

Broadband Technology Group



Full Line Catalog 2007

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Main TOC

MAXRAD



ISO 9001:2000 Registered

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Mobile Low Profile Vertical

The MLPV antennas provide superior pattern coverage for mobile and fixed applications using TETRA, UHF, 700 MHz, 800 MHz, 900 MHz, DCS, PCS and WiFi frequencies. Their design provides industry leading wideband performance and reliability, with minimum loss and no tuning required. Dual band versions (MLPVDB series) are also available. The MLPV and MLPVDB antennas feature an attractive, compact package and are ideal for indoor or outdoor applications requiring minimum visibility. Color options are black over a chrome base, white over a chrome base or black over a black base. Dual band models are also available in a “short” housing for minimum visibility.

Features

- Attractive, low profile design
- Industry leading wideband performance provides outstanding coverage across multiple frequency bands with no tuning required
- Excellent pattern coverage for mobile and base station applications
- No tune design allows faster, more reliable installations
- Mates with all 1-1/8”-18 thread mounts, including 3/4” mounts



BMLPV2400NGP



MLPV800



WMLPVDB800/1900S

BMLPV800HD or
BMLPVDB800/1900HD

Mounting

The following mounts are recommended with these antennas:

Model	Options
MLFML195C	High performance permanent 3/4” hole, 1-1/8”-18 thread mount. Includes 17 ft of Pro-Flex™ Plus 195 cable. Loose TNC male connector included.
GMLFML195C	High performance 3-1/4” diameter magnetic base, 1-1/8”-18 thread mount. Includes 15 ft of Pro-Flex™ Plus 195 cable terminated with TNC male connector (attached).
MTPM800	5/8” hole, 1-1/8”-18 thread thick plate mount. Terminates in an N, female connector. No cable - order cable assembly separately.
MVP	5/8” hole, vandal proof mount. No cable or connector.
MMF	3/4” hole, 1-1/8”-18 mount for frequencies above 1 GHz. Terminates in an SMA, male connector. No cable - order cable assembly (SMA, female ending) separately.

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Technical Data

Maximum Power: 150 watts (all models, except UHF) 100 watts (UHF models)
Polarization: Vertical
Nominal Impedance: 50 Ohm
VSWR: < 1.5:1 < 1.5:1/2:1 (dual band models) < 2.0:1 (UHF models)
Color: Black over chrome, black over black or white over chrome
Radiator Material: Solid Brass
Mount Method: 1-1/8” - 18 thread permanent mounts

For detailed specifications, visit <http://antenna.pctel.com>.

Antenna Electrical Specifications

Model	Frequency Range	Bandwidth	Gain
MLPV350*	351-369 MHz	18 MHz	Unity
MLPV370*	372-389 MHz	17 MHz	Unity
MLPV380*	380-410 MHz	30 MHz	Unity
MLPV406*	406-440 MHz	34 MHz	Unity
MLPV430*	430-480 MHz	50 MHz	Unity
MLPV450*	450-512 MHz	62 MHz	Unity
MLPV700*	760-870 MHz	110 MHz	4 dBi***
MLPV800*	806-960 MHz	154 MHz	3 dBi***
BMLPV800HD	806-960 MHz	154 MHz	3 dBi***
MLPVDB800/1900*	806-960 MHz and 1710-1990 MHz	154 MHz and 280 MHz	3 dBi
BMLPVDB800/1900HD	806-960 MHz and 1710-1990 MHz	154 MHz and 280 MHz	3 dBi
BMLPVDB800/1900SHD	806-960 MHz and 1710-1990 MHz	154 MHz and 280 MHz	3 dBi
MLPVDB800/1900S*	806-960 MHz and 1710-2500 MHz	154 MHz and 790 MHz	3 dBi/4 dBi
MLPVDB902/2400*	902-928 MHz and 2400-2500 MHz	26 MHz and 100 MHz	3 dBi
MLPVDB902/2400S*	902-928 MHz and 2400-2500 MHz	26 MHz and 100 MHz	3 dBi
MLPV1700*	1700-2700 MHz	1000 MHz	4 dBi***
MLPV2400NGP*	2.4-2.5 GHz	100 MHz	3 dBi
MLPV4900**	4.9-5.9 GHz	100 MHz	4 dBi
MLPV4900NGP**	4.9-5.0 GHz	100 MHz	3 dBi

Mechanical Specifications

Model (all colors)	Antenna Dimensions	Weight (Mass)
MLPV350*	3.38" H x 1.5" OD	5 oz
MLPV370*	3.38" H x 1.5" OD	5 oz
MLPV380*	3.38" H x 1.5" OD	5 oz
MLPV406*	3.38" H X 1.5" OD	5 oz
MLPV430*	3.38" H X 1.5" OD	5 oz
MLPV450*	3.38" H X 1.5" OD	5 oz
MLPV800 and MLPV700*	2.4" H X 1.5" OD	0.29 lbs (0.13 kg)
BMLPV800HD, BMLPV800/1900HD	2.4" H x 1.5" W x 1.7" D (at the base)	0.44 lbs (0.19 kg)
BMLPVDB800/1900SHD	1.79" H x 1.5" W x 1.7" D (at the base)	0.34 lbs (0.15 kg)
MLPVDB800/1900*	2.4" H X 1.5" OD	0.29 lbs (0.13 kg)
MLPVDB800/1900S*	1.79" H x 1.5" OD	0.29 lbs (0.13 kg)
MLPVDB902/2400*	2.4" H X 1.5" OD	0.29 lbs (0.13 kg)
MLPVDB902/2400S*	1.79" H x 1.5" OD	0.29 lbs (0.13 kg)
MLPV1700*	1.79" H x 1.5" OD	0.34 lbs (0.15 kg)
MLPV2400NGP*	3.38" H x 1.5" OD	5 oz
MLPV4900**	1.79" H x 1.5" OD (at the base)	0.34 lbs (0.15 kg)
MLPV4900NGP	2.4" H X 1.5" OD	0.29 lbs (0.13 kg)

* Also available in Black (B) or White (W). Add B or W prefix to model number to order.

** Also available in Black (B). Add B prefix to model number to order.

*** Average gain value. Gain value is dependent on ground plane and frequency.

LHA Low Profile Transit Antennas

The LHA low profile vehicle antennas are designed for transit applications with severe height limitations such as buses, trains, and trucks. Radiation is omnidirectional and the antenna is vertically polarized. The base plate is fitted with a high stability trimmer capacitor to facilitate VSWR adjustment. The radiating element is enclosed in a tough ABS molding with an aluminum base plate. These antennas are also suitable for ceiling mounting in large buildings, shopping centers or railway stations.

Features

- Compact design for limited height clearance vehicular applications
- High impact ABS radome for long lasting performance
- Suitable for high pressure vehicle washing
- Digital PMR mobile or fixed applications



Antenna Electrical Specifications

Model	Frequency	Gain
LHA400*	380-430 MHz	Unity
LHA400/5M	380-430 MHz	Unity
LHA450*	420-470 MHz	Unity
LHA450/5M	420-470 MHz	Unity

Mechanical Specifications

Model	Feeder Length	Weight (Mass)
LHA400*	3.28 ft (1 m) feeder, BNC attached	0.88 lbs (0.4 kg)
LHA400/5M	16.4 ft (5 m) feeder	0.88 lbs (0.4 kg)
LHA450*	3.28 ft (1 m) feeder, BNC attached	0.88 lbs (0.4 kg)
LHA450/5M	16.4 ft (5 m) feeder	0.88 lbs (0.4 kg)

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Technical Data

Maximum Power: 100 watts
Polarization: Vertical
Nominal Impedance: 50 ohms
VSWR: 1.5:1 typically
Radiator Material: Black ABS, UV stabilized Aluminum base
Lightening Protection: DC grounded
E-Plane Beamwidth (-3 dB): As for $\lambda/4$ antenna
H-Plane Beamwidth (-3 dB): Circular within +/- 0.5 dB (using ground plane $\lambda/2$ square)
Feeder Tail: 1m URM76 (other lengths available)
Dimensions (diameter x H): 7.01 in x 1.38 in (178 mm x 35 mm)
Connector Options: BNC plug standard (attached)
Antenna Type: Low profile horizontal omnidirectional use antenna

For detailed specifications,
visit <http://antenna.pctel.com>.

*Fitted with single trimmer



MHA Low Profile Transit Antennas

The MHA low profile vehicle antennas are designed for transit applications operating under severe height limitations such as buses, trains, and trucks. Radiation is omnidirectional and the antenna is vertically polarized. All models are fitted with high stability trimmer capacitors for VSWR adjustment. The radiating element is enclosed in a tough ABS moulding with an aluminum base plate.

Features

- Compact robust protected antennas for limited height and high vehicle applications
- High impact ABS cover for long lasting operation
- Suitable for high pressure vehicle washing

MAXRAD

Technical Data

Maximum Power: 100 watts
Polarization: Vertical
Nominal Impedance: 50 ohms
VSWR: 1.5:1 typically
Radiator Material: Black ABS, UV stabilized Aluminum base
Lightening Protection: DC ground
E-Plane Beamwidth (-3 dB): As for $\lambda/4$ antenna
H-Plane Beamwidth (-3 dB): Circular within ± 0.5 dB (using groundplane $\lambda/2$ square)
Feeder Tail: 3.28 ft (1 m) URM76 (other lengths available)
Connector Options: BNC plug standard (attached)
Antenna Type: Low profile antenna for omnidirectional use and wideband frequency

Antenna Electrical Specifications

Model	Frequency	Bandwidth	Gain
MHA80S*	68-90 MHz	200 kHz @ 80 MHz	-5 dBd @ 80 MHz
MHA80TV4**	68-90 MHz	200 kHz @ 80 MHz	-5 dBd @ 80 MHz
MHA80TV5**	68-90 MHz	200 kHz @ 80 MHz	-5 dBd @ 80 MHz
MHAFMRX	87.5-108 MHz	200 KHz @ 90 MHz	Unity
MHA170*	156-174 MHz	0.7% @ 150 MHz 1.0% @ 165 MHz	Unity @ 155+ MHz

Mechanical Specifications

Model	Feeder Length	Dimensions	Weight (Mass)
MHA80S*	3.28 ft (1 m)	25 in x 7.48 in x 2.36 in (635 mm x 190 mm x 60 mm)	0.88 lbs (0.4 kg)
MHA80TV4**	19.7 ft (6 m)		0.88 lbs (0.4 kg)
MHA80TV5**	32.8 ft (10 m)		0.88 lbs (0.4 kg)
MHAFMRX	.16 ft (.5 m)		(1.4 kg)
MHA170*	3.28 ft (1 m)		0.88 lbs (0.4 kg)

For detailed specifications,
visit <http://antenna.pctel.com>.

*Fitted with single trimmer **Fitted with two trimmers

Low Profile Antennas, 138-225 MHz

Type LP microstrip antennas feature a low profile design especially useful for high vehicles where clearance of obstacles is a problem. The antenna incorporates a trimmer to facilitate tuning over the frequency range 138-225MHz. Radiation is omnidirectional and the antenna is vertically polarized.

Features

- Protected antenna for limited height and high vehicle situations
- Omnidirectional
- Wide bandwidth
- Suitable for high pressure vehicle washing



Antenna Electrical Specifications

Model	Frequency	Bandwidth	E-Plane Beamwidth	H-Plane Beamwidth	Gain (Rel. $\lambda/4$ antenna)
LP150	138-156 MHz	2-3 MHz	-3 dB	-3 dB	Unity @ 155 MHz upwards
LP170	156-175 MHz	2-3 MHz	-3 dB	-3 dB	Unity @ 155 MHz upwards
LP200	175-225 MHz	2-3 MHz	-3 dB	-3 dB	Unity @ 155 MHz upwards
LP170V2	159.025-163.525 MHz	2-3 MHz	-3 dB	-3 dB	Unity
LP200V10	188 MHz	2-3 MHz	-3 dB	-3 dB	Unity

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Technical Data

Maximum Power: 50 watts
Polarization: Vertical
Nominal Impedance: 50 ohms
VSWR: 1.5:1 Typical
Radome Housing: White high impact plastic
Feeder Tail: 1m coaxial cable
Mounting Method: Screw or Rivet 476 mm PCD

Mechanical Specifications

Model	Feeder Length	Dimensions (Dia x H)	Weight (Mass)	Connector
LP150	1.5 M	20.1" x 1.5" (510mm x 38mm)	2.5 kg	BNC Plug
LP170	1.5 M	20.1" x 1.5" (510mm x 38mm)	2.5 kg	BNC Plug
LP200	1.5 M	20.1" x 1.5" (510mm x 38mm)	2.5 kg	BNC Plug
LP170V2	5 M	20.1" x 1.5" (510mm x 38mm)	2.5 kg	BNC Plug
LP200V10	12 M	20.1" x 1.5" (510mm x 38mm)	2.5 kg	No Connector

For detailed specifications, visit <http://antenna.pctel.com>.



Low Profile Antennas, 170-225 MHz

The LP3 low profile antennas are designed for transit applications operating under severe height limitations such as buses, trains, and trucks. Radiation is omnidirectional and the antennas are vertically polarized. Type LP3 has unity gain over the transmit segment (5 MHz) of the frequency band. The antenna LP3 has no tuning devices at all, so no tuning is necessary. The radiating element is enclosed in a tough ABS moulding with an aluminium base plate. The moulding is ribbed for additional impact strength.

Features

- Protected antenna for limited height and high vehicle situations
- Omnidirectional
- Wide bandwidth
- Unity gain
- Field tuning not required
- High impact ABS cover
- Suitable for high pressure vehicle washing

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Antenna Electrical Specifications

Model	Frequency**	E-Plane Beamwidth	H-Plane Beamwidth	Gain
LP3TX	193-198 MHz	-3 dB	-3 dB	Unity
LP3RX	201-206 MHz	-3 dB	-3 dB	Unity
LP3/2MS168E1401	193-206 MHz	-3 dB	-3 dB	Unity
LP3/ITS	177.47-185.47 MHz + GPS	-3 dB	-3 dB	Unity
LP3/ITVSV1	177.47-185.47 MHz + GPS	-3 dB	-3 dB	Unity
LP3/ITVSV2	177.47-185.47 MHz + GPS	-3 dB	-3 dB	Unity
LP3/S105	194-207 MHz	-3 dB	-3 dB	Unity
LP3V11	166.6-171.01 MHz	-3 dB	-3 dB	Unity
LP3V26	159.081 MHz	-3 dB	-3 dB	Unity
LP3V27	165.07-169.87 MHz	-3 dB	-3 dB	Unity
LP3V4	177-189 MHz	-3 dB	-3 dB	Unity
LP3V6	202-207 MHz	-3 dB	-3 dB	Unity

Technical Data

Maximum Power: 100 watts
Polarization: Vertical
Nominal Impedance: 50 ohms
VSWR: 1.5:1 Typical
Radome Housing: Black ABS, UV stabilized material with aluminum baseplate
Bandwidth: 5MHz at 195 MHz
Feeder Tail: 1m URM76 (other lengths available)
Lightening Protection: DC ground
Termination: N male (Other terminations available)
Mounting Method: Screw or Rivet

For detailed specifications, visit <http://antenna.pctel.com>.

Mechanical Specifications

Model	Feeder Length	Dimension (Dia x H)	Weight (Mass)	Connector (Antenna/Plug)
LP3TX	1 m	18" L x 17" W x 2" H (470 x 430 x 50 mm)	2.5 kg	BNC Plug
LP3RX	1 m	18" L x 17" W x 2" H (470 x 430 x 50 mm)	2.5 kg	BNC Plug
LP3/2MS168E1401	2 m	18" L x 17" W x 2" H (470 x 430 x 50 mm)	2.5 kg	BNC Plug
LP3/ITS	1 m/5 m	18" L x 17" W x 2" H (470 x 430 x 50 mm)	2.5 kg	BNC Plug/SMB Plug
LP3/ITVSV1	2 m/2 m	18" L x 17" W x 2" H (470 x 430 x 50 mm)	2.5 kg	PL259 Plug/SMB Plug
LP3/ITVSV2	7 m/7 m	18" L x 17" W x 2" H (470 x 430 x 50 mm)	2.5 kg	Loose PL259/SMA Plug
LP3/S105	6 m	18" L x 17" W x 2" H (470 x 430 x 50 mm)	2.5 kg	BNC Plug
LP3V11	8 m	18" L x 17" W x 2" H (470 x 430 x 50 mm)	2.5 kg	Loose PL259 Crimp Plug
LP3V26	1.5 m	18" L x 17" W x 2" H (470 x 430 x 50 mm)	2.5 kg	MFME
LP3V27	1.5 m	18" L x 17" W x 2" H (470 x 430 x 50 mm)	2.5 kg	FME Male
LP3V4	1 m	18" L x 17" W x 2" H (470 x 430 x 50 mm)	2.5 kg	BNC Plug
LP3V6	400 mm	18" L x 17" W x 2" H (470 x 430 x 50 mm)	2.5 kg	BNC Plug

** For other frequencies contact Sigma Wireless Technologies.

Optimum performance is achieved when the antennas is fitted to a metallic groundplane or roof $\lambda/2$ square



The MEFC24005 (top and left) elevated feed antenna is ideal for public safety vehicles with overhead light bars that often obstruct the RF signal.



BMEFC49005HF

MAXRAD

Technical Data

Maximum Power: 50 watts (MEFC49005HF) 10 watts (MEFC58005HF)
Polarization: Vertical
Nominal Impedance: 50 Ohm
VSWR: < 1.5:1
Radome Material: Black Polycarbonate
Radiator Material: .100" OD stainless steel; bright (MEFC) or black finish (BMEFC)
Mount Method: 3/4" hole mount*

For detailed specifications,
visit <http://antenna.pctel.com>.

Elevated Feed Mobile Data Antennas

These elevated feed mobile antennas are designed for installations requiring elevation of the antenna over surrounding objects that could prevent true omnidirectional coverage. They are ideal for public safety vehicles with overhead light bars that often obstruct the RF signal. They are designed to operate both on and off a ground plane without degradation in VSWR performance.

Features

- Feed point is elevated above its mounting surface, easily clearing the overhead light bars in police and ambulance vehicles which often obstruct the RF signal.
- Quiet, closed coil trilinear rod.
- Excellent VSWR performance on or off a ground plane.
- Rugged molded polymer elevated feed housing and stainless steel spring and rod, for maximum resistance to every day wear and tear. Mates with all 1-1/8"-18 thread mounts, including 3/4" mounts.
- High frequency microwave mounts utilize Pro-Flex™ Plus 195 low loss coaxial cable for optimal performance at microwave frequencies.
- 2.4 GHz model available with DC grounding option.

Mounting Options

Antenna Model	Recommended Mount Model(s)	Options
(B)MEFC24005	MLFML195C	Low frequency 3/4" hole permanent mount, 17 ft. Pro-Flex™ Plus 195, TNC male standard
(B)MEFC24005	GMLFML195C	Low frequency magnetic mount, 17 ft. Pro-Flex™ Plus 195, TNC male standard
(B)MEFC49005HF (B)MEFC58005HF	MHFML195C*	Permanent Mount, 17 ft. Pro-Flex™ Plus 195, TNC male loose
(B)MEFC49005HF (B)MEFC58005HF	GMHFML195C*	Magnetic Mount, 12 ft. Pro-Flex™ Plus 195, TNC male attached

* Models (B)MEFC49005HF and (B)MEFC58005HF must be ordered with recommended mount(s) listed above.

Antenna Electrical Specifications

Model	Frequency Range	Gain (ground Plane)	Gain (no Ground Plane)	Horizontal Beamwidth @1/2 Power	Vertical Beamwidth @1/2 Power
(B)MEFC24005**	2.4-2.5 GHz	5 dBi	3.5 dBi	360°	45°
(B)MEFC49005HF	4.9-5.0 GHz	5.5 dBi	5.5 dBi	360°	18°
(B)MEFC58005HF	5.7-5.8 GHz	5.5 dBi	5.5 dBi	360°	18°

Mechanical Specifications

Model	Antenna Height	Weight (Mass)	Temperature Range	Wind Loading (Frontal) @ 125mph	Bending Moment @ 125 mph
(B)MEFC24005**	16" (406.4 mm)	0.5 lbs (0.227 kg)	-40°C to +70°C	3.1 lbf.	18.6 in-lb
(B)MEFC49005HF	12"	0.5 lbs	-40°C to +70°C	3.1 lbf.	18.6 in-lb
(B)MEFC58005HF	12"	0.5 lbs	-40°C to +70°C	3.1 lbf.	18.6 in-lb

*Prefix "B" indicates black.

**Add suffix "DC" for DC grounding option.

No Ground Plane Elevated Feed Point Antennas

The elevated feed point antennas are designed for those applications that lack a ground plane. They are ideal for mirror or trunk lid mounting applications or for vehicles with non-metallic surfaces where no ground plane is available.

Features

- Elevated feed point eliminates vehicle “shadow” effect
- Does not require a ground plane; excellent for non-metallic vehicles
- Stainless steel shock spring included on all models
- Mates with all 1-1/8”-18 thread mounts, including 3/4” mounts
- Optional “push pin” mount contact interface on select models



MAXRAD

Technical Data

Maximum Power: 125 watts (all models, except 4000 series) 200 watts (UHF series models)
Polarization: Vertical
Nominal Impedance: 50 ohms
VSWR: < 1.5:1
Radiator Material: .100” diameter stainless steel; bright or black finish
Spring: Stainless steel; bright or black finish
Phasing Coil Housing: UHF models: Molded polymer jacket with bright or black chrome plated brass bushing 700, 800 & 900 MHz models: Molded polymer jacket with copper, nickel and chrome plated brass bushing
Rod Ferrule: 5/16”-24 thread; bright or black chrome plated brass
Body: Molded polymer

Antenna Electrical Specifications

Model	Frequency Range	Factory Tuned Frequency	Gain	Rod/Coil Type
(B)MUF4085(P)	406-430 MHz	UHF Antennas are field tunable within the specified frequency range.	5 dB	Collinear/Closed
(B)MUF4080	406-440 MHz		Unity	Straight
(B)MUF4325(P)	430-450 MHz		5 dB	Collinear/Closed
(B)MUF4600(P)	440-480 MHz		Unity	Straight
(B)MUF4525(P)	450-470 MHz		5 dB	Collinear/Closed
(B)MUF4725	470-490 MHz	815 MHz	5 dB	Collinear/Closed
(B)MUF4800	480-512 MHz		Unity	Straight
(B)MUF4925	490-512 MHz		5 dB	Collinear/Closed
(B)MUF7603(P)	760-870 MHz		3 dB	Collinear/Closed
(B)MUF8040	806-866 MHz		Unity	Straight
(B)MUF8023	806-866 MHz	815 MHz	3 dB	Collinear/Open
(B)MUF8073	806-866 MHz	815 MHz	3 dB	Collinear/Closed
(B)MUF8035	806-866 MHz	815 MHz	5 dB	Trilinear/Open
(B)MUF8045	806-866 MHz	815 MHz	5 dB	Trilinear/Closed
(B)MUF8400	825-896 MHz	835 MHz	Unity	Straight
(B)MUF8043	825-896 MHz	835 MHz	3 dB	Collinear/Open
(B)MUF8083	825-896 MHz	835 MHz	3 dB	Collinear/Closed
(B)MUF8405	825-896 MHz	835 MHz	5 dB	Trilinear/Open
(B)MUF8455	825-896 MHz	835 MHz	5 dB	Trilinear/Closed
(B)MUF9113	870-950 MHz	898 MHz	3 dB	Collinear/Open
(B)MUF9040	896-940 MHz	898 MHz	Unity	Straight
(B)MUF9043	896-940 MHz	898 MHz	3 dB	Collinear/Open
(B)MUF9083	896-940 MHz	898 MHz	3 dB	Collinear/Closed
(B)MUF9105	896-940 MHz	898 MHz	5 dB	Trilinear/Open
(B)MUF9115	896-940 MHz	898 MHz	5 dB	Trilinear/Closed

For detailed specifications, visit <http://antenna.pctel.com>.

*Prefix “B” indicates black. Spring included.

** Suffix “P” indicates “Push” pin mount contact interface option.

Mechanical Specifications

Model	Antenna Height at lowest frequency
(B)MUF4085(P)	Approximately 38"
(B)MUF4080	Approximately 18"
(B)MUF4325(P)	Approximately 38"
(B)MUF4600(P)	Approximately 18"
(B)MUF4525(P)	Approximately 38"
(B)MUF4725	Approximately 38"
(B)MUF4800	Approximately 18"
(B)MUF4925	Approximately 38"
(B)MUF7603(P)	Approximately 23"
(B)MUF8040	Approximately 12"
(B)MUF8023	Approximately 23"
(B)MUF8073	Approximately 23"
(B)MUF8035	Approximately 33"
(B)MUF8045	Approximately 33"
(B)MUF8400	Approximately 12"
(B)MUF8043	Approximately 23"
(B)MUF8083	Approximately 23"
(B)MUF8405	Approximately 33"
(B)MUF8455	Approximately 33"
(B)MUF9113	Approximately 22.5"
(B)MUF9040	Approximately 11.5"
(B)MUF9043	Approximately 22.5"
(B)MUF9083	Approximately 22.5"
(B)MUF9105	Approximately 32"
(B)MUF9115	Approximately 32"

*Prefix "B" indicates black. Spring included.

** Suffix "P" indicates "Push" pin mount contact interface option.



ASPDM913U Installed

3 dB Gain, No Ground Plane Elevated Feed, Cellular/PCS Dual Band Antenna

Our new **Antenna Specialists®** elevated feed, dual band antenna provides 3 dB gain and optimal omnidirectional coverage of both cellular and PCS frequencies. It features a 3/8"-24 ferrule stud adaptable to standard mirror bracket mounts, side-body mounts and shock springs. Its rugged design withstands high vibration truck environments. This antenna operates both on or off a ground plane without degradation in VSWR performance.

Features

- Dual Band Performance - provides optimal coverage of cellular and PCS frequencies with 3 dB gain
- Ground Plane Independent - provides maximum installation flexibility on or off a ground plane without degradation in VSWR performance
- 3/8"-24 Ferrule Stud - adaptable to standard, off-the-shelf mirror bracket mounts, side body mounts and shock springs
- Rugged - withstands high vibration truck environments

Antenna Electrical Specifications

Model	Frequency Range	Bandwidth	E-Plane Beamwidth	Nominal Gain
ASPDM913U	824-894/1850-1990 MHz	70 MHz/140 MHz	34° / 22°	3 dB/3 dB

Mechanical Specifications

Model	Antenna Height (from mounting plane)
ASPDM913U	19"

Technical Data

Maximum Power: 10 watts
Polarization: Vertical
Nominal Impedance: 50 ohms
VSWR: < 2.0:1
Radiator Material: 0.090" 17-7 stainless steel with black E-coat
Rod Ferrule: 3/8-24 ferrule stud with black E-coat
Coax Cable: 17 ft PRO-FLEX™ PLUS cable
Connector: FME (attached)
Extension Housing Materials: Black polycarbonate and black polycarbonate-blend resins
Mounting Dimensions: 0.625" min. diameter tube to 1.125" max. diameter tube (truck mirror tube support)
Mount Method: Mirror mount

For detailed specifications, visit <http://antenna.pctel.com>.

3 dB Elevated Feed Point Antennas

The elevated feed point design of these **Antenna Specialists®** antennas provides true omnidirectional coverage when off-roof mounting is necessary. They operate with or without a ground plane, allowing maximum installation flexibility on various parts of the vehicle.

Features

- Attractive - all black DURA-COAT™ finish complements new vehicle styling
- High Performance - elevated feed point design provides omnidirectional coverage when off-roof mounting is required
- Versatile - ground plane independent design allow installation where necessary, for both mobile or fixed applications
- Problem Solver - corrects coverage problems caused by the wrong positioning of rooftop antennas.

MAXRAD

Technical Data

Maximum Power: Please see Electrical Specifications
Polarization: Vertical
Nominal Impedance: 50 ohms
VSWR: < 2.0:1
Radiator Material: One piece stainless steel collinear with black DURA-COAT™ finish. <i>(Mounting these antennas on a location where they may be struck below the stainless steel whip is not recommended.)</i>
Spring Material: Stainless steel, black DURA-COAT™
Base: Positive male-female contact with stainless steel, plated steel, aluminum or brass parts (Mount included for ASPG918)
Coax Cable: 17 ft PRO-FLEX™ PLUS (sold separately with mount)
Extension Housing Materials: Black polycarbonate and black polycarbonate-blend resins
Mounting Dimensions (truck mirror tube support): 0.625" min. diameter tube to 1.125" max. diameter tube
Mount Method: Compatible with low profile male-female contact mounts (sold separately)

For detailed specifications, visit <http://antenna.pctel.com>.



ASP915



ASPG918 - 7/8-15/16" hole mount antenna with integral N female connector for fixed installation applications

Antenna Electrical Specifications

Model	Frequency Range	Bandwidth	Gain	Maximum Power
ASPA915	806-869 MHz	63 MHz	3 dB	40 watts
ASPG915	890-960 MHz	70 MHz	3 dB	40 watts
ASPG918	890-960 MHz	58 MHz	3 dB	10 watts

Mechanical Specifications

Model	Connector	Approximate Antenna Height	Mount
ASPA915	None	24"	None
ASPG915	None	24"	None
ASPG918	N female	24"	7/8-15/16" hole mount with integral N female Cable sold separately

* Ground plane independent.

Heavy Duty Low Profile Base Gain Antennas

These antennas feature a heavy-duty low profile base with tapered loading coil jacket, chrome plated brass fittings and an optional heavy-duty stainless steel spring. Available with either an open coil rod or our “quiet” closed coil rod design.

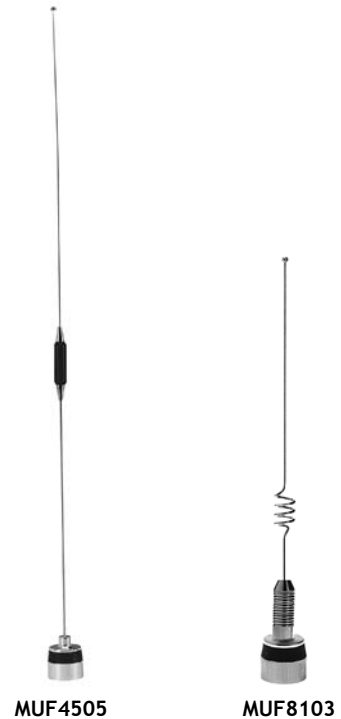
Features

- Low profile double-sealed housing for maximum weather-proofing
- Plated fittings for superior performance and durability in the toughest environments
- Mates with all 1-1/8”-18 thread mounts, including 3/4” mounts

Antenna Electrical Specifications

Model	Frequency Range	Factory Tuned Frequency	Gain	Rod/Coil Type
MUF3505(S)	350-400 MHz	Antennas are field tunable within the specified frequency range.	5 dB	Collinear/Closed
MUF3805(S)	380-403 MHz		5 dB	Collinear/Closed
MUF4065(S)	406-430 MHz		5 dB	Collinear/Closed
MUF4305(S)	430-450 MHz		5 dB	Collinear/Closed
MUF4505(S)	450-470 MHz		5 dB	Collinear/Closed
MUF4705(S)	470-490 MHz		5 dB	Collinear/Closed
MUF4905(S)	490-512 MHz		5 dB	Collinear/Closed
MUF8105(S)	806-866 MHz	815 MHz	5 dB	Trilinear/Open
MUF8005(S)	806-866 MHz	815 MHz	5 dB	Trilinear/Closed
MUF8103(S)	806-896 MHz	815 MHz	3 dB	Collinear/Open
MUF8003(S)	806-896 MHz	815 MHz	3 dB	Collinear/Closed
MUF8305(S)	825-896 MHz	835 MHz	5 dB	Trilinear/Open
MUF8325(S)	825-896 MHz	835 MHz	5 dB	Trilinear/Closed
MUF9103(S)	896-940 MHz	898 MHz	3 dB	Collinear/Open
MUF9003(S)	896-940 MHz	898 MHz	3 dB	Collinear/Closed
MUF9025(S)	896-940 MHz	898 MHz	5 dB	Trilinear/Open
MUF9035(S)	896-940 MHz	898 MHz	5 dB	Trilinear/Closed

*Suffix “S” indicates spring.



MAXRAD

Technical Data

Maximum Power: 200 watts
Nominal Impedance: 50 ohms
VSWR: < 1.5:1
Radiator Material: .100” diameter stainless steel
Optional Spring: Stainless steel
Phasing Coil Housing: Low profile molded polymer jacket with copper, nickel and chrome plated bushing
Base Coil Housing: Low profile molded polymer with copper, nickel and chrome plated bushing
Antenna Type: 3 dB: 5/8 wave over a 1/4 wave 5 dB: 5/8 wave over a 1/4 wave

For detailed specifications, visit <http://antenna.pctel.com>.

Mechanical Specifications

Model	Antenna Length at lowest frequency
MUF3505(S)	Approximately 32"
MUF3805(S)	Approximately 32"
MUF4065(S)	Approximately 32"
MUF4305(S)	Approximately 32"
MUF4505(S)	Approximately 32"
MUF4705(S)	Approximately 32"
MUF4905(S)	Approximately 32"
MUF8105(S)	Approximately 25"
MUF8005(S)	Approximately 25"
MUF8103(S)	Approximately 15.5"
MUF8003(S)	Approximately 15.5"
MUF8305(S)	Approximately 25"
MUF8325(S)	Approximately 25"
MUF9103(S)	Approximately 14"
MUF9003(S)	Approximately 14"
MUF9025(S)	Approximately 25"
MUF9035(S)	Approximately 25"

*Suffix "S" indicates spring.

VHF Base Loaded Chrome Coil Antennas, No Ground Plane

Designed for installations that lack a suitable ground plane, these antennas feature a tapered loading coil jacket with chrome plated fittings and an optional heavy-duty stainless steel spring. The base loaded matching network supports the collinear or trilinear rod sections above without the need of a ground plane.

Features

- No ground plane required
- Rugged construction; optional heavy-duty shock spring
- Sleek, sturdy, sealed phasing coil design
- Mates with all 1-1/8"-18 thread mounts, including 3/4" mounts

Antenna Electrical Specifications

Model	Frequency Range	Factory Tuned Frequency	Gain
MHB5802132(S)*	132-174 MHz	Field tunable within specified frequency range	Unity no ground plane (2.4 dB with a ground plane)
MHB5802(S)*	144-174 MHz	Field tunable within specified frequency range	Unity no ground plane (2.4 dB with a ground plane)
MHB2002(S)*	200-225 MHz	Field tunable within specified frequency range	Unity no ground plane (2.4 dB with a ground plane)
MHB2252(S)*	225-250 MHz	Field tunable within specified frequency range	Unity no ground plane (2.4 dB with a ground plane)

Mechanical Specifications

Model	Antenna Height at lowest frequency
MHB5802132(S)*	Approximately 58"
MHB5802(S)*	Approximately 58"
MHB2002(S)*	Approximately 58"
MHB2252(S)*	Approximately 58"



MHB5802

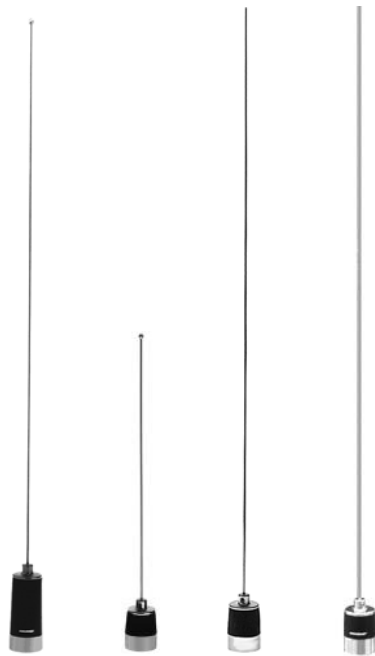
MAXRAD

Technical Data

Maximum Power: 200 watts
Nominal Impedance: 50 ohms
VSWR: < 1.5:1
Radiator Material: .100"-.062" diameter tapered
Optional Spring: Stainless steel
Base Coil Housing: Molded polymer jacket with copper, nickel and chrome plated bushing
Antenna Type: Base loaded 1/2 Wave

For detailed specifications, visit <http://antenna.pctel.com>.

*Suffix "S" (Spring) is not a retrofit option, please indicate at time of order.



MHBDC5800 MUF4503 MHB5800 MHB5800HD

MAXRAD

Technical Data

Maximum Power: 200 watts
Nominal Impedance: 50 ohms
VSWR: < 1.5:1
Radiator Material: .100" - diameter stainless steel (UHF models) .125" - .100" diameter tapered stainless steel (MHB5800HD models)
Grounding: DC Grounded (MHBDC models only)
Optional Spring: Stainless steel
Base Coil Housing: Molded polymer jacket with copper, nickel and chrome plated bushing
Antenna Type: Base loaded 5/8 Wave

For detailed specifications, visit <http://antenna.pctel.com>.

5/8 Wave Heavy Duty Antenna

These 5/8 Wave antennas utilize the MAXRAD chrome coil design with the enhancement of a heavy duty tapered rod for maximum durability in tough environments.

Features

- The matching coil is supported by a low loss coil for superior performance in heavy shick applications
- The tapered coil housing design enhances appearance and prevents moisture from entering the load
- Mates with all 1-1/8" -18 thread mounts, including 3/4" mounts

Antenna Electrical Specifications

Model	Frequency Range	Factory Tuned Frequency	Gain with/without Ground Plane
MHB5812**	118-132 MHz	Field tunable	3 dB
MHBDC5800132(S)***	132-174 MHz	Field tunable	3 dB
MHB5800132(S)*	132-174 MHz	Field tunable	3 dB
MHBDC5800(S)**	144-174 MHz	Field tunable	3 dB
MHB5800HD(S)*	144-174 MHz	Field tunable	3 dB
MHB5800(S)*	144-174 MHz	Field tunable	3 dB
MHB5820(S)*	200-225 MHz	Field tunable	3 dB
MHBDC2202***	215-230 MHz	No Field tuning required	2 dB/Unity
MHB5825(S)*	225-250 MHz	Field tunable	3 dB
MHB5850(S)*	250-280 MHz	Field tunable	3 dB
MUF3003(S)*	300-325 MHz	Field tunable	3 dB
MUF4063(S)*	406-430 MHz	Field tunable	3 dB
MUF4303(S)*	430-450 MHz	Field tunable	3 dB
MUF4503(S)*	450-470 MHz	Field tunable	3 dB
MUF4703(S)*	470-490 MHz	Field tunable	3 dB
MUF4903(S)*	490-512 MHz	Field tunable	3 dB

* Suffix "S" indicates spring and is not a retrofit option, please indicate at time of order.

** Model MHB5812 includes a spring

*** Models MHBDC5800132(S) and MHBDC5800(S) have a 5 MHz bandwidth @ 1.5:1 VSWR. Model MHBDC2202 has a 15 MHz bandwidth @ 1.5:1 VSWR.

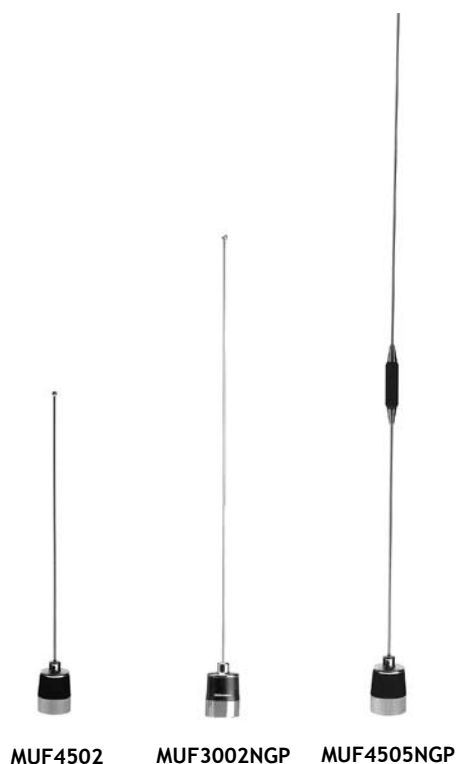
Mechanical Specifications

Model	Antenna Height at lowest frequency
MHB5812**	Approximately 58"
MHBDC5800132(S)***	Approximately 58"
MHB5800132(S)*	Approximately 58"
MHBDC5800(S)***	Approximately 58"
MHB5800HD(S)*	Approximately 52"
MHB5800(S)*	Approximately 58"
MHB5820(S)*	Approximately 58"
MHBDC2202	Approximately 27"
MHB5825(S)*	Approximately 58"
MHB5850(S)*	Approximately 58"
MUF3003(S)*	Approximately 16"
MUF4063(S)*	Approximately 16"
MUF4303(S)*	Approximately 16"
MUF4503(S)*	Approximately 16"
MUF4703(S)*	Approximately 16"
MUF4903(S)*	Approximately 16"

* Suffix "S" indicates spring and is not a retrofit option, please indicate at time of order.

*Model MHB5812 includes a spring

**Models MHBDC5800132(S) and MHBDC5800(S) have a 5 MHz bandwidth @ 1.5:1 VSWR. Model MHBDC2202 has a 15 MHz bandwidth @ 1.5:1 VSWR.


MAXRAD

Technical Data

Maximum Power: 200 watts
Nominal Impedance: 50 ohms
VSWR: < 1.5:1
Radiator Material: .100" diameter stainless steel
Optional Spring: Stainless steel (except MUF3002NGP)
Phasing Coil Housing: Molded polymer jacket with bright or black chrome plated bushing
Base Coil Housing: Molded polymer jacket with copper, nickel and chrome plated bushing
Mount Method: Compatible with 3/4" hole mounts
Antenna Type: Base loaded 5/8 wave over a 1/2 wave (3 dB & 5 dB models) Base loaded 1/2 wave (unity gain models) 1/2 wave antenna (MUF3002NGP)

UHF Base Loaded Chrome Coil Antennas, No Ground Plane

Designed for installations that lack a suitable ground plane, these antennas feature a tapered loading coil jacket with chrome plated fittings and an optional heavy-duty stainless steel spring. The base loaded matching network supports the collinear or trilinear rod sections above without the need of a ground plane.

Features

- No ground plane required
- Rugged construction; optional heavy-duty shock spring
- Sleek, sturdy, sealed phasing coil design
- Mates with all 1-1/8"-18 thread mounts, including 3/4" mounts

Antenna Electrical Specifications

Model	Frequency Range	Factory Tuned Frequency	Gain with/without Ground Plane
MUF3002NGP	300-350 MHz	Field tunable	2 dB/Unity
MUF4065NGP(S)*	406-430 MHz	Field tunable	5 dB/3 dB
MUF4062(S)*	406-430 MHz	Field tunable within specified frequency range	Unity (2.4 dB with Ground Plane)
MUF4305NGP(S)*	430-450 MHz	Field tunable	5 dB/3 dB
MUF4302(S)*	430-450 MHz	Field tunable within specified frequency range	Unity (2.4 dB with Ground Plane)
MUF4505NGP(S)*	450-470 MHz	Field tunable	5 dB/3 dB
MUF4502(S)*	450-470 MHz	Field tunable within specified frequency range	Unity (2.4 dB with Ground Plane)
MUF4705NGP(S)*	470-490 MHz	Field tunable	5 dB/3 dB
MUF4702(S)*	470-490 MHz	Field tunable within specified frequency range	Unity (2.4 dB with Ground Plane)
MUF4905NGP(S)*	490-512 MHz	Field tunable	5 dB/3 dB
MUF4902(S)*	490-512 MHz	Field tunable within specified frequency range	Unity (2.4 dB with Ground Plane)

For detailed specifications, visit <http://antenna.pctel.com>.

*Suffix "S" (Spring) is not a retrofit option, please indicate at time of order.

Mechanical Specifications

Model	Antenna Height at lowest frequency
MUF3002NGP	Approximately 20.5"
MUF4065NGP(S)*	Approximately 33"
MUF4062(S)*	Approximately 17"
MUF4305NGP(S)*	Approximately 33"
MUF4302(S)*	Approximately 17"
MUF4505NGP(S)*	Approximately 33"
MUF4502(S)*	Approximately 17"
MUF4705NGP(S)*	Approximately 33"
MUF4702(S)*	Approximately 17"
MUF4905NGP(S)*	Approximately 33"
MUF4902(S)*	Approximately 17"

*Suffix "S" (Spring) is not a retrofit option, please indicate at time of order.

800/900 MHz Base Loaded Chrome Coil Antennas, No Ground Plane

Designed for installations that lack a suitable ground plane, these antennas feature a tapered loading coil jacket with chrome plated fittings and an optional heavy-duty stainless steel spring. The base loaded matching network supports the collinear or trilinear rod sections above without the need of a ground plane.



MUF8150NGPS

Features

- No ground plane required
- Rugged construction; optional heavy-duty shock spring
- Sleek, sturdy, sealed phasing coil design
- Mates with all 1-1/8"-18 thread mounts, including 3/4" mounts

Antenna Electrical Specifications

Model	Frequency Range	Factory Tuned Frequency	Gain	Rod/Coil Type
MUF8150NGP(S)	806-866 MHz	815 MHz	Unity	Straight
MUF8103NGP(S)	806-866 MHz	815 MHz	3 dB	Collinear/Open
MUF8003NGP(S)	806-866 MHz	815 MHz	3 dB	Collinear/Closed
MUF8105NGP(S)	806-866 MHz	815 MHz	5 dB	Trilinear/Open
MUF8005NGP(S)	806-866 MHz	815 MHz	5 dB	Trilinear/Closed
MUF8350NGP(S)	824-896 MHz	835 MHz	Unity	Straight
MUF8303NGP(S)	824-896 MHz	835 MHz	3 dB	Collinear/Open
MUF8323NGP(S)	824-896 MHz	835 MHz	3 dB	Collinear/Closed
MUF8305NGP(S)	824-896 MHz	835 MHz	5 dB	Trilinear/Open
MUF8325NGP(S)	824-896 MHz	835 MHz	5 dB	Trilinear/Closed
MUF9000NGP(S)	896-940 MHz	898 MHz	Unity	Straight
MUF9103NGP(S)	896-940 MHz	898 MHz	3 dB	Collinear/Open
MUF9003NGP(S)	896-940 MHz	898 MHz	3 dB	Collinear/Closed
MUF9025NGP(S)	896-940 MHz	898 MHz	5 dB	Trilinear/Open
MUF9035NGP(S)	896-940 MHz	898 MHz	5 dB	Trilinear/Closed

MAXRAD

Technical Data

Maximum Power: 200 watts
Nominal Impedance: 50 ohms
VSWR: < 1.5:1
Radiator Material: .100" diameter stainless steel
Optional Spring: Stainless steel
Phasing Coil Housing: Molded polymer jacket with copper, nickel and chrome plated bushing
Base Housing Coil: Tapered jacket with copper, nickel and chrome plated bushing
Mount Method: Compatible with 3/4" hole mounts
Antenna Type: Base loaded 1/2 wave

For detailed specifications, visit <http://antenna.pctel.com>.

Mechanical Specifications

Model	Antenna Height at lowest frequency
800 MHz series @ Unity	Approximately 7.5"
800 MHz series @ 3 dB	Approximately 17.25"
800 MHz series @ 5 dB	Approximately 27.7"
900 MHz series @ Unity	Approximately 7.25"
900 MHz series @ 3 dB	Approximately 17.5"
900 MHz series @ 5 dB	Approximately 27.5"

*Suffix "S" indicates spring

VHF and UHF Wideband Antennas - No Tune

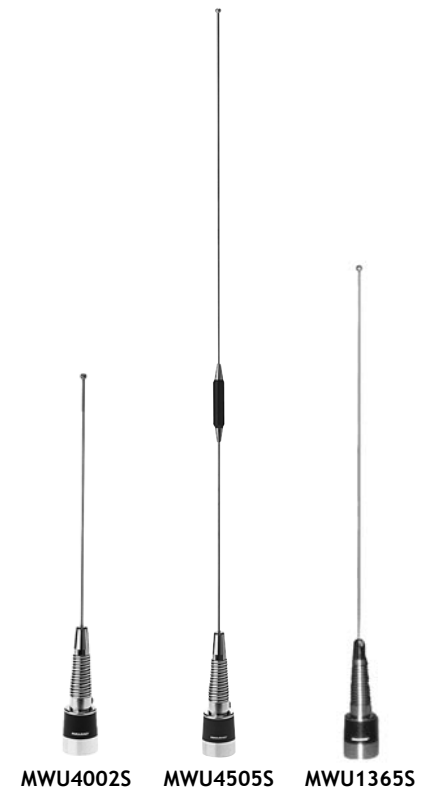
These antennas address equipment inter-operability challenges by providing superior bandwidth coverage without sacrificing antenna performance. Their no tune wideband design eliminates the need to install multiple antennas to cover various VHF or UHF frequency bands, thus reducing installation costs and complexity and improving overall coverage of the desired frequencies.

Features

- Rugged stainless steel spring and wideband tube assembly for maximum durability and shock absorption
- Thick-wall housing, double-sealed for maximum weatherproofing
- Mates with all 1-1/8" -18 thread mounts, including 3/4" mounts

Antenna Electrical Specifications

Model	Frequency Range	Bandwidth	Gain
(B)MWV1360S	136-174 MHz	38 MHz	Unity
(B)MWV1365S	136-174 MHz	38 MHz	Unity
(B)MWU3802(S)	380-460 MHz	80 MHz	2.0 dB/Unity
MWB4065	406-430 MHz	24 Mhz	5 dB
(B)MWU4065(S)	406-440 MHz	34 MHz	4.5 dB
(B)MWU4002S	406-512 MHz	106 MHz	2.0 dB/Unity
(B)MWU4205(S)	420-460 MHz	40 MHz	4.5 dB
(B)MWU4505(S)	440-480 MHz	40 MHz	4.5 dB
MWB4305	430-450 MHz	20 MHz	5 dB
MWB4505	450-470 MHz	20 MHz	5 dB
MWB4605	460-480 MHz	20 MHz	5 dB
MWB4705	470-490 MHz	20 MHz	5 dB
(B)MWU4705(S)	470-512 MHz	42 MHz	4.5 dB
MWB4905	490-512 MHz	22 MHz	5 dB



MAXRAD

Technical Data

Maximum Power: 200 watts (UHF) 160 watts (VHF) 50 watts (MWV1360S)
Nominal Impedance: 50 ohms
VSWR: < 2.0:1
Radiator Material: .100" diameter stainless steel
Spring: Stainless steel
Phasing Coil Housing: Molded polymer jacket with bright or black chrome plated bushing
Base Coil Housing: Molded polymer jacket with copper, nickel and chrome plated bushing
Loading Coil: Tapered jacket; bushing are brass with heavy chrome plating

For detailed specifications, visit <http://antenna.pctel.com>.

*Prefix "B" indicates black. Suffix "S" indicates spring.

Mechanical Specifications

Model	Antenna Height at lowest frequency
(B)MWV1360S	Approximately 21"
(B)MWV1365S	Approximatey 20"
(B)MWU3802(S)	Approximately 12"
MWB4065	Approximately 32"
(B)MWU4065(S)	Approximately 32"
(B)MWU4002S	Less than 12"
(B)MWU4205(S)	Approximately 32"
(B)MWU4505(S)	Approximately 32"
MWB4305	Approximately 32"
MWB4505	Approximately 32"
MWB4605	Approximately 32"
MWB4705	Approximately 32"
(B)MWU4705(S)	Approximately 21"
MWB4905	Approximately 32"

*Prefix "B" indicates black. Suffix "S" indicates spring.

VHF Wideband Antennas - Field Tune

These VHF field tune antennas address equipment inter-operability challenges by providing superior bandwidth coverage without sacrificing antenna performance. Featuring stainless steel heavy duty spring and molded polymer base, these antennas are built to withstand high vibration conditions.

Features

- The matching coil is wound around a low-loss coil form to withstand severe operating conditions
- Outstanding bandwidth performance
- Rugged compact design ideal for high vibration conditions
- Mates with all 1-1/8" -18 thread mounts, including 3/4" mounts

Antenna Electrical Specifications

Model	Frequency Range	Bandwidth	Gain
(B)MWV1322(S)	132-174 MHz	20 MHz	2.4 dB
MWV1322HD(S)	132-174 MHz	26 MHz	2.4 dB/Unity
MWB1320	132-512 MHz	24 MHz	Unity
MWB5803	150-174 MHz	18 MHz	3 dB

Mechanical Specifications

Model	Antenna Height at lowest frequency
(B)MWV1322(S)	Approximately 48"
MWV1322HD(S)	Approximately 48"
MWB1320	Approximately 22"
MWB5803	Approximately 49"



MAXRAD

Technical Data

Maximum Power: 150 watts
Nominal Impedance: 50 ohms
VSWR: < 2.0:1
Radiator Material: .100" - .062" diameter tapered stainless steel .125" - .100" diameter tapered stainless steel rod (heavy duty "HD" models only)
Optional Spring (if available with the antenna): Stainless steel
Base Coil Housing: Molded polymer jacket with copper, nickel and chrome plated bushing

For detailed specifications, visit <http://antenna.pctel.com>.

*Prefix "B" indicates black. Suffix "S" indicates spring. The spring option is not retrofittable, so please indicate at the time of order. Model MWU4002S is only available with a spring.

5/16" - 24 Thread Stud Mount Collinear Antennas

These antennas are the right choice for existing "L" style mounts using a 5/16"-24 stud mount. It has the same collinear design as that of the MUF4505 and is available in bright chrome or black finish.

Features

- Molded weather-proof, black matching coil
- Top stud and mounting threads are insert molded; will not leak water, pull out or rotate
- Coil is wound on a low-loss coil form to withstand the heaviest shocks
- Available in bright or black finish
- Ready to install; no rod cutting is required
- Mounts on any 5/16"-24 thread stud mount



MUFL4505

(B)MMCL450

MAXRAD

Technical Data

Maximum Power: 200 watts
Normal Impedance: 50 ohms
VSWR at Resonant Point: <1.5:1
Radiator Material: .100" diameter stainless steel; bright or black chrome finish
Rod Ferrule: 5/16"-24 thread; bright or black chrome plated brass
Optional Spring: Stainless steel; bright or black finish
Phasing Coil Housing: Molded polymer jacket with bright or black chrome plated brass bushing
Base Coil Housing: Molded polymer jacket with copper, nickel and chrome plated insert ring and stud (for MMCL models)

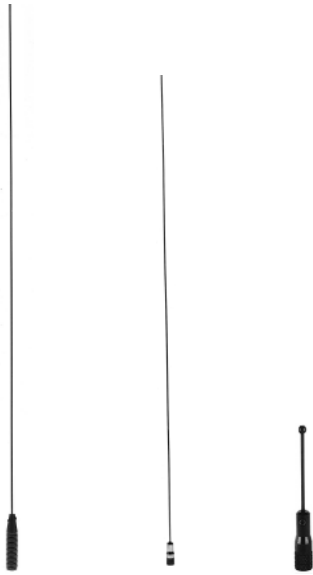
For detailed specifications, visit <http://antenna.pctel.com>.

Antenna Electrical Specifications

Model	Frequency Range	Factory Tuned Frequency	Gain	Rod/Coil Type
(B)MMCL406(S)	406-430 MHz	Antennas are field tunable within the specified frequency range.	5 dB	Closed coil
(B)MUFL4065(S)	406-430 MHz		5 dB	Closed coil
(B)MMCL430(S)	430-450 MHz		5 dB	Closed coil
(B)MUFL4305(S)	430-450 MHz		5 dB	Closed coil
(B)MMCL450(S)	450-470 MHz		5 dB	Closed coil
(B)MUFL4505(S)	450-470 MHz		5 dB	Closed coil
(B)MMCL470(S)	470-490 MHz		5 dB	Closed coil
(B)MUFL4705(S)	470-490 MHz		5 dB	Closed coil
(B)MMCL490(S)	490-512 MHz		5 dB	Closed coil
(B)MUFL4905(S)	490-512 MHz		5 dB	Closed coil

Mechanical Specifications

Model	Height
MUFL4000 series	Approximately 31" at lowest frequency
MMCL series	Approximately 41" at lowest frequency



(B)MHBLWBQ MHBL118 (B)MUFL800

MAXRAD

Technical Data

Maximum Power: 200 watts for models (B)MHBL54/88, (B)MHBLWBQ 150 watts for model (B)MHBL118 and MUFL800
Nominal Impedance: 50 ohms
VSWR at Resonant Point: <1.5:1 <2:1 ((B)MHBLWBQ only)
Radiator Material: MHBL54, (B)MHBLWBQ: .100" - .062" diameter stainless steel; bright or black finish MHBL88: .100" diameter stainless steel; bright or black finish MHBL118: .062" diameter stainless steel; bright or black finish
Rod Ferrule: 5/16" -24 thread; bright or black chrome plated brass
Optional Spring: Stainless steel; bright or black finish
Antenna Type: 1/4 wave

For detailed specifications,
visit <http://antenna.pctel.com>.

5/16" - 24 Thread Stud Mount 1/4 Wave Antennas

These antennas are ideal for vehicles with an existing 5/16"-24 thread stud mounts and are tunable over a broad range of frequencies.

These antennas are the answer when an extremely rugged, tunable, wideband Quarter Wave is required, or where there is an existing 5/16" -24 thread stud mount.

Features

- Available in bright or black finish
- All fittings are plated brass; either bright or black chrome
- Mates with all 5/16"-24 thread stud mounts
- 24 MHz of bandwidth in VHF and 100 MHz of bandwidth in UHF, with a built in stainless steel spring with chrome plated brass fittings
- Mates with all 5/16" -24 thread stud mounts

Antenna Electrical Specifications

Model	Frequency Range	Factory Tuned Frequency	Gain
(B)MHBL54(S)	54-88 MHz	Antennas are field tunable within the specified frequency range.	Unity
(B)MHBL88(S)	88-118 MHz		Unity
(B)MHBL118	118-940 MHz		Unity
(B)MHBLWBQ*	132-512 MHz		Unity
(B)MUFL8105(S)	806-866 MHz	815 MHz	5 dB
(B)MUFL8005(S)	806-866 MHz	815 MHz	5 dB
(B)MUFL800	806-896 MHz	835 MHz	Unity
(B)MUFL8053(S)	806-896 MHz	835 MHz	3 dB
(B)MUFL8033(S)	806-896 MHz	835 MHz	3 dB
(B)MUFL8305(S)	825-896 MHz	835 MHz	5 dB
(B)MUFL8325(S)	825-896 MHz	835 MHz	5 dB
(B)MUFL900	896-940 MHz	898 MHz	Unity
(B)MUFL9053(S)	896-940 MHz	898 MHz	3 dB
(B)MUFL9033(S)	896-940 MHz	898 MHz	3 dB
(B)MUFL9075(S)	896-940 MHz	898 MHz	5 dB
(B)MUFL9085(S)	896-940 MHz	898 MHz	5 dB

Prefix "B" indicates black. Suffix "S" indicates spring. *Spring included.

Mechanical Specifications

Model	Approximate Height at lowest frequency	Model	Approximate Height at lowest frequency
(B)MHBL54(S)	25"	(B)MUFL8325(S)	24"
(B)MHBL88(S)	25"	(B)MUFL8053(S)	3.5"
(B)MHBL118	25"	(B)MUFL8033(S)	3.5"
(B)MHBLWBQ*	21"	(B)MUFL9053(S)	12.5"
(B)MUFL8105(S)	24"	(B)MUFL9033(S)	12.5"
(B)MUFL8005(S)	24"	(B)MUFL9075(S)	23.5"
(B)MUFL8305(S)	24"	(B)MUFL9085(S)	23.5"

Chrome Nut Antennas

These antennas feature a super flexible design that protects the .062" diameter rod against damage that can be caused by limited vehicle height clearance. They also include a rubber seal gasket to prevent water leakage. All models are available in bright chrome or black finish.

Features

- Economical
- Flexible rod
- Ready to install; no rod cutting is required
- Available in either bright chrome or black finish
- Antenna includes rubber seal gasket to prevent water leakage
- Mates with all 1-1/8"-18 thread mounts, including 3/4" mounts

MAXRAD

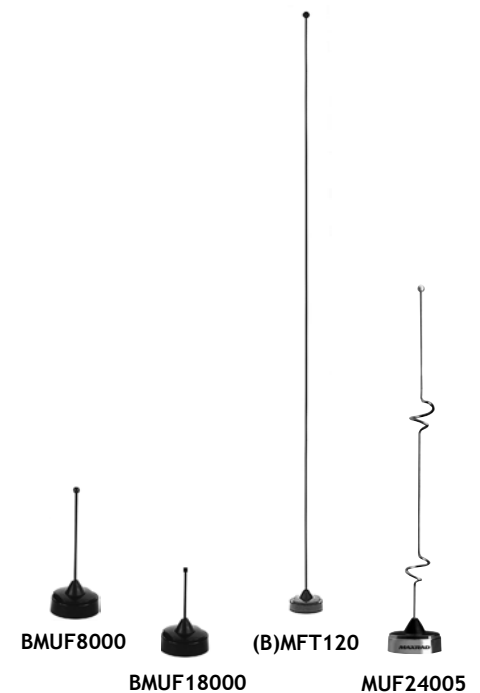
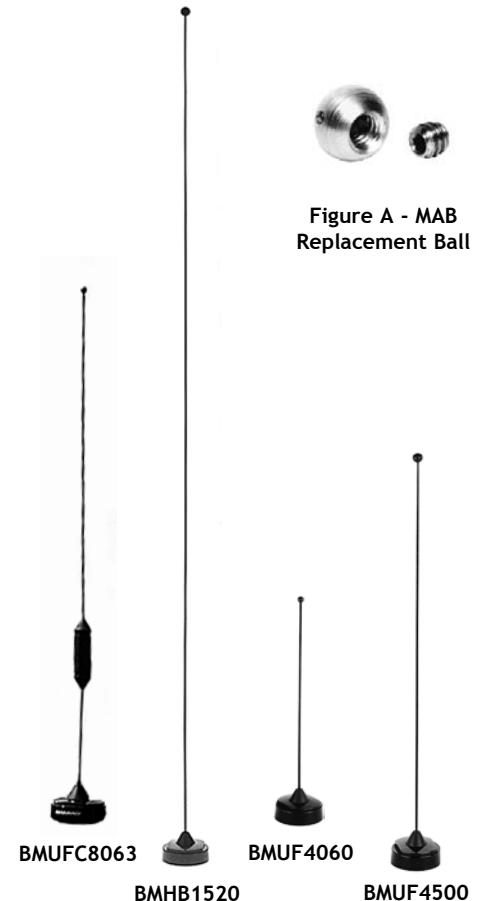
Technical Data

Maximum Power: 150 watts 100 watts (model BMFT800)
Nominal Impedance: 50 ohms
VSWR: < 1.5:1
Radiator Material: .062" diameter stainless steel, bright or black finish
Mount Nut: Brass; bright or black chrome finish
Antenna Type: 1/4 Wave (Unity gain models) 5/8 Wave over a 1/4 Wave (3 dB gain models) ISM mobile and WLAN (MUF24005)

For detailed specifications, visit <http://antenna.pctel.com>.



Figure A - MAB Replacement Ball



Antenna Electrical Specifications

Model	Frequency Range	Factory Tuned Frequency	Gain
(B)MFT120	118-940 MHz	Field Tunable	Unity
(B)MHB1360	136-144 MHz	140 MHz	Unity
(B)MHB1440	144-152 MHz	148 MHz	Unity
(B)MHB1520	152-162 MHz	157 MHz	Unity
(B)MHB1620	162-174 MHz	167 MHz	Unity
(B)MHB2200	220-225 MHz	222 MHz	Unity
(B)MUF3800	380-406 MHz	393 MHz	Unity
(B)MUF4060	406-430 MHz	418 MHz	Unity
(B)MUF4300	430-450 MHz	440 MHz	Unity
(B)MUF4500	450-470 MHz	460 MHz	Unity
(B)MUF4700	470-490 MHz	480 MHz	Unity
(B)MUF4900	490-512 MHz	501 MHz	Unity
(B)MUF7000	760-870 MHz	816 MHz	Unity
(B)MFT800	800-940 MHz	Field Tunable	Unity

Model	Frequency Range	Factory Tuned Frequency	Gain
BMUFC8063	806-866 MHz	815 MHz	3 dB
(B)MUF8063	806-866 MHz	815 MHz	3 dB
(B)MUF8000	806-896 MHz	835 MHz	Unity
BMUFC8253	824-896 MHz	835 MHz	3 dB
(B)MUF8253	825-896 MHz	835 MHz	3 dB
(B)MUF9093	870-950 MHz	898 MHz	3 dB
BMUFC8963	896-940 MHz	898 MHz	3 dB
(B)MUF9000	896-940 MHz	898 MHz	Unity
(B)MUF8963	896-940 MHz	898 MHz	3 dB
(B)MUF18000	1710-1880 MHz	1800 MHz	Unity
(B)MUF19000	1850-1990 MHz	1900 MHz	Unity
(B)MUF24005	2.4-2.48 GHz	2.45 GHz	5 dBi

Mechanical Specifications

Model	Antenna Height at lowest frequency
(B)MFT120	Approximately 24"
(B)MHB1360	Approximately 21.625"
(B)MHB1440	Approximately 21.625"
(B)MHB1520	Approximately 21.625"
(B)MHB1620	Approximately 21.625"
(B)MHB2200	Approximately 21.625"
(B)MUF3800	Approximately 7.375"
(B)MUF4060	Approximately 7.375"
(B)MUF4300	Approximately 7.375"
(B)MUF4500	Approximately 7.375"
(B)MUF4700	Approximately 7.375"
(B)MUF4900	Approximately 7.375"
(B)MUF7000	Approximately 3.3"
(B)MFT800	Approximately 4"

Model	Antenna Height at lowest frequency
(B)MUFC8063	Approximately 14.5"
(B)MUF8063	Approximately 14.5"
(B)MUF8000	Approximately 2.9"
(B)MUFC8253	Approximately 14.0"
(B)MUF8253	Approximately 14.0"
(B)MUF9093	Approximately 12-3/8"
(B)MUFC8963	Approximately 12.25"
(B)MUF9000	Approximately 2.9"
(B)MUF8963	Approximately 12.0"
(B)MUF18000	Approximately 1-5/8" @ 1.8 GHz
(B)MUF19000	Approximately 1.5" @ 1.9 GHz
(B)MUF24005	Approximately 8.75"

Miniature Magnetic Mount Antennas

Our BMMG antennas feature 12' RG-174 coaxial cable fully integrated into the antenna. They are compact, easy to install and are available with a variety of connector options.

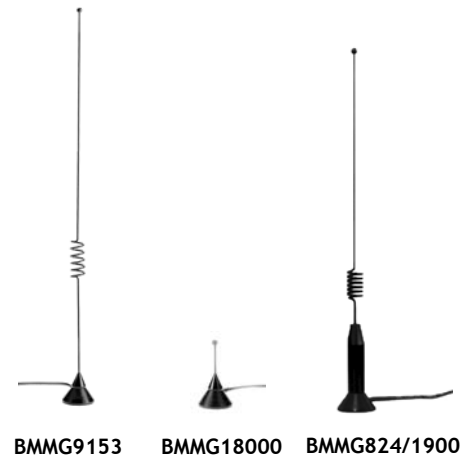
Features

- One piece construction for easy transport and installation
- Black coated whip assembly and machined polymer base provides minimum visibility
- No tuning required

Antenna Electrical Specifications

Model	Frequency Range	Gain
BMMG1510*	146-156 MHz	Unity
BMMG1550*	150-160 MHz	Unity
BMMG1660*	160-174 MHz	Unity
BMMG4060*	406-430 MHz	Unity
BMMG4500*	445-475 MHz	Unity
BMMG8153*	806-866 MHz	3 dB
BMMG8350*	824-896 MHz	Unity
BMMG8353*	824-896 MHz	3 dB
BMMG824/1900*	824-896/1850-1990 MHz	2 dBi/6 dBi
BMMG824/1900ML195*	824-896/1850-1990 MHz	2 dBi/6 dBi
BMMG824/1850	824-896 MHz/1850-1990 MHz	Unity, Cellular and PCS
BMMG824/1850U	824-896 MHz/1850-1990 MHz	Unity, Cellular and PCS
BMMG9150*	896-960 MHz	Unity
BMMG9153*	896-960 MHz	3 dB
BMMG18000C*	1710-1880 MHz	Unity
BMMG18000ML195*	1710-1880 MHz	Unity
BMMG19000*	1850-1990 MHz	Unity
BMMG19000ML195*	1850-1990 MHz	Unity
BMMG24000	2400-2484 MHz	Unity
BMMG24000ML195*	2400-2484 MHz	Unity
BMMG24005	2400-2484 MHz	5 dBi
BMMG24005ML195*	2400-2484 MHz	5 dBi

*Prefix "B" indicates black. Please specify connector option when ordering.
Add \$2.00 for N connector option.



MAXRAD

Technical Data

Maximum Power: 50 watts
Nominal Impedance: 50 ohms
VSWR: < 1.5:1
Radiator Material: .062" diameter stainless steel, black chrome finish
Base: Machined polymer
Bushing: Black chrome triple-plated brass
Antenna Base: Molded acrylonitrile butadiene styrene
Mounting Base: Black coated stainless steel
Magnet Mounting Force: 5 lbs minimum
Coax Cable: 12' ML100A (PCS and DCS only) 12' RG-174 (all other models)
Antenna Type: 1/4 wave Dual band collinear
Mount Method: Magnetic

For detailed specifications, visit <http://antenna.pctel.com>.

Mechanical Specifications

Model	Antenna Height	Rod/Coil Type	Cable
BMMG1510*	20"	Straight	12' RG-174
BMMG1550*	20"	Straight	12' RG-174
BMMG1660*	20"	Straight	12' RG-174
BMMG4060*	20"	Straight	12' RG-174
BMMG4500*	20"	Straight	12' RG-174
BMMG8153*	13.5"	Collinear/Open	12' RG-174
BMMG8350*	3.5"	Straight	12' RG-174
BMMG8353*	13.5"	Collinear/Open	12' RG-174
BMMG824/1900*	10.5"	Collinear/open	6' RG-174
BMMG824/1900ML195*	10.5"	Collinear/open	12' ML195
BMMG824/1850	4"	n/a	10' RG-174
BMMG824/1850U	4"	n/a	10' RG-174
BMMG9150*	3.25"	Straight	12' RG-174
BMMG9153*	6.5"	Collinear/open	12' RG-174
BMMG18000C*	1.58"	Straight	12' ML100A
BMMG18000ML195*	1.58"	Straight	12' ML195
BMMG19000*	1.50"	Straight	12' ML100A
BMMG19000ML195*	1.50"	Straight	12' ML195
BMMG24000	1.25"	Straight	6' ML100A
BMMG24000ML195*	1.25"	Straight	12' ML195
BMMG24005	9"	Trilinear/open	6' ML100A
BMMG24005ML195*	9"	Trilinear/open	12' ML195

Connector Options

C-NC - No connector

BN = BNC

C = Male TNC

C-NC = No connector;

FFME = Female FME

FMEJ = FME Jack

FPL = Female Mini UHF

FSMA - SMA Female

FSMART = Female SMA, Reverse Threaded

MMCXRA = MMCX Right Angle Plug

MSMA = SMA Male

MSMART = Male SMA, Reverse Threaded

NCP = Male N (w/ML195);

NF = N female (w/ML195);

PL = Male Mini-UHF;

RPBN = Rev Pol BNC;

RPC = Rev Pol TNC;

RPMSMA = Rev Pol Male SMA;

UN = Male N (w/ML100A);

*Prefix "B" indicates black. Please specify connector option when ordering. Add \$2.00 for N connector option.

Magnetic Mount Antennas

Our magnet mount antennas are ideal for temporary installations where quick antenna removal may be needed. All models provide coverage of their specific frequencies without the need for tuning. Wideband, dual-band and 3 dB gain models are available to satisfy various application requirements.

Features

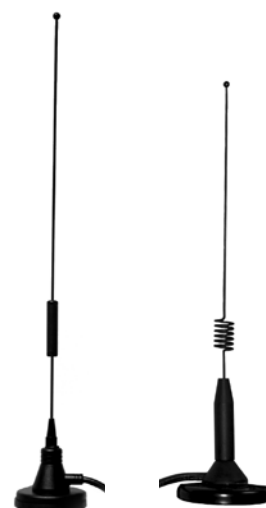
- Broadband: cover all specified frequencies without tuning
- Magnetic base for quick removal. Ideal for test equipment applications.
- Protective surface prevents scratches on the vehicle's surface
- Patented Whip Design - special phasing coil achieves in-phase signal transmission and reception using two collinear elements at both frequencies (ASPD and ASPRDM1994 models)
- Easily upgradable - for customers already owning an ASPDM1994 (unity/3 dB gain) antenna, a replacement whip KRDM1994Z is available for a quick upgrade to an ASPRDM1994 model
- Building Block - easily upgradable to 3 dB antenna by installing KD1894Z whip on base (Models ASP1890T and ASP1890S)



Technical Data

Maximum Power: 10 watts
Polarization: Vertical
Nominal Impedance: 50 ohms
VSWR: 2.0 across the band (ASPRDM models and MDBM800/1900) <1.9:1 (ASPA, ASPD, ASPG models) <1.5:1 across each band (ASP models and MDBM824/1850)
Radiator Material: Stainless steel, black chrome plated
Antenna Base: Molded high strength plastic
Mounting Base: Black coated stainless steel
Boot: Rubber
Mounting Force: 105.8 ounces minimum (MDBM800/1900) 300 ounces minimum (MDBM824/1850)
Cable: See Mechanical Specifications
Connector Options: Male SMA (MSMA), Male TNC (MTNC) Mini-UHF (PL), SMB (SMB), Female FME (FFME)
Mount Method: Magnetic

For detailed specifications, visit <http://antenna.pctel.com>.



MDBM800/1900 MDBM824/1850



ASP1853C



ASPD1894 Series



ASP1890 Series



ASPRDM1994
U.S. Patent No.
6,215,451 B1

Antenna Electrical Specifications

Model	Frequency Range	Gain
ASPA1894N	806-869 MHz	3 dB
ASPA1894M	806-869 MHz	3 dB
ASPA1894B	806-869 MHz	3 dB
ASPA1894T	806-869 MHz	3 dB
ASP1890T	806-960 MHz	Unity
ASP1890S	806-960 MHz	Unity
ASPD1894M	824-894 MHz	3 dB
ASPD1894T	824-894 MHz	3 dB
ASPD1894/CP	824-894 MHz	3 dB
ASPD1894S	824-894 MHz	3 dB
ASPD1894	824-894 MHz	3 dB

Model	Frequency Range	Gain
ASPG1894N	872-960 MHz	3 dB
ASPG1894T	872-960 MHz	3 dB
ASPM1853C*	1850-1990 MHz	3 dB
ASPRDM1994M	824-894/1850-1990 MHz	3 dB/3 dB
ASPRDM1994N	824-894/1850-1990 MHz	3 dB/3 dB
ASPRDM1994S	824-894/1850-1990 MHz	3 dB/3 dB
ASPRDM1994T	824-894/1850-1990 MHz	3 dB/3 dB
ASPRDM1994TM	824-894/1850-1990 MHz	3 dB/3 dB
ASPRDM1994U	824-894/1850-1990 MHz	3 dB/3 dB
ASPRDM1994PC	824-894/1850-1990 MHz	3 dB/3 dB
MDBM800/1900	824-896/1850-1990 MHz	2 dBi/2 dBi
MDBM824/1850	824-896/1850-1990 MHz	2 dBi/4 dBi

Mechanical Specifications

Model	Connector	Antenna Height	Coax Cable
ASPA1894N	N male	Approximately 14"	12 ft RG-58/U
ASPA1894M	Mini-UHF male	Approximately 14"	12 ft RG-58/U
ASPA1894B	BNC male	Approximately 14"	12 ft RG-58/U
ASPA1894T	TNC male	Approximately 14"	12 ft RG-58/U
ASP1890T	TNC Male	4.5"	12 ft RG-58/U
ASP1890S	SMA Male	4.5"	12 ft RG-58/U
ASPD1894M	Mini-UHF male attached	Approximately 15"	12 ft PRO-FLEX™ PLUS
ASPD1894T	TNC male attached	Approximately 15"	12 ft PRO-FLEX™ PLUS
ASPD1894/CP	Consumer package with adapter	Approximately 15"	12 ft PRO-FLEX™ PLUS
ASPD1894S	SMA male attached	Approximately 15"	12 ft PRO-FLEX™ PLUS
ASPD1894	No connector	Approximately 15"	12 ft PRO-FLEX™ PLUS
ASPG1894N	N male	Approximately 14"	12 ft RG-58/U
ASPG1894T	TNC male	Approximately 14"	12 ft RG-58/U
ASPM1853C*	TNC male	Approximately 7.625"	15 ft PRO-FLEX™ PLUS
ASPRDM1994M	Mini-UHF male	14.1"	15 ft PRO-FLEX™ PLUS
ASPRDM1994N	N male	14.1"	15 ft PRO-FLEX™ PLUS
ASPRDM1994S	SMA male	14.1"	15 ft PRO-FLEX™ PLUS
ASPRDM1994T	TNC male	14.1"	15 ft PRO-FLEX™ PLUS
ASPRDM1994TM	TNC male with Mini-UHF adapter	14.1"	15 ft PRO-FLEX™ PLUS
ASPRDM1994U	SAP	14.1"	15 ft PRO-FLEX™ PLUS
ASPRDM1994PC	SAP with Mini-UHF and TNC adapter	14.1"	15 ft PRO-FLEX™ PLUS
MDBM800/1900	See Connector Options	14.37"	13' RG-58/U
MDBM824/1850	See Connector Options	10.5"	14' RG-58/U

* Model ASPM1853C has a 25° Elevation Beamwidth.

Molded Base Antennas

These antennas feature a rugged molded polymer base, plated spring-loaded contact pin and .100" diameter stainless steel whip for long-lasting, trouble-free operation. Models are available with open or closed coil rod, and can be ordered in all black finish. This series offers models for many types of wireless applications, including mobile data, multi-band, single-band and public safety scanners.

Features

- Molded polymer base provides ruggedness and durability in harsh mobile environments.
- Wideband performance (WiFi models) provide coverage of 2.2 GHz to 2.9 GHz frequencies without tuning.
- 3 dB or 5 dB models available for most frequency ranges
- Available in bright chrome or black finish
- Antenna is ready to install; no rod cutting is required (unless otherwise noted)
- Mates with all 1-1/8"-18 thread mounts, including 3/4" mounts
- Available in bright chrome or our black finish
- Max Base designed with a spring-loaded brass contact pin

MAXRAD

Technical Data

Maximum Power: 200 watts(VHF models) 150 watts (UHF models) 100 watts (BMAX and MAXC models only)
Polarization: Vertical
Nominal Impedance: 50 ohms
VSWR: < 1.5:1 < 2.0:1 [(B)MAX150/450(S) and (B)MAX140/440(S)]
Radiator Material: .100" OD stainless steel; bright (MAXC) or black finish (BMAXC) .062" diameter black stainless steel
Optional Spring: Stainless steel; bright or black finish
Base Coil Housing: Molded polymer with a plated insert ring and a spring-loaded contact pin
Phasing Coil Housing: Molded polymer jacket with copper, nickel and chrome plated bushing
Rod Ferrule: 5/16" -24 thread; bright or black chrome plated finish
Antenna Type: See Mechanical Specifications
Mount Method: Mates with all 1-1/8"-18 thread mounts, including 3/4" mounts

For detailed specifications, visit <http://antenna.pctel.com>.



Antenna Electrical Specifications

Model	Frequency Range	Factory Tuned Frequency	Gain	Rod Type
(B)MAXMFT(S)**	118-940 MHz	Field Tunable	Unity	Straight
(B)MAX140D(S)	140-150 MHz	146 MHz	Unity	Collinear/Closed
(B)MAXHAM(S)	140-150 MHz/440-450 MHz/800-840 MHz	148 MHz/440 MHz/ n/a	Unity	Collinear/Open
(B)MAX140/440(S)	144-148 MHz/440-450 MHz	146/446 MHz	Unity	Collinear/Closed
(B)MAX150D(S)	150-174 MHz	160 MHz	Unity	Collinear/Open
(B)MAX150/450(S)	150-174 MHz/450-470 MHz	160/460 MHz	Unity	Collinear/Closed
(B)MAXSCAN1000(S)	150-174 MHz/450-470 MHz/800-840 MHz	160 MHz/460 MHz/ n/a	Unity	Collinear/Closed
(B)MAX405(S)	406-430 MHz	Field Tunable	5 dB	Collinear/Closed
(B)MAX425D(S)	425-445 MHz	435 MHz	Unity	Collinear/Open
(B)MAX435(S)	430-450 MHz	Field Tunable	5 dB	Collinear/Closed
(B)MAX440D(S)	440-450 MHz	446 MHz	Unity	Collinear/Open
(B)MAX450D(S)	450-470 MHz	460 MHz	Unity	Collinear/Closed
(B)MAX455(S)	450-470 MHz	Field Tunable	5 dB	Collinear/Closed
(B)MAX470D(S)	470-490 MHz	480 MHz	Unity	Collinear/Open
(B)MAX475(S)	470-490 MHz	Field Tunable	5 dB	Collinear/Closed
(B)MAX495(S)	490-512 MHz	Field Tunable	5 dB	Collinear/Closed
(B)MAX7603S	760-870 MHz	815 MHz	3 dB	Collinear/Open
(B)MAX7633S	760-870 MHz	815 MHz	3 dB	Collinear/Closed
(B)MAX8055(S)	806-866 MHz	815 MHz	5 dB	Trilinear/Closed
(B)MAX8135(S)	806-866 MHz	815 MHz	5 dB	Trilinear/Open
(B)MAX8033(S)	806-896 MHz	835 MHz	3 dB	Collinear/Closed
(B)MAX8053(S)	806-896 MHz	835 MHz	3 dB	Collinear/Open
BMAX8155S*	806-896 MHz	Operates within specified bandwidth	4.5 dB	Collinear/Closed
BMAX824/1850	824-896 MHz/1850-1990 MHz	Operates within specified bandwidth	2.2 dBi/4 dBi	Collinear/Open
(B)MAX8355(S)	825-896 MHz	835 MHz	5 dB	Trilinear/Open
(B)MAX8375(S)	825-896 MHz	835 MHz	5 dB	Trilinear/Closed
(B)MAX9103(S)	870-950 MHz	898 MHz	3 dB	Collinear/Closed
(B)MAX9105(S)	870-950 MHz	898 MHz	5 dB	Trilinear/Closed
BMAX9155S*	890-945 MHz	Operates within specified bandwidth	4.0 dB	Collinear/Closed
(B)MAX9033(S)	896-940 MHz	896 MHz	3 dB	Collinear/Closed
(B)MAX9053(S)	896-940 MHz	896 MHz	3 dB	Collinear/Open
(B)MAX9075(S)	896-940 MHz	896 MHz	5 dB	Trilinear/Open
(B)MAX9085(S)	896-940 MHz	896 MHz	5 dB	Trilinear/Closed
(B)MAXC24503	2.2-2.9 GHz	2.45 GHz	3 dBi	Collinear/Closed
(B)MAXC24505	2.2-2.9 GHz	2.45 GHz	5 dBi	Collinear/Closed

Prefix "B" indicates black. Suffix "S" indicates spring.

* This model is only available in black with a spring.

** This is a field tunable model.

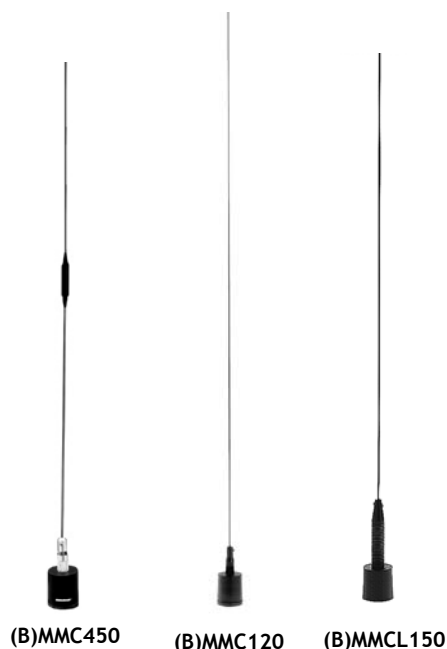
Mechanical Specifications

Model	Antenna Height at lowest frequency	Antenna Type
(B)MAXMFT(S)**	Approximately 26"	1/4 wave
(B)MAX140D(S)	Approximately 17"	1/4 wave/Collinear array
(B)MAXHAM(S)	Approximately 21"	1/4 wave or Collinear array
(B)MAX140/440(S)	Approximately 20"	1/4 wave/Collinear array
(B)MAX150D(S)	Approximately 17"	1/4 wave
(B)MAX150/450(S)	Approximately 20"	1/4 wave/Collinear array
(B)MAXSCAN1000(S)	Approximately 21"	1/4 wave or Collinear array
(B)MAX405(S)	Approximately 33"	5/8 wave over a 1/2 wave
(B)MAX425D(S)	Approximately 17"	1/4 wave
(B)MAX435(S)	Approximately 33"	5/8 wave over a 1/2 wave
(B)MAX440D(S)	Approximately 17"	1/4 wave
(B)MAX450D(S)	Approximately 17"	1/4 wave
(B)MAX455(S)	Approximately 33"	5/8 wave over a 1/2 wave
(B)MAX470D(S)	Approximately 17"	1/4 wave
(B)MAX475(S)	Approximately 33"	5/8 wave over a 1/2 wave
(B)MAX495(S)	Approximately 33"	5/8 wave over a 1/2 wave
(B)MAX7603S	Approximately 14"	Wideband collinear
(B)MAX7633S	Approximately 14"	Wideband collinear
(B)MAX8055(S)	Approximately 24"	Dual 1/2 wave over a 1/4 wave
(B)MAX8135(S)	Approximately 24"	Dual 1/2 wave over a 1/4 wave
(B)MAX8033(S)	Approximately 13"	5/8 wave over a 1/4 wave
(B)MAX8053(S)	Approximately 13"	5/8 wave over a 1/4 wave
BMAX8155S*	Approximately 13"	Collinear array
BMAX824/1850	Approximately 12"	Dual Band Collinear
(B)MAX8355(S)	Approximately 24"	Dual 1/2 wave over a 1/4 wave
(B)MAX8375(S)	Approximately 13"	5/8 wave over a 1/4 wave
(B)MAX9103(S)	Approximately 11"	5/8 wave over a 1/4 wave
(B)MAX9105(S)	Approximately 23"	Dual 1/2 wave over a 1/4 wave
BMAX9155S*	Approximately 13"	Collinear array
(B)MAX9033(S)	Approximately 11"	5/8 wave over a 1/4 wave
(B)MAX9053(S)	Approximately 11"	5/8 wave over a 1/4 wave
(B)MAX9075(S)	Approximately 23"	Dual 1/2 wave over a 1/4 wave
(B)MAX9085(S)	Approximately 23"	Dual 1/2 wave over a 1/4 wave
(B)MAXC24503	5.25" (133.35 mm)	ISM mobile and WLAN
(B)MAXC24505	7.50" (190.50 mm)	ISM mobile and WLAN

Prefix "B" indicates black. Suffix "S" indicates spring.

* This model is only available in black with a spring.

** This is a field tunable model.



5/8 Wave Molded Coil Antennas

Economical yet durable, the (B)MMC antennas feature insert molded top stud and bottom mounting threads that will not leak water, pull-out or rotate. Additionally, they can be ordered with a black shock spring for a complete black finish.

Features

- Molded weather-proof matching coil in an attractive black base
- Coil is wound on a low-loss coil form to withstand the heaviest shocks
- Optional 55" whip extends the frequency range down to 118 MHz
- Mates with all 1-1/8" -18 thread mounts, including 3/4" mounts

Antenna Electrical Specifications

Model	Frequency Range	Factory Tuned Frequency	Gain
(B)MMC120*	118-132 MHz	Field Tunable	3 dB
(B)MMC150132(S)	132-174 MHz	Field Tunable	3 dB
(B)MMCL150132(S)	132-174 MHz	Field Tunable	3 dB
(B)MMC150(S)	144-174 MHz	Field Tunable	3 dB
(B)MMCL150(S)	144-174 MHz	Field Tunable	3 dB
(B)MMC200(S)	200-250 MHz	Field Tunable	3 dB
(B)MMCL200(S)	200-250 MHz	Field Tunable	3 dB
(B)MMC330(S)	330-350 MHz	Field Tunable	5 dB
(B)MMC350(S)	350-390 MHz	Field Tunable	5 dB
(B)MMC380(S)	380-400 MHz	Field Tunable	5 dB
(B)MMC406(S)	406-430 MHz	Field Tunable	5 dB
(B)MMC430(S)	430-450 MHz	Field Tunable	5 dB
(B)MMC450(S)	450-470 MHz	Field Tunable	5 dB
(B)MMC470(S)	470-490 MHz	Field Tunable	5 dB
(B)MMC490(S)	490-512 MHz	Field Tunable	5 dB

Mechanical Specifications

Model	Antenna Height at lowest frequency
(B) MMC120*	Approximately 59"
(B)MMC150132(S)	Approximately 59"
(B)MMCL150132(S)	Approximately 57"
(B)MMC150(S)	Approximately 59"
(B)MMCL150(S)	Approximately 57"
(B)MMC200(S)	Approximately 59"
(B)MMCL200(S)	Approximately 57"
(B)MMC300-400 series	Approximately 40"

*Prefix "B" indicates black. Suffix "S" indicates spring. *Model (B)MMC120 includes a spring

Technical Data

Maximum Power: 200 watts
Nominal Impedance: 50 ohms
VSWR: < 1.5:1
Radiator Material: .100"-.062" diameter tapered stainless steel; bright or black finish
Optional Spring: Stainless steel; bright or black finish
Rod Ferrule: 5/16"-24 thread; bright or black chrome plated brass
Base Coil Housing: Molded polymer jacket with copper, nickel and chrome plated insert ring and stud
Phasing Coil Housing: Molded polymer jacket with bright or black chrome plated brass bushing
Antenna Type: Base loaded 5/8 Wave 5/8 wave over a 5/8 wave (Collinear Model)

For detailed specifications, visit <http://antenna.pctel.com>.

3 dB Vehicular Antenna, Male-Female Contact Interface

These **Antenna Specialists®** feature a male-female contact mount interface that provides positive connection for noise-free cellular or PCS phone operation.

Features

- Noise-free – male-female contact mount interface provides positive connection for noise-free cellular or PCS telephone operation, especially for digital applications
- Rugged one piece construction, including phasing coil
- Patented Whip Design – special phasing coil achieves 3 dB operation at both cellular and PCS frequency bands (dual band model)
- Convenient - whip can be easily removed from base when needed

MAXRAD

Technical Data

Maximum Power: See Electrical Specifications
Nominal Impedance: 50 ohms
VSWR: See Electrical Specifications
Radiator Material: Stainless steel DURA-CON™ plated or black DURA-COAT™ finish (select models)
Base: Aluminum, brass and plated steel
Whip Length: See Mechanical Specifications
Mount Method: Compatible with A/S® male-female contact mounts (sold separately)

For detailed specifications, visit <http://antenna.pctel.com>.



ASPD1965
U.S. Patent No.
6,215,451 B1



ASPA1855



ASPG1865



ASPD1865



ASP1815

Antenna Electrical Specifications

Model	Frequency Range	Bandwidth	Gain	VSWR	Maximum Power
ASPA1855	806-869 MHz	63 MHz	3 dB	< 1.5:1	100 watts
ASPA1865	806-869 MHz	63 MHz	3 dB	< 1.5:1	100 watts
ASP1815	806-960 MHz	154 MHz	Unity	< 1.5:1	100 watts
ASPD1865	824-894 MHz	70 MHz	3 dB	< 1.9:1	10 watts
ASPDM1965	824-894/1850-1990 MHz	70 MHz/140 MHz	3 dB/3 dB	< 2.0:1	10 watts
ASPG1865	890-960 MHz	70 MHz	3 dB	< 1.5:1	100 watts

Mechanical Specifications

Model	Finish	Mount	Whip Length
ASPA1855	DURA-CON™ plated	Male-female contact 3/4" hole mounts (sold separately)	Approximately 14"
ASPA1865	DURA-COAT™ black	Male-female contact 3/4" hole mounts (sold separately)	Approximately 14"
ASP1815	Teflon™	Male-female contact mounts	Approximately 4" No cutting or tuning needed
ASPD1865	DURA-COAT™ black	Compatible with male-female contact mounts (sold separately)	Approximately 14.7"
ASPDM1965	DURA-COAT™ black	Compatible with male-female contact mounts (sold separately)	Approximately 14"
ASPG1865	DURA-COAT™ black	Male-female contact 3/4" hole mounts (sold separately)	Approximately 14"

*Prefix "B" indicates black.

Mosaic® Vibration Resistant Collinear Antennas

The **Antenna Specialist®** Mosaic® high performance collinear antennas provide exceptional coverage of UHF frequencies with 5 dB or 3 dB gain performance. They feature a black UV stabilized ABS base that resists chalking and provides long lasting operation. Patented DURA-FLEX® elastomer spring eliminates duplex system noise caused by semi-conductive deposits found in traditional coil springs. A springless models are also available.

Features

- Enhanced Performance - all brass inserts eliminate interference caused by dissimilar metals
- Long Life - black UV stabilized ABS base resists chalking and provides long lasting operation
- Noise-Free - unique patented DURA-FLEX® elastomer spring eliminates duplex system noise caused by semi-conductive deposits found in traditional metal coil springs
- System Oriented - compatible with 1-1/8" -18 thread mobile mounts, including 3/4" hole mounts for easy antenna replacement or upgrade

Antenna Electrical Specifications

Model	Frequency Range	Gain
ASPA7655	406-420 MHz	5 dB
ASPE7655	420-430 MHz	5 dB
ASP76551	445-470 MHz	5 dB
APS7655LS1**	445-470 MHz	5 dB
ASP7795	445-470 MHz	3 dB
ASP7795LS**	445-470 MHz	3 dB
ASPB76552	470-494 MHz	5 dB
ASPC76553	494-512 MHz	5 dB

Mechanical Specifications

Model	Antenna Height
ASPA7655	Approximately 34"
ASPE7655	Approximately 34"
ASP76551	Approximately 34"
APS7655LS1**	Approximately 35"
ASP7795	Approximately 15"
ASP7795LS**	Approximately 16"
ASPB76552	Approximately 33"
ASPC76553	Approximately 33"

** This model does not include a spring



ASP76551

ASP7795

ASP7795LS

U.S. Patent No. 4,625,213

MAXRAD

Technical Data

Maximum Power: 150 watts
Nominal Impedance: 50 ohms
VSWR: < 1.5:1 with a DURA-FLEX® spring < 1.7:1 (ASPD76552 and ASPC76553) < 2.0:1 with springless adapter
Radiator Material: 0.12" diameter, 17-7PH stainless steel (5 dB models) 0.100" diameter, 17-7PH stainless steel (3 dB models)
Spring Material: DURA-FLEX® elastomer (if included)
Base Coil: 14 AWG copper clad steel wire, waterproof housing
Phasing Coil: 14 AWG copper wire, encapsulated with radiators 16 AWG silver, plated brass (ASPD76552 and ASPC76553)
Base and Fittings: All brass
Mount Method: Compatible with 1-1/8" -18 thread mobile mounts, including 3/4" hole mounts

For detailed specifications, visit <http://antenna.pctel.com>.



Antenna Specialists® Quarter Wave Antennas

The **Antenna Specialist®** multi-band antenna is designed to match wide frequency-ranging synthesized radio equipment. It features a heavy duty stainless steel spring and black textured co-polyester base that provides maximum durability and long-lasting performance in rugged operating environments. This antenna is compatible with Antenna Specialists® 3/4 inch hole mounts. It is field tunable within the range of specified VHF and UHF frequencies.

Features

- Broadband - designed to match wide frequency-ranging synthesized radio equipment
- Four models available with varying features to address various application requirements
- Removable whip for fine tuning or replacement

Antenna Electrical Specifications

Model	Frequency Range	Bandwidth	Gain
ASPR7495	150-512 MHz, field tunable	100 MHz (406-512 MHz)	Unity
ASPR795	108-512 MHz, field tunable	100 MHz (406-512 MHz)	Unity
ASPC201	108-512 MHz, field tunable	100 MHz (406-512 MHz)	Unity
ASPC201L*	108-512 MHz, field tunable	100 MHz (406-512 MHz)	Unity

Mechanical Specifications

Model	Whip Length at lowest frequency
ASPR7495	16-3/8"
ASPR795	26"
ASPC201	26"
ASPC201L*	26"

Mounting Method

Model	Mounting Method
ASPR7495	1-1/8" -18 thread mobile mounts, including 3/4" hole mounts
ASPR795	1-1/8" -18 thread mobile mounts, including 3/4" hole mounts
ASPC201	3/8" hole snap-in mounts
ASPC201L*	3/8" hole snap-in mounts

Technical Data

Maximum Power: 150 watts 100 watts (ASPC models)
Nominal Impedance: 50 ohms
VSWR: < 1.5:1 (ASPR795 and ASPC models) < 2.0:1
Radiator Material: 0.125" diameter, 17-7PH stainless steel 0.072" diameter, 17-7PH stainless steel (ASPC models) 0.046" diameter, stainless steel (ASPR795)
Spring Material (if available with antenna): Stainless steel
Base Material: Teflon™
Base and Fittings: Aluminum, plated steel and brass (ASPR795)

For detailed specifications, visit <http://antenna.pctel.com>.

* This model includes 17 ft RG-58/U cable and UHF male connector

Antenna Specialists® 3 dB Gain, VHF Collinear Antennas

These Mosaic® antennas provide 3 dB gain performance for mobile applications operating in VHF frequencies. The antennas are designed to be used with our **Antenna Specialists®** low profile or Motorola style mount. It features a black UV stabilized ABS base that resists chalking and provides long lasting operation. Its patented DURA-FLEX® elastomer spring eliminates duplex system noise caused by semi-conductive deposits found in traditional coil springs.

Features

- Enhanced Performance - all brass inserts eliminate interference caused by dissimilar metals
- Long Life - black UV stabilized ABS base resists chalking and provides long lasting operation
- Noise-Free - unique patented DURA-FLEX® elastomer spring eliminates duplex system noise caused by semi-conductive deposits found in traditional metal coil springs
- System Oriented - NMO-style mount compatibility facilitates antenna replacement or upgrade
- Performance Plus - 3 dB gain provides system improvement at low cost
- High Quality - shock resistant, weather-proof, shunt-fed transformer handles over 100 watts of power with ease

Antenna Electrical Specifications

Model	Frequency Range	Gain
ASPS177	130-174 MHz	3 dB
ASP553	130-174 MHz	3 dB
ASP7455	138-174 MHz	3 dB
ASPH7455	210-230 MHz	3 dB

Mechanical Specifications

Model	Antenna Height
ASPS177	49"
ASP553	51.5"
ASP7455	54" max. including spring and coil
ASPH7455	27"

Mounting Options

Model	Options
ASPS177	3/4" hole toggle mount
ASP553	Special K-27 adapter for A/S® low profile mounts
ASP7455	Compatible with NMO-style mounts (sold separately)
ASPH7455	A/S® low profile or NMO-style mounts



ASP7455LS
U.S. Patent
No.4,625,213

ASPH7455
U.S. Patent
No. 4,625,213

MAXRAD

Technical Data

Maximum Power: 150 Watts
Polarization: Vertical
Nominal Impedance: 50 ohms
VSWR: < 1.5:1 with a DURA-FLEX® spring
Radiator Material: 0.100" diameter, 17-7PH stainless steel
Spring Material: DURA-FLEX® elastomer (ASP7455) Stainless steel (ASP553 and ASPS177)
Transformer: 14 AWG copper clad steel wire, low loss coil, waterproof housing (ASPH7455) DC grounded, shunt-fed, weather-proof with plastic jacket, 1" OD x 3.25" L shock resistant (ASP553 and ASPS177)
Phasing Coil: 14 AWG copper wire, encapsulated with radiators
Base and Fittings: All brass (ASPH7455) Plated brass and steel (ASP553 and ASPS177)
Coax Cable: 17 ft RG-58 Sold separately with mount
Mounting Method: See Mounting Options (sold separately)

For detailed specifications, visit <http://antenna.pctel.com>.



ASP358

Antenna Specialists® 3 dB Gain, No Ground Plane VHF Coaxial Mobile Antenna

The ASP358 is a 3 dB gain antenna designed to mount directly to a swivel ball or bumper mounts with 3/8"-24 threads. Its rugged, stainless steel mast can withstand severe environmental conditions and heavy use without affecting the antenna's performance. It features stainless steel and chrome plated brass construction for long-lasting use.

Features

- Versatile - mounts directly to swivel ball or bumper mounts with 3/8"-24 threads
- Rugged - stainless steel mast withstands severe environmental conditions for long lasting operation in mobile or fixed station applications
- High Quality - stainless steel and chrome plated brass construction provides years of maintenance-free service

MAXRAD

Antenna Electrical Specifications

Model	Frequency Range	Gain
ASP358	130-174 MHz	3 dB

Technical Data

Maximum Power: 150 watts
Normal Impedance: 50 ohms
VSWR: < 1.5:1
Radiator Material: 17-7PH stainless steel
Coax Cable: 20 ft RG-58/U
Whip Length: 49 inches (overall length approximately 7 ft depending on frequency)
Spring Material: Stainless steel
Transformer: Shunt-fed, DC grounded, plastic jacket, weather-proof, shock resistant
Connector: PL-259
Cable: 20 ft RG-58/U

For detailed specifications,
visit <http://antenna.pctel.com>.

Dual Band VHF/UHF Collinear Antennas

These antennas offer VHF and UHF dual band coverage with 2 dB gain at (VHF), and 5 dB gain at (UHF) frequencies. The antennas feature a tapped coil design to maximize bandwidth. A shock spring is available for heavy duty applications.

Features

- VHF/UHF dual band coverage
- 2 dB Gain at VHF frequencies; 5 dB gain at UHF frequencies
- Models for business or amateur bands
- Mates with all 1-1/8"-18 thread mounts, including 3/4" mounts

Antenna Electrical Specifications

Model	Frequency Range	Factory Tuned Frequency	Gain
MDB1444(S)*	144-148 MHz and 440-448 MHz	146/446 MHz	VHF 2 dB, UHF 5 dB
MDB1545(S)*	152-158 MHz and 453-468 MHz	155/461 MHz	VHF 2 dB, UHF 5 dB

Mechanical Specifications

Model	Antenna Height at lowest frequency
MDB1444(S)*	Approximately 38"
MDB1545(S)*	Approximately 38"



MDB1444S

MAXRAD

Technical Data

Maximum Power: 200 watts
Nominal Impedance: 50 ohms
VSWR: < 1.5:1 (UHF models) < 2:1 (VHF models)
Radiator Material: .100" diameter stainless steel
Optional Spring: Stainless steel
Phasing Coil Housing: Molded polymer jacket with bright or black chrome plated bushing
Loading Coil: Tinned copper wire wound on a low-loss coil form
Base Coil Housing: Molded polymer jacket with copper, nickel and chrome plated bushing
Antenna Type: VHF: 1/2 wave UHF: 5/8 wave over a 1/2 wave

For detailed specifications, visit <http://antenna.pctel.com>.

* Suffix "S" indicates spring, which is not a retrofit option. Please indicate at time of order.



MONR33

MAXRAD

Base Mount Monitor Antenna

The **Antenna Specialist®** multiple band UHF-VHF monitor antenna permits scanning of lowband, VHF and UHF frequencies. It features a black, UV stable ABS base that resists chalking and provides long lasting field operation. This antenna is designed to support law enforcement, public safety and emergency applications.

Features

- Updated Design - components from Mosaic® series for added quality and durability
- Long Lasting - black UV stable ABS base resists chalking and provides long lasting field operation
- Multi-band - supports lowband, VHF and UHF frequencies

Antenna Electrical Specifications

Model	Frequency Range
MONR33	25-50 MHz, 130-174 MHz, 540-512 MHz

Technical Data

Maximum Power: 150 watts (all models, except UHF) 100 watts (UHF models)
Polarization: Vertical
Nominal Impedance: 50 ohms
VSWR: 3.0:1 typical
Radiator Material: 17-17 stainless steel
Coax Cable: 17 ft RG-58 (sold separately with mount)
Whip Length: 50 inches
Mounting Method: 3/8" hole roof or deck base (mounts sold separately)

For detailed specifications,
visit <http://antenna.pctel.com>.

Quarter Wave Antennas

The MLB antennas are a popular choice for State Patrol, Land Management and serious CB applications. They provide superior performance for a variety of lowband applications.

Features

- The matching coil is supported by a low-loss coil form to withstand the heaviest shocks (all models, except MLB6600S)
- The tapered coil housing enhances appearance and prevents moisture from entering the load (all models, except MLB6600S)
- Mates with all 1-1/8"-18 thread mounts, including 3/4" mounts

Antenna Electrical Specifications

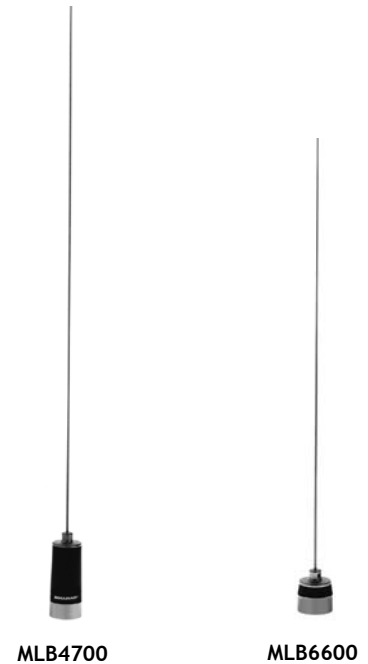
Model	Frequency Range	Factory Tuned Frequency	Gain
MLB2700(S)	27-31 MHz	Field Tunable within specified range	Unity
MLBDC2700(S)**	27-31 MHz	Field Tunable within specified range	Unity
MLB3000(S)	30-35 MHz	Field Tunable within specified range	Unity
MLBDC3000(S)**	30-35 MHz	Field Tunable within specified range	Unity
MLBDC3400(S)**	34-37 MHz	Field Tunable within specified range	Unity
MLB3400(S)	34-40 MHz	Field Tunable within specified range	Unity
MLBDC3700(S)**	37-40 MHz	Field Tunable within specified range	Unity
MLB4000(S)	40-47 MHz	Field Tunable within specified range	Unity
MLBDC4000(S)**	40-47 MHz	Field Tunable within specified range	Unity
MLBDC4500(S)**	45-48 MHz	Field Tunable within specified range	Unity
MLBDC4700(S)**	47-50 MHz	Field Tunable within specified range	Unity
MLB4700(S)	47-54 MHz	Field Tunable within specified range	Unity
MLBDC5000(S)**	50-54 MHz	Field Tunable within specified range	Unity
MLB6600(S)	66-132 MHz	Field Tunable within specified range	Unity

Mechanical Specifications

Model	Antenna Height at lowest frequency
All models	Approximately 52"

*Suffix "S" indicates spring

** This model is DC grounded



MAXRAD

Technical Data

Maximum Power: 200 watts 500 watts (MLBDC models)
Nominal Impedance: 50 ohms
VSWR: < 1.5:1
Radiator Material: .100" - .062" diameter tapered stainless steel
Optional Spring: Stainless steel
Loading Coil: Tinned copper wire wound on a low-loss coil form (All models, except MLB6600S)
Base Coil Housing: Molded polymer with copper, nickel and chrome plated bushing
Lightening Protection: DC grounded (MLBDC models only)
Antenna Type: Base loaded tapped 1/4 wave (MLBDC models) Full length 1/4 wave (MLB6600S) Base loaded 1/4 wave (MLB models)

For detailed specifications, visit <http://antenna.pctel.com>.



MLB3001

MAXRAD

Lowband Full Length Quarter Wave Antenna

This is a rugged full length Quarter Wave for lowband applications. It features a high quality stainless steel shock spring.

Features

- The ultimate in durability for lowband applications
- Stainless steel construction
- 96" tapered stainless steel whip
- Adjustable, die cast zinc mount

Antenna Electrical Specifications

Model	Frequency Range	Factory Tuned Frequency	Gain
(B)MLB3001	30-54 MHz	Field Tunable	Unity

Technical Data

Maximum Power: 250 watts
Nominal Impedance: 50 ohms
VSWR: < 1.5:1
Radiator Material: .200" - .100" diameter tapered stainless steel
Spring: Stainless steel
Cable Options: MK10 10' cable MK20 20' cable Both options are complete with spade lugs installed, and loose solder on PL259 connector.
Mounting Base: 3-1/2" diameter
Antenna Type: Full length 1/4 wave

Mechanical Specifications

Model	Antenna Height at lowest frequency
(B)MLB3001	Approximately 105"

For detailed specifications, visit <http://antenna.pctel.com>.

*Prefix "B" indicates black. Spring assembly included

GPS+ Combination Antennas

The Max-Matics™ GPS+ antennas have been designed to provide maximum performance and versatility for telematics applications, including fleet monitoring and asset tracking.

By combining the high performance of a MAXRAD GPS antenna with the flexibility to add virtually any MAXRAD permanent mount compatible mobile antenna, The GPS+ provides reliable, real-time wireless voice and data coverage for fleet monitoring applications. This antenna is designed to facilitate installation. It includes all necessary hardware for “blind” installations when removal of the vehicle’s headliner is not desired.

Its precise performance and ease of installation provides outstanding value and flexibility for the most demanding wireless mobile applications.

Features

- Combination GPS/mobile antenna design provides GPS tracking coverage and voice/data wireless coverage capabilities for fleet monitoring or fleet tracking applications.
- UV-stable housing features attractive Industrial design that is available in off-white or black textured finishes.
- 3 or 5 Vdc operating voltage supply enables operation with most GPS systems on the market.
- Several models are available, including trunk lid mount, permanent stud mount, mirror mount or magnet mount versions. The variety of mounts provides flexibility and versatility to end users.
- Various connector options are available for both the GPS antenna and the mobile antenna’s permanent mount.
- High frequency mobile antenna mount provides a VSWR of less than 1.5:1 at frequencies from 27 MHz to 2.4 GHz for all MAXRAD mobile antennas used as part of the GPS+ antenna series.

Technical Data

Polarization: Right hand circular
Input Impedance: 50 ohms
VSWR: 1.5:1, typical @1575.42 MHz
Azimuth Coverage: 360°
Elevation Coverage: 0° -90°
Axial Ratio: 3.0 dB, maximum
Noise Figure: 2.2 dB, maximum (1.5 dB, typical)
Operating Supply Voltage: 3-5 Vdc; 50 mV p-p ripple (maximum)
Current Consumption: 20 mA, maximum @ 5 Vdc, 12 MA typical
Housing Material: Black or off-white, UV-stable polycarbonate
Housing Dimensions: 2.25" W x 4.25" L x 1.25" H
Mobile Antenna Mount interface: 1-1/8"-18 thread mount
Cable: 17' RG-174 (GPS antenna side) 17' RG-58/U (mobile antenna side)
Cable Pull Force: 5 kgf, minimum (magnetic mount models)
Connector Options (GPS antenna): See table on next page for options
Mounting Options: Trunk lid, stud, mirror or magnet



The Max-Matics™ GPS+ antennas are available with various mount configurations, including mirror (above left), permanent/blind installation stud (above middle) and trunk lid mount (above right). A mirror mount version (not pictured) is also available.

MAXRAD

For detailed specifications, visit <http://antenna.pctel.com>.

Antenna Electrical Specifications

Operating Frequency	Gain - Antenna Element	Nominal Gain	Out-of-Band Rejection	
L1: 1575.42 +/- 1.023 MHz	+2 dBic, minimum at zenith	24 dB at connector	fo=1575.42 MHz	8 dBc, minimum
	-10 dBic, minimum at 0° elevation		fo +/- 30 MHz	16 dBc, minimum
			fo +50 MHz	22 dBc, minimum
			fo - 50 MHz	27 dBc, minimum
			fo +100 MHz	42 dB, minimum
			fo -100 MHz	

Environmental Specifications

Burn-out Protection	Operating Temperature Range	Storage Temperature Range
Protected from damage by RF signals when the power received by the antenna is no greater than +17 dBm, maximum	-40° C to +85° C	-40° C to +100° C

To order, please follow the following part number configuration:

Color	Mount type	GPS Connector	Mobile Antenna Connector
Black textured finish is standard and no color code is required for this choice. For a white textured finish, begin the part number with "W"	Add the appropriate suffix (choose from the list below) to indicate your choice of mount:	Choose among: Male SMA (MSMA) Female SMA (FSMA) Male TNC (MC) Male BNC (BN) Female FME (FFME) Right angle SMB jack (RASBJ) Right angle SMB plug (RASBP) MCX MMCX Right angle MMCX plug (RAMMCX)	Choose among any of the connector options available for the BM mounts with RG-58 cable: PL259 (standard) Teflon PL259 (P) Mini-UHF (PL) BNC (BN) TNC (C) N (N) Female FME (FME) Male SMA (MSMA) Right Angle Male SMA (SMARA58)
(W)	GPSPMR (for mirror mount)	Specify your GPS connector of choice by adding the connector abbreviation from the above list to the part number.	Specify your connector of choice for the mobile antenna side by adding the connector abbreviation from the above list to the part number.
(W)	GPSPMM (for magnet mount)		
(W)	GPSPTM (for trunk lid mount)		
(W)	GPSPSM (for stud mount)		

Sharkfin Multi-band Roof Mount Antennas

The Sharkfin antennas provide multi-band omnidirectional coverage in an attractive, low profile housing. The tri-band and quad-band models also provide GPS navigation support capability. Their low profile thru-hole layout offers an attractive antenna design that provides optimal sealing for leakage resistance.

Features

- Low, aerodynamic profile eliminates wind noise commonly experienced with external mount vehicular applications
- Overmolded gasket design provides optimal sealing from condensation and water ingress
- Integrated antenna mast design provides secure installation to the vehicle
- UV stability for outdoor applications
- Multi-banding reduces number of antennas on the vehicle
- GPS navigation support on select models

GPS Antenna Electrical Specifications

Operating Frequency	Nominal Gain	Gain - Antenna Element	Noise Figure
L1: 1575.42	24 dB	3.5 dBic	2.0 dB nominal

Multi-band Antenna Electrical Specifications

Operating Frequencies	Antenna Gain
824-896 MHz (AMPS); 1850-1990 MHz (PCS)	Unity
870-960 MHz (GSM); 1710-1880 MHz (GSM 1800)	Unity
2.4 GHz-2.5 GHz (WiFi); 4.9-5.9 MHz (Public Safety/WiMAX)	Unity

Frequency Range

Model*	Frequency Range
GPSDB series	AMPS/PCS
GPSQB series	AMPS/PCS/GPS/WLAN
GPSQBE series	GSM/GSM 1800/GPS/WLAN
GPSTB series	AMPS/PCS/GPS
GPSTBE series	GSM/GSM 1800/GPS
GPSDBHF series	WiFi/Public Safety/WiMAX

Environmental Specifications

Operating Temperature Range	Humidity Rating
-40° C to +85° C	95%

* Please specify connector preference when ordering.



“Sharkfin” Multi-Band Antenna

MAXRAD

Technical Data

Maximum Power: 10 watts (Tri-Band) 5 watts (GPSDBHF)
Polarization: Right hand circular
Input Impedance: 50 ohms
VSWR: < 1.8:1 (GPS) < 2.0:1 (Multi-band)
Grounding Protection: DC grounded (GPSDBHF)
Azimuth Coverage: 360°
Elevation Coverage: Hemispherical
Operating Supply Voltage: 2.7 - 5.5 V
Housing: Black, UV protected ABS
Housing Dimensions: 97 mm (major axis) x 60 mm (minor axis) x 70 mm H
Cable: 10' RG-174 (3) 12 ft Pro-Flex™ Plus 195, black (GPSDBHF)
Connector Options (GPS antenna*): SMB plug (SBP), SMA male (MSMA), SMA female (FSMA), MCX male (MCX)
Connector (mobile antenna*): SMA male (MSMA), SMA female (FSMA) Reverse polarity, reverse threaded Male SMA (GPSDBHF)
Mount Method: Through hole mounting

For detailed specifications,
visit <http://antenna.pctel.com>.



Medallion™ ASPDM8891 Series



Medallion® ASP8891



Excellent choice for fixed installations

Medallion® Low Profile Horizontal Antennas

The **Antenna Specialists®** Medallion® antennas are designed to be used in either mobile roof mount, or fixed data applications. The series include models with added GPS navigation support capabilities. Featuring a rugged low profile design for reduced visibility, these antennas are ideal for digital voice or mobile data communications in police vehicles, transit buses, trains, construction trucks and fire-fighting engines.

Features

- Multi-band - Cellular and PCS coverage with active GPS capabilities on select models
- Broadband - cover the entire range of specified frequencies without tuning
- Low Profile - rugged low visibility design reduces exposure to theft or vandalism
- Economical - only one antenna is needed to obtain multiple band coverage
- Durable - high impact molded radome provides added protection for long lasting performance while ultrasonic seal protects the GPS component against extreme weather conditions
- Versatile - ideal for transit buses or trains, public safety and emergency vehicles and construction equipment

MAXRAD

Technical Data

Maximum Power: 10 watts (Cellular and PCS), 1μ Watt (ASPDM8891TG and ASPDM8891FG) 50 watts (ASP8891 and ASPDM8891)
Polarization: Vertical (ASP8891 and ASPG8891) RHCP (GPS, ASPDM8891 and ASPDM8891)
Nominal Impedance: 50 ohms
VSWR: < 2.0:1
Radome Material: Black ABS
Radiator Material: Brass
Weather Protection: Ultrasonic seal and O-ring; foam Neoprene perimeter pad
Cable: See Mechanical Specifications
Connector Options: See Mechanical Specifications
Mount Method: Compatible with 3/4" hole mounts (ASPDM8891 and ASPDM8891) Compatible with A/S® male-female contact mount contact mounts (ASP8891 and ASPG8891) Mount sold separately

For detailed specifications, visit <http://antenna.pctel.com>.

Antenna Electrical Specifications

Model	Frequency Range (Cellular, PCS, GPS)	Bandwidth	Gain	E-plane Beamwidth
ASP8891	806-894 MHz	88 MHz	Unity	55° nominal
ASPG8891	890-960 MHz	70 MHz	Unity	55° nominal
ASPDM8891TG	824-894 MHz, 1850-1990 MHz 1575.42 MHz	70 MHz Cellular, 140 MHz PCS, 10 MHz GPS	Unity (Cellular/PCS) 5 dBic GPS	55° nominal
ASPDM8891FG	824-894 MHz, 1850-1990 MHz 1575.42 MHz	70 MHz Cellular, 140 MHz PCS, 10 MHz GPS	Unity (Cellular/PCS) 5 dBic @ zenith (GPS)	55° nominal

Mechanical Specifications

Model	Dimensions	Cable	Connector
ASP8891	4.88" O.D. x 1.38" H	Sold separately	Sold separately with cable assembly
ASPG8891	4.88" O.D. x 1.38" H	Sold separately	Sold separately with cable assembly
ASPDM8891TG	4.88" O.D. x 1.38" H	Pro-Flex™ Plus (Cellular/PCS) 16.5 ft RG-174/U (GPS)	TNC male loose (Cellular/PCS) SMA male attached (GPS)
ASPDM8891FG	4.88" O.D. x 1.38" H	Pro-Flex™ Plus (Cellular/PCS) 16.5 ft RG-174/U (GPS)	FME male loose (Cellular/PCS) SMA male attached (GPS)

Low Noise Amplifier Specifications

Model	Amplifier Gain	Output VSWR	DC Current	DC Bias	Noise Figure	Filter Attenuation		
ASPDM8891TG	27 dB, typical	2:1	15 mA, maximum	5.0 V	1.5 dB, typical	1575.42 +/-20 MHz 7 dB min	1575.42 +/-50 MHz 20 dB min	1575.42 +/-100 MHz 30 dB min
ASPDM8891FG	27 dB, typical	2:1	15 mA, maximum	5.0 V	1.5 dB, typical	1575.42 +/-20 MHz 7 dB min	1575.42 +/-50 MHz 20 dB min	1575.42 +/-100 MHz 30 dB min



ASP574 low profile transit antenna series for VHF coverage



AST8001900GPS provides wideband coverage of 800/900 MHz, PCS frequencies and GPS tracking support



Technical Data

Maximum Power: 25 watts (AST8001900GPS) 100 watts (all other models)
Polarization: Vertical Right hand circular (GPS L1 frequencies)
Nominal Impedance: 50 ohms
VSWR: < 1.5:1 (GPS L1 frequencies) < 2.0:1
Radome Material: White, high impact molded ASA
Termination: (See Electrical Specifications)
Cable: Sold separately. Call factory for cable assembly options.
Connector Options: See Mechanical Specifications
Mount Method: Standard 1-5/16" roof hole mount Supplied with screws and weather-proof gasket.

Silhouette Transit Antennas

Our **Antenna Specialists®** Silhouette antennas are designed for transit vehicle installations including buses, police vehicles, fire-fighting engines, railroad equipment, airport service vehicles, and construction equipment. These low profile multi-band antennas provide wideband coverage of specific frequencies without field tuning required.* They are housed in a high impact molded ASA radome for long-lasting performance under severe environmental conditions. A GPS multi-band model is also available.

Features

- Rugged - high impact molded ASA radome assures long, reliable performance and protection against the elements
- High Performance - when mounted on a flat surface, maximum radiation is vertical and omnidirectional
- Disguised Appearance - low profile for minimum exposure to theft or vandalism
- Wideband Coverage - requires no field tuning*
- GPS Tracking Support Capability - AST800/1900GPS model

Antenna Electrical Specifications

Model	Frequency Range	Bandwidth**	Gain
ASPB574**	148-160 MHz	0.5 MHz	Unity
ASPC574**	160-174 MHz	0.5 MHz	Unity
ASP372	380-400 MHz	20 MHz	Unity
ASP572	450-470 MHz	20 MHz	Unity
ASP772	450-470 MHz	20 MHz	Unity
ASPB572	470-488 MHz	18 MHz	Unity
ASPB772	470-488 MHz	18 MHz	Unity
ASPC572	488-512 MHz	24 MHz	Unity
ASPC772	488-512 MHz	24 MHz	Unity
ASP931	806-894 MHz	88 MHz	Unity
AST8001900GPS	806-960 MHz and 1850-1990 MHz 1575.42 +/-10 MHz (GPS L1)	154 MHz/ 140 MHz	Unity (800/900 MHz and 1850-1990 MHz) 3.5 dBic Nominal (GPS)
ASPG931	890-960 MHz	154 MHz	Unity

For detailed specifications, visit
<http://antenna.pctel.com>.

* All models except those covering VHF frequencies
**(Field Tunable within Specified Frequencies)

Mechanical Specifications

Model	Termination	Dimensions
ASPB574**	SO-239	4.1" H x 17" L x 3.5" W
ASPC574**	SO-239	4.1" H x 17" L x 3.5" W
ASP372	UHF female bulkhead	3.4" H x 8" L x 3.5" W
ASP572	UHF female bulkhead	3.13" H x 8" L x 3.5" W
ASP772	BNC female bulkhead	3.4" H x 8" L x 3.5" W
ASPB572	UHF female bulkhead	3.4" H x 8" L x 3.5" W
ASPB772	BNC female bulkhead	3.4" H x 8" L x 3.5" W
ASPC572	UHF female bulkhead	3.4" H x 8" L x 3.5" W
ASPC772	BNC female bulkhead	3.4" H x 8" L x 3.5" W
ASP931	N female bulkhead	3.4" H x 8" L x 3.5" W
AST8001900GPS	N female bulkhead (800/1900 MHz frequencies) 17 ft RG-174/U with male SMA (GPSL1 frequencies)	3.4" H x 8" L x 3.5" W
ASPG931	N female bulkhead	3.4" H x 8" L x 3.5" W

Low Noise Amplifier Specifications

Frequency Band	Axial Ratio	Amplifier Gain	Isolation between Antennas
1575.42 +/-10 MHz	< 3 dB @ boreside	26 dB +/-3 (across 20 MHz bandwidth)	> 65 dB active (806-960 MHz to GPS) > 60 dB active (1850-1990 MHz to GPS) > 20 dB passive (1575 MHz +/-1 MHz to GPS)

DC Current	DC Voltage	Noise Figure	Filtering	Out-of-Band Signal Rejection	P1 dB	OIP3
20 mA nominal; < 30 mA @ -40°C to +85°C	3 - 13.5 V	< 1.8:1 typical @ 25°C < 2.2:1 @ -40°C to +85°C	Hybrid (including pre-selector)	> 30 dB @ +/-50 MHz	> 5 dBm typical	14 dBm typical

* All models except those covering VHF frequencies

** (Field Tunable within Specified Frequencies)



AGPS26MM

MAXRAD

Technical Data

Polarization: Right hand circular
Input Impedance: 50 ohms
VSWR: 2.0:1, maximum (Filter/LNA)
Operating Supply Voltage: 3-5 Vdc; 50 mV p-p ripple (maximum)
Housing: Black, UV-stable plastic
Cable: 17 feet RG-174/U
Connectors Options**: MSMA or Right Angle SMB Plug standard MC, BN, FFME, ASBJ, ASBP, MCX, MMCX available
Cable Pull Force: 10 lbs, minimum
Magnet Pull Force: 5 lbs, minimum
Mount Method: Magnet (MM suffix)
Additional Mount Options*: Screw (SM), mirror (MR) or adhesive tape™

For detailed specifications,
visit <http://antenna.pctel.com>.

Multiple Mount GPS L1 GPS Antenna

The Max-Matics™ AGPS26 global positioning system (GPS) antenna features an electrically shielded LNA PCB assembly that is permanently encased in a UV-stable, black radome. Providing 26 dB of gain and 3 to 5 Vdc operation, this active GPS antenna provides outstanding GPS support for a multitude of vehicle tracking applications. This magnetic mount antenna can be ordered with additional screw, mirror or tape mount hardware, and a variety of connector options for added installation flexibility and compatibility with most GPS systems.

Features

- Various mount options for maximum versatility. Magnetic mount standard. Screw, tape or mirror mount hardware optional.
- Wide variety of connector options provide greater flexibility and compatibility with most GPS systems.

Filter/LNA Antenna Electrical Specifications

Operating Frequency	Gain	Noise Figure	Out-of-Band Attenuation	Current Consumption
L1: 1575.42 +/- 1.023 MHz	26 dB typical	1.8 dB typical (2.2 dB maximum)	fo=1575.42 MHz fo +/- 20 MHz 7 dB, typical fo +/- 50 MHz 20 dB, typical fo +/- 100 MHz 30 dB, typical	20 mA, maximum @ 3-5 Vdc (9 mA typical)

Antenna Patch Electrical Specifications

Center Frequency	Gain	Bandwidth	Axial Ratio
1575.42 +/- 3 MHz (when covered with a radome and measured by a 2.75 x 2.75 inch ground plane)	+5.0 dBic typical at zenith -1.0 dBic minimum at 10° elevation	10 MHz minimum (10 dB return loss)	3.0 dB typical

Mechanical Specifications

Dimensions	Weight (Mass)
2" x 1.77" x .55"	4.09 +/- 0.35 oz

Environmental Specifications

Operating Condition	Storage Condition
-40°C to +85°C temperature 10 to 95% RH humidity	-40°C to +85°C temperature 10 to 95% RH humidity

* To select mount preference, add the corresponding suffix to the AGPS26 part number. Example: AGPS26SM indicates a magnetic base AGPS26 antenna with additional screw mount hardware.

** Please specify connector preference when ordering.

Low Profile GPS L1 Through-Hole Mount Antennas

The vehicle tracking antennas feature light, low profile housings that are highly adaptable for vehicle tracking or marine navigation applications.

Their radome is molded from high grade polymer resin for UV and abrasion resistance under severe environmental conditions.

Fitted with a ceramic filter to reject spurious signals, these antennas are designed for fixed, environmentally sealed installations.



32000 Series

MAXRAD

Low Noise Amplifier Specifications

Model	Frequency Band	Amplifier Gain	Nominal Impedance	Output VSWR
3226MSMA	1575.42 MHz (GPS L1)	26 dB +/-3	50 ohms	1.5:1 typical
3226MC	1575.42 MHz (GPS L1)	26 dB +/-3	50 ohms	1.5:1 typical
3235MSMA	1575.42 MHz (GPS L1)	34 dB +/-4	50 ohms	1.5:1 typical
3235MC	1575.42 MHz (GPS L1)	34 dB +/-4	50 ohms	1.5:1 typical

Model	DC Current	DC Voltage	Noise Figure	Filtering	Out-of-Band Rejection
3226MSMA	20 mA Nominal < 30 mA @ -40°C to +85°C	3 - 13.5 V	1.8 typical	Hybrid (including pre-selector)	> 40 dB @ +/-50 MHz
3226MC	20 mA Nominal < 30 mA @ -40°C to +85°C	3 - 13.5 V	1.8 typical	Hybrid (including pre-selector)	> 40 dB @ +/-50 MHz
3235MSMA	20 mA Nominal < 30 mA @ -40°C to +85°C	3 - 13.5 V	1.8 typical	Hybrid (including pre-selector)	> 40 dB @ +/-50 MHz
3235MC	20 mA Nominal < 30 mA @ -40°C to +85°C	3 - 13.5 V	1.8 typical	Hybrid (including pre-selector)	> 40 dB @ +/-50 MHz

Technical Data

Polarization: Right hand circular
Input Impedance: 50 ohms
VSWR: 1.5:1 typical
Axial Ratio: <3 dB @ boresight
Radome Color: Black
RF Cable: 17 ft RG-174
Mount Method: Through-hole

For detailed specifications, visit <http://antenna.pctel.com>.

Antenna Electrical Specifications

Model	Frequency	Gain
3226MSMA	1575.42 MHz (GPS L1)	+3.5 dBiC Nominal
3226MC	1575.42 MHz (GPS L1)	+3.5 dBiC Nominal
3235MSMA	1575.42 MHz (GPS L1)	4 dBiC Nominal
3235MC	1575.42 MHz (GPS L1)	4 dBiC Nominal

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Connector Options
3226MSMA	2.5" OD x 0.5" D	25 grams	Male SMA plug
3226MC	2.5" OD x 0.5" D	25 grams	Male TNC
3235MSMA	2.5" OD x 0.5" D	25 grams	Male SMA plug
3235MC	2.5" OD x 0.5" D	25 grams	Male TNC

Environmental Specifications

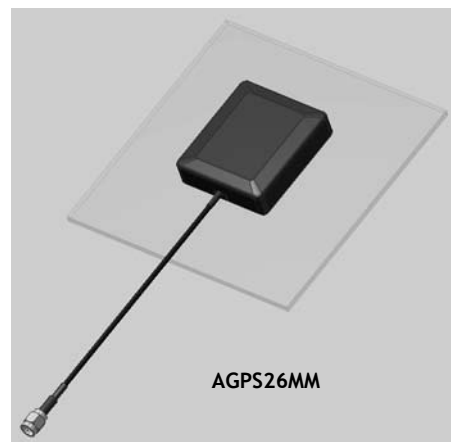
Temperature Range	Humidity	Mechanical Shock	Fluid Shower
-40°C to +85°C (operating)	95%	25 g maximum	Water, salt mist, windshield wiper fluid Detergent with wax: no degradation

26 dB Gain GPS L1 Glass Mount Antenna

The AGPS26GMMSMA glass mount global positioning system (GPS) antenna utilizes an electrically shielded LNA PCB assembly and ceramic filter designed to provide high out-of-band rejection for optimal integration in multi-band installations. The assembly is permanently encased in a compact, UV-stable radome, making it ideal for concealed vehicle tracking applications.

Features

- Outstanding interference rejection
- High bond tape for vehicle windshield glass installation
- Rugged, low profile housing for minimum visibility
- 26 dB gain
- ESD protection



Antenna Electrical Specifications (Patch)

Center Frequency	Polarization	Nominal Impedance	VSWR	Gain at Zenith
1575.42 MHz (GPS L1)	Right hand circular	50 ohms	1.5:1 typical	3 dBiC Nominal

Mechanical Specifications

Dimensions (L x W x D)

2.22" x 1.97" x .59"

Environmental Specifications

Operating Temperature Range	Storage Temperature Range	Operating Condition	Storage Condition	High Bond Tape Specifications
-40°C to +85°C	-40°C to +85°C	-40°C to +85°C temperature 10 to 95% RH humidity	-40°C to +85°C temperature 10 to 95% RH humidity	<ul style="list-style-type: none"> • Conformable foam • Acrylic adhesive • Moisture and solvent resistant • High shear and peel adhesion

MAXRAD

Electrical Specifications (Filter/LNA)

Housing: Black, UV-stable plastic
Amplifier Gain without Antenna Element and Cable: 26 dB +/-3
Noise Figure (25°): 1.8 typical
Voltage: 3-5 V (regulated)
DC Current @ 5 Volts: 20 mA Nominal < 30 mA @ -40°C to +85°C Filter Out-of-Band
Filtering: Hybrid (including pre-selector)
Out-of-Band Signal Rejection: 40 dB @ +/-50 MHz typical
Cable: 17 ft RG-174/U
Connector: Male SMA (attached)
Mounting Method: High Bond tape for glass mounting

For detailed specifications, visit <http://antenna.pctel.com>.

* To select mount preference, add the corresponding suffix to the AGPS26 part number. Example: AGPS26SM indicates a magnetic base AGPS26 antenna with additional screw mount hardware.

** Please specify connector preference when ordering.



APDM5920U, vertical installation.
The antenna can also be
installed horizontally.

MAXRAD

Technical Data

Maximum Power: 10 watts
Polarization: Linear, horizontal or vertical
Nominal Impedance: 50 ohms
VSWR: < 2.0:1
Radiator Material: ABS
Coax Cable: 10 ft RG-174/U cable (bottom fed)
Connector SAP (female FME)
Dimensions: 0.5" D x 5.9" L
Mounting Method: Normount® Z500 tape

For detailed specifications,
visit <http://antenna.pctel.com>.

Inside Window Glass Mount

This vertical or horizontal polarization antenna is designed for inside glass mount installations operating in the 800 MHz cellular, 900 MHz trunking, 1800 MHz DCS and 1900 MHz PCS bands without the need for tuning. Its tape mount easily attaches to a vehicle's windshield or other glass surfaces making the antenna ideal for public safety or other applications requiring an unobtrusive design.

Features

- Quad Band – covers 800 MHz cellular, 900 MHz trunking, 1800 MHz DCS, and 1900 MHz PCS
- Low Profile – “sleek” appearance blends well with car dash interior
- Efficient – simple mounting method allows installation in minutes without holes
- Economical – one antenna serves the function of four, minimizing installation and inventory requirements
- Antenna can be oriented vertically or horizontally for maximum installation flexibility

Antenna Electrical Specifications

Model	Frequency Range	Gain	Bandwidth
APDM5920U	824-960/1710-1990 MHz	Unity	136/280 MHz

Normount® is a registered trademark of Norton, a Saint-Gobain Co.

Concealed Glass Mount Patch Dual Band Antennas

The rugged, low profile design of this concealed patch antenna minimizes the required space necessary for glass mount installation while providing optimal electrical performance. It is ideal for covert vehicular public safety applications.

Features

- Interior glass mount antenna solution that facilitates installation without any tools.
- Low-loss RG-58/21 cable provides maximum signal strength to the antenna for superior system performance.
- Mounting template included to ensure proper antenna positioning.
- Compact, low profile radome for covert vehicular applications



MIGC824/1850

Antenna Electrical Specifications

Model	Frequency Range	Gain
MIGC824/1850*	824-896 MHz/1850-1990 MHz	Unity, Cellular and PCS
MIGC824/1850U	824-896 MHz/1850-1990 MHz	Unity, Cellular and PCS

Mechanical Specifications

Model	Antenna Dimensions	Weight
MIGC824/1850*	3.1" L x 3.1" W x 0.5" D	0.35 lbs
MIGC824/1850U	3.1" L x 3.1" W x 0.5" D	0.35 lbs

MAXRAD

Technical Data

Maximum Power: 10 watts
Normal Impedance: 50 ohms
VSWR: <1.9:1
Cable: 10 ft RG-58/U
Antenna Base and Radiator Material: Black UV stable ABS
Connector Options*: Female FME (FFME) Male Mini-UHF (PL) Male TNC (C) TNC and Mini-UHF adapters (U)

For detailed specifications, visit <http://antenna.pctel.com>.

* Please specify connector preference when ordering by adding connector suffix after part number.



“On-Glass”® Dual Band, Window Mount 3 dB Gain Antennas

Our Antenna Specialists® “On-Glass”® Premium antennas have been precision engineered to provide optimal coverage for both iDEN and PCS frequencies in a low profile antenna design. They are available with various connector options.

Features

- Precision Engineered – 3 dB performance at all specified frequencies in smaller footprint for minimal visual obstruction
- Flexible Foot – firmly adheres to curved glass surfaces for secure vehicular installations
- Patented Whip Design – special phasing coil achieves in-phase signal transmission and reception using 2 collinear elements at both frequencies
- High Performance – patented coupling box provides maximum efficiency while PRO-FLEX™ PLUS cable minimizes loss
- Convenient – install only one antenna to cover all 800/900 MHz and PCS frequencies, minimizing installation time and costs
- Frequency Tuned Design – optimum performance with no field tuning required
- Straked Whip – for reduced wind noise and better RF reception

Antenna Electrical Specifications

Model	Frequency Range	Bandwidth	Gain
APDM928M	806-960/1850-1990 MHz	154 MHz/140 MHz	3 dB/3 dB
APDM928S	806-960/1850-1990 MHz	154 MHz/140 MHz	3 dB/3 dB
APDM928T	806-960/1850-1990 MHz	154 MHz/140 MHz	3 dB/3 dB
APDM928TM	806-960/1850-1990 MHz	154 MHz/140 MHz	3 dB/3 dB
APDM928U	806-960/1850-1990 MHz	154 MHz/140 MHz	3 dB/3 dB
APDM928	806-960/1850-1990 MHz	154 MHz/140 MHz	3 dB/3 dB
APDM928PCS	806-960/1850-1990 MHz	154 MHz/140 MHz	3 dB/3 dB
APDM928M/T	806-960/1850-1990 MHz	154 MHz/140 MHz	3 dB/3 dB

Mechanical Specifications

Model	Connector	Antenna Height
APDM928M	Mini-UHF male	14”
APDM928S	SMA male	14”
APDM928T	TNC male	14”
APDM928TM	TNC male with Mini-UHF adapter	14”
APDM928U	SAP	14”
APDM928	None	14”
APDM928PCS	SAP with Mini-UHF and TNC adapters	14”
APDM928M/T	Mini-UHF and TNC male	14”

MAXRAD

Technical Data

Maximum Power: 10 watts
Nominal Impedance: 50 ohms
VSWR: <1.9:1
Radiator Material: 0.090” 300 series stainless steel with black DURA-COAT™ finish
Cable: 15 ft PRO-FLEX™ PLUS cable
Mount Method: Glass mount

For detailed specifications, visit <http://antenna.pctel.com>.

“On-Glass”® Dual Band Window Mount Quarter Wave Antennas

Our **Antenna Specialists**® “On-Glass”® unity gain quarter wave antennas provide optimal coverage of both iDEN and PCS frequencies in very compact design for minimum visibility. They are available with several connector options.

Features

- Sleek Appearance – smaller footprint provides minimum visual impact
- Low Profile – short quarter wave design for localized urban areas where higher gain may not be required
- Flexible Foot – improved design adheres better to curved glass surfaces
- Frequency Tuned Design – optimum performance with no field tuning required
- High Performance – patented coupling box provides maximum efficiency while PRO-FLEX™ PLUS cable minimizes loss
- Economical – one antenna serves the function of two, minimizing installation time and inventory requirements

Antenna Electrical Specifications

Model	Frequency Range	Gain	Bandwidth
APDM928.1M	806-960/1850-1990 MHz	Unity/Unity	154 MHz/140 MHz
APDM928.1PCS	806-960/1850-1990 MHz	Unity/Unity	154 MHz/140 MHz
APDM928.1T	806-960/1850-1990 MHz	Unity/Unity	154 MHz/140 MHz
APDM928.1U	806-960/1850-1990 MHz	Unity/Unity	154 MHz/140 MHz

Mechanical Specifications

Model	Connector
APDM928.1M	Mini-UHF male
APDM928.1PCS	Female FME with Mini-UHF and TNC adapter
APDM928.1T	TNC male
APDM928.1U	FME



APDM928.1 Series

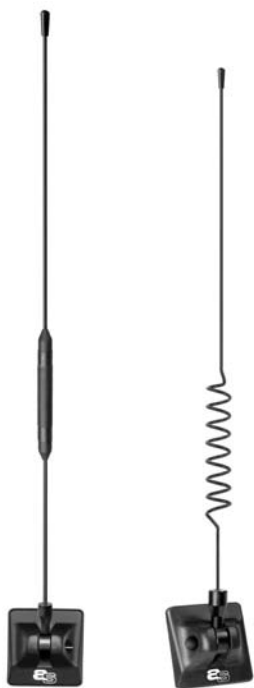
U.S. Patent No. 4,839,660
and 6,215,241 B1 and other
patents pending

MAXRAD

Technical Data

Maximum Power: 10 watts
Nominal Impedance: 50 ohms
VSWR: <1.9:1
Radiator Material: 0.39" flexible plastic
Coax Cable: 15 ft PRO-FLEX™ PLUS cable
Whip Length: 4 inches
Mounting Method: Glass mount

For detailed specifications,
visit <http://antenna.pctel.com>.



APA874.3M

APR852.3

APR852.3 Series
U.S. Patent No. 4,238,799

“On-Glass”® 3 dB Window Mount Antennas

Our **Antenna Specialists**® “On-Glass”® 3 dB antennas provide optimal coverage of 800 and 900 MHz frequencies with outstanding VSWR performance of <1.5:1. Their patented mount design features a compact coupling box and flexible foot that transmits and receives through glass without holes while firmly adhering to curved glass surfaces.

Features

- Flexible Foot - improved design adheres better to curved glass surfaces on today's automobiles
- Optimum Performance - a typical VSWR of less than 1.5:1 across the specified frequencies
- Frequency Tuned Design - optimal performance in virtually every installation with no tuning required
- Hand-adjustable Whip - constant tension keeps whip vertical during normal use, yet whip can be folded down quickly and easily before entering a car wash, without using tools. Whip removal is not required
- Models available with open or enclosed coil straked whips

MAXRAD

Technical Data

Maximum Power: 10 watts 35 watts (APR models)
Nominal Impedance: 50 ohms
VSWR: < 1.5:1
Radiator Material: Stainless steel, black DURA-COAT™ finish
Base: Polyurethane molded foot with brass insert and stainless steel hardware
Coax Cable: 15 ft PRO-FLEX™ PLUS
Whip Length: Approximately 13" (APD876.3 models) 14.7" (APD873.3 models) 12.7 inches (APR models) 14.5 inches (APA877.3M)
Mounting Method: Glass mount

For detailed specifications, visit <http://antenna.pctel.com>.

Antenna Electrical Specifications

Model	Frequency Range	Gain	Bandwidth
APA874.3M	806-869 MHz	3 dB	63 MHz
APR852.3	806-869 MHz	3 dB	63 MHz
APR852.3B	806-869 MHz	3 dB	63 MHz
APR852.3M	806-869 MHz	3 dB	63 MHz
APR852.3N	806-869 MHz	3 dB	63 MHz
APR852.3P	806-869 MHz	3 dB	63 MHz
APR852.3T	806-869 MHz	3 dB	63 MHz
APD873.3M	824-894 MHz	3 dB	70 MHz
APD873.3T	824-894 MHz	3 dB	70 MHz
APD873/CP	824-894 MHz	3 dB	70 MHz
APD876.3M	824-894 MHz	3 dB	70 MHz
APD876.3T	824-894 MHz	3 dB	70 MHz
APD876/CP	824-894 MHz	3 dB	70 MHz
APXD873.3M	824-894 MHz	3 dB	70 MHz
APXD873.3T	824-894 MHz	3 dB	70 MHz
APXD876.3M	824-894 MHz	3 dB	70 MHz
APXD876.3T	824-894 MHz	3 dB	70 MHz
APRG852.3M	890-960 MHz	3 dB	70 MHz
APRG852.3N	890-960 MHz	3 dB	70 MHz
APRG852.3T	890-960 MHz	3 dB	70 MHz
APRG852.3U	890-960 MHz	3 dB	70 MHz

Mechanical Specifications

Model	Connector	Whip Style
APA874.3M	Mini-UHF male	Enclosed
APR852.3	No connector	Open
APR852.3B	BNC male	Open
APR852.3M	Mini-UHF male	Open
APR852.3N	N male	Open
APR852.3P	UHF male	Open
APR852.3T	TNC male	Open
APD873.3M	Mini-UHF crimp	Open
APD873.3T	TNC Male crimp	Open
APD873/CP	Adapter (consumer pack)	Open
APD876.3M	Mini-UHF crimp	Enclosed-straked
APD876.3T	TNC Male crimp	Enclosed-straked
APD876/CP	Adapter (consumer pack)	Enclosed-straked
APXD873.3M	Mini-UHF attached	Open
APXD873.3T	TNC Male attached	Open
APXD876.3M	Mini-UHF attached	Enclosed-straked
APXD876.3T	TNC Male attached	Enclosed-straked
APRG852.3M	Mini-UHF male	Open
APRG852.3N	N male	Open
APRG852.3T	TNC male	Open
APRG852.3U	SAP (female FME)	Open

“On-Glass”® Unity Gain Window Mount Antennas

These **Antenna Specialists®** antennas feature patented “On-Glass”® technology that permits RF transmission and reception through glass. They utilize DUO-BOND™ mounting that permits installation without holes, providing a complete seal against moisture and long lasting holding power.

Features

- Unique - patented “On-Glass”® technology transmits and receives through glass
- Efficient - DUO-BOND™ mounting method allows no-hole installation in minutes, with long-lasting holding power
- Weather Proof - water cannot enter vehicle through gasket failure or cable channels
- Effective - mounts high in the vehicle for optimal omnidirectional coverage
- Convenient - whip is easily adjustable to vertical position and is removable for car wash clearance
- Disguise cellular look-alike models available for covert public safety applications

Antenna Electrical Specifications

Model	Frequency Range	Gain
APR143	138-150 MHz	Unity
APS151	144-174 MHz	Unity
APR153	150-174 MHz	Unity
APR152.3*	150-174 MHz	Unity
APR152.3L*	150-174 MHz	Unity
AP454.3	410-512 MHz	Unity
AP454.3B	410-512 MHz	Unity
AP454.5	410-512 MHz	3 dB
AP455	440-470 MHz	Unity

Mechanical Specifications

Model	Connector	Antenna Height from Mounting Surface	Rod Type
APR143	PL-259 attached	20.7” perpendicular	Coil
APS151	PL-259 attached	20.7” perpendicular	Coil
APR153	PL-259 attached	19.8” perpendicular	Coil
APR152.3	PL-259 attached	23.7” perpendicular	Coil
APR152.3L*	None	23.7” perpendicular	Coil
AP454.3	UHF male on cable	8”	Straight
AP454.3B	BNC male on cable	8”	Straight
AP454.5	UHF male on cable	30”	Encapsulated
AP455	UHF male on cable	18”	Coil

* This model does not include the cable assembly



MAXRAD

Technical Data

Maximum Power: 50 watts
Normal Impedance: 50 ohms
VSWR: < 1.5:1
Radiator Material: Stainless steel, black DURA-COAT™ finish 17-7PH stainless steel encapsulated phasing coil (AP454.5)
Coax Cable: (if included): 15 ft RG-58/U
Required Mounting Footprint: 1.75” square (APR models)
Coupling Unit: DC grounded, shunt-fed
Mounting Method: “On-Glass”® mount with black DURA-COAT™ finish and stainless steel hardware and plastic ABS cover

For detailed specifications, visit <http://antenna.pctel.com>.



No Ground Plane Quarter Wave Antennas

This **Antenna Specialists®** quarter wave antenna features patented “On-Glass”® technology that permits RF transmission and reception through glass. It covers 380-474 MHz TETRA frequencies with no field tuning required. It features DUO-BOND™ mounting that permits installation without holes, providing a complete seal against moisture.

Features

- Unique - patented “On-Glass”® technology transmits and receives through glass
- Weather Proof - water cannot enter vehicle through gasket failure or cable channels
- Effective - mounts high in the vehicle for optimal omnidirectional coverage
- Broadband - requires no field tuning across the entire TETRA range of frequencies
- Efficient - simple mounting method allows no-hole installation in minutes with long lasting holding power.

MAXRAD

Antenna Electrical Specifications

Model	Frequency Range	Gain	Bandwidth
AP354	380-474 MHz	Unity	94 MHz

Technical Data

Maximum Power: 10 watts
Nominal Impedance: 50 ohms
VSWR: < 1.9:1
Radiator Material: 17-7 stainless steel with DURA-COAT™ finish
Coax Cable: 16.5 ft RG-58/U
Connector: Sold separately
Whip Length: 10 inches
Mounting Method: Polyurethane molded foot with brass insert and stainless steel hardware

For detailed specifications,
visit <http://antenna.pctel.com>.

Portable Antennas for LMR

The MAXRAD portable antennas feature a rugged, flexible design that provides performance and durability. They are designed for various portable LMR applications.

Features

- Ground plane independent, half-wave coaxial dipole design*. Provides improved antenna performance and added installation flexibility.
- Flexible design. Provides added durability under demanding wireless environments.

Antenna Electrical Specifications

Model	Frequency Range	Approximate Length	Connector Options
MEXB137	126-127 MHz	6"	BNX connector
MEXB150	150-162 MHz	6"	MX, SFU
MEXS150	150-162 MHz	3.5"	SFU
MEXC450	450-470 MHz	6"	BN, MX, SFU
MEXE902	902-960 MHz	8"	SM, RPSM

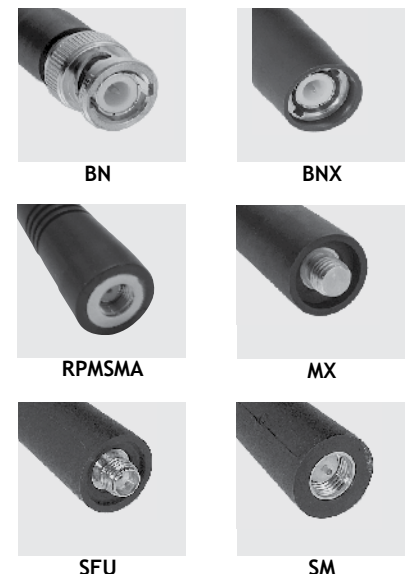
Mechanical Specifications

Model	Connector Options	Description
MEXB137	TNX connector	Helical 1/4 wave, injection molded.
MEXB150	BN, MX, SF, SFU	Helical 1/4 wave, injection molded
MEXS150	SFU	Helical 1/4 wave, injection molded
MEXC450	BN, MX, SFU	1/4 wave, injection molded
MEXE902	SM, RPSM	Half wave dipole; approximately long.

Connectors for Portable Antennas

Model	Description
BN	Male BNC for all equipment requiring BNC, Motorola HT440, HT90, GEPLS, GE, MPI, PLS, PCS, Kenwood TK100, 210, 300, older Maxon, EF Johnson 577, 578
BNX	Covered male BNC for equipment requiring BNC (molded antennas only)
MX	1/4-32 x 7/32 for Motorola MX, HT50, HT600, MT1000, P50, GP300, Expo, Wilson MH200, Radius, Saber, TK240, 300, 230, P10, 100, 200, HT10, TK360, TK353, TK30, TK350, TK250
SFU	King Radio, Uniden (skirt) (molded antenna only)
SM	SM male connector for GE Marc V800 MHz, STS, Technophone (molded antennas only)
RPSM	Reverse Polarity Male SMA

* All models except MEXE902 antennas.



MAXRAD

Technical Data

Polarization: Linear, vertical
Normal Impedance: 50 ohms

For detailed specifications, visit <http://antenna.pctel.com>.

Reinstallation Kits and Coupling Boxes

Part Number	Description	Antenna Series
KAV353	Reinstallation kit for all VHF glass mount antennas	APR143, APR153, APR152.3 SERIES
KAV377	Reinstallation kit for “On-Glass”® antennas	APA874.3, APD873.3, APD876.3, APDM927, AP-454, AP455, APR143, APR152.3, APR153, ASP151
KAV398	Reinstallation base and swivel	APDM928
K93001	Reinstallation tape	APR852.3, APA874.3, APD873.3, APRG852.3, APD876.3, APDM927, AP354, APR143, APR152.3, APR153
KCB143	Replacement Coupling Box, 138-174 MHz	APR143 Series
KCB151	Replacement Coupling Box, 144-174 MHz	APS151
KCB152	Replacement Coupling Box, 150-174 MHz	APR152.3 Series
KCB153	Replacement Coupling Box, 150-174 MHz	APR153 Series
KCB354	Replacement Box, 380-474 MHz	AP354
KCB454	Replacement Coupling Box, 410-512 MHz	AP454
KCB852	Replacement Coupling Box, 806-896 MHz	APR852
KCBR852	Replacement Coupling Box, 890-960 MHz	APRG852.3
KCB876	Replacement Coupling Box, 824-894 MHz	APD876
KCB928	Replacement Coupling Box, 806-960 MHz and 1850-1990 MHz	APDM928
KCBG874	Replacement Coupling Box, 890-960 MHz	APG874.3 Series



KAV377



KAV398

KAV398
(Foot Underside)

K93001 Tape



KCB852



KCB928

VHF/UHF Dual Band Coupler

Designed for use in dual matched systems or with dual band antennas. The MDF150/450 allows the simultaneous operation of a VHF/UHF transceiver with dual antennas or the operation of separate radios with a single antenna. The coupler splits the signal and directs the RF energy to the proper channel while providing excellent (55 dB) isolation to the unused port.

Features

- Heavy duty electroplated steel housing
- High Q silver plated inductors for minimum RF loss
- Multiple stage filter design provides 55 dB isolation between ports
- Ideal for use with MAXRAD dual band antennas or with separate antennas



MDF150/450

Antenna Electrical Specifications

Model	Frequency Range
MDF150/450	VHF Port: 144-174 MHz UHF Port: 406-512 MHz

MAXRAD

Mechanical Specifications

Model	Dimensions
MDF150/450	1-5/16" x 5 3/4" x 2"

Technical Data

Maximum Power: 150 watts through proper port with antenna port termination at 50 ohms for both bands
Impedance: 50 ohms nominal at all ports
VSWR: Less than 1.5:1 through usable bands
Construction: Electroplated steel; bright chrome finish housing
Suppression: 55 dB @ 150 MHz; 55 dB nominal at 450 MHz
Insertion Loss: <.4 dB through frequency band of operations
Connectors: SO-239 (mates with PL259)

For detailed specifications, visit <http://antenna.pctel.com>.

Stainless Steel “M” Series



SM

3/4" hole; 1-1/8"-18 thread; installs from above

Model	Length of Coax	Coax	Connector	Type
SM34	None	N/A	None	N/A
SM34-800	None	N/A	None	N/A
SM-NC	17'	RG-58A/U	None	N/A
SMC-NC	17'	RG-58/U	None	N/A
SMML195-NC	17'	Pro-Flex™ Plus 195	None	N/A
SMLC-NC	17'	RG-8X	None	N/A
SMFLC-NC	17'	RG-U400	None	N/A
SMF-NC	17'	White Teflon	None	N/A
SM	17'	RG-58A/U	Silver Plated PL259	Solder
SMCP	17'	RG-58A/U	Silver Plated PL259	Crimp
SMDSCP	17'	RG-58A/U	Silver Plated PL259	Crimp
SMSP	14'	RG-58A/U	Silver Plated PL259	Solder
SMPCP	17'	RG-58/U	Silver Plated PL259	Crimp
SMP	17'	RG-58/U	Silver Plated Teflon PL259	Solder
SMML195P	17'	Pro-Flex™ Plus 195	Silver Plated Teflon PL259	Solder
SMF	17'	White Teflon	Silver Plated Teflon PL259	Crimp
SMFP	17'	White Teflon	Silver Plated Teflon PL259	Crimp
SMLP	17'	RG-8X	Silver Plated Teflon PL259	Solder
SMSTP	17'	YR29586-9	Silver Plated Teflon PL259	Solder
SMFLP	17'	RG-U400	Silver Plated Teflon PL259	Solder
SMDSP	17'	RG-58A/U	Mini-UHF	Crimp
SMPL	17'	RG-58/U	Mini-UHF	Crimp
SMML195PL	17'	Pro-Flex™ Plus 195	Mini-UHF	Crimp
SMFPL	17'	White Teflon	Mini-UHF	Crimp
SMLPL	17'	RG-8X	Mini-UHF	Crimp
SMSTPL	17'	YR29586-9	Mini-UHF	Crimp
SMFLPL	17'	RG-U400	Mini-UHF	Crimp

* Connector is installed on these mounts only. For all other mounts, connectors may be attached for an additional charge.

Stainless Steel “M” Series

3/4” hole; 1-1/8”-18 thread; installs from above

Model	Length of Coax	Coax	Connector	Type
SMRPC	17'	RG-58A/U	Reverse Polarity TNC	Crimp
SMML195RPC	17'	Pro-Flex™ Plus 195	Reverse Polarity TNC	Crimp
SMAUC	17'	RG-58A/U	TNC	Crimp
SMML195C	17'	Pro-Flex™ Plus 195	TNC	Crimp
SMC	17'	RG-58/U	TNC	Crimp
SMFC	17'	White Teflon	TNC	Crimp
SMLC	17'	RG-8X	TNC	Crimp
SMFLC	17'	RG-U400	TNC	Crimp
SMML195FC	17'	Pro-Flex™ Plus 195	Female TNC	Crimp
SMBN	17'	RG-58/U	BNC	Crimp
SMML195BN	17'	Pro-Flex™ Plus 195	BNC	Crimp
SMLBN	17'	RG-8X	BNC	Crimp
SMFBN	17'	White Teflon	BNC	Crimp
SMFLBN	17'	RG-U400	BNC	Crimp
SMML195NCP	17'	Pro-Flex™ Plus 195	N	Crimp
SMML195NSO	17'	Pro-Flex™ Plus 195	N	Solder
SMNCP	17'	RG-58/U	N	Crimp
SMNSO	17'	RG-58/U	N	Solder
SMFNCP	17'	White Teflon	N	Crimp
SMLNCP	17'	RG-8X	N	Crimp
SMLNSO	17'	RG-8X	N	Solder
SMFLNCP	17'	RG-U400	N	Crimp
SMFLNSO	17'	RG-U400	N	Solder
SMMFME	17'	RG-58/U	Male FME*	Crimp
SMFFME	17'	RG-58/U	Female FME*	Crimp
SMML195MSMA	17'	Pro-Flex™ Plus 195	Male SMA	Crimp
SMML195FSMA	17'	Pro-Flex™ Plus 195	Female SMA	Crimp



SM

* Connector is installed on these mounts only. For all other mounts, connectors may be attached for an additional charge.

BRASS “M” Series



BM

3/4" hole; 1-1/8"-18 thread; installs from above

Model	Length of Coax	Coax	Connector	Type
BM34	None	N/A	None	N/A
BM34-800	None	N/A	None	N/A
BM-NC	17'	RG-58A/U	None	N/A
BMCU-NC**	17'	RG-58/U	None	N/A
BMF-NC	17'	White Teflon	None	N/A
BMLC-NC	17'	RG-8X	None	N/A
BMC-NC**	17'	RG-58/U	None	N/A
BMSL-NC	17'	9258	None	N/A
BMSP-NC	14'	RG-58/U	None	N/A
BMSPC-NC	14'	RG-58/U	None	N/A
BMST-NC	17'	YR29586-9	None	N/A
BMFLC-NC	17'	RG-U400	None	N/A
BMML195-NC	17'	Pro-Flex™ Plus 195	None	N/A
BMML195C-NC	17'	Pro-Flex™ Plus 195	None	N/A
BM**	17'	RG-58A/U	Silver Plated PL259	Solder
BMBST	17'	YR29586-10	Silver Plated PL259	Solder
BMCP	17'	RG-58A/U	Silver Plated PL259	Crimp
BMCU	17'	RG-58/U	Silver Plated PL259	Crimp
BMPCP***	17'	RG-58/U	Silver Plated PL259	Crimp
BMSP	14'	RG-58A/U	Silver Plated PL259	Solder
BMSPCP	14'	RG-58/U	Silver Plated PL259	Crimp
BMST	17'	YR29586-9	Silver Plated PL259	Solder
BMSTP	17'	YR29586-10	Silver Plated PL259	Solder
BMML195	17'	Pro-Flex™ Plus 195	Silver Plated PL259	Solder
BMP	17'	RG-58/U	Silver Plated Teflon PL259	Solder

* Connectors may be attached for an additional charge.

** This mount uses a larger contact button

*** This mount uses a small contact button

BRASS “M” Series

3/4” hole; 1-1/8”-18 thread; installs from above

Model	Length of Coax	Coax	Connector	Type
BMF	17'	White Teflon	Silver Plated Teflon PL259	Crimp
BMFP	17'	White Teflon	Silver Plated Teflon PL259	Solder
BMLP	17'	RG-8X	Silver Plated Teflon PL259	Solder
BMFLP	17'	RG-U400	Silver Plated Teflon PL259	Solder
BMSTP	17'	YR29586-9	Silver Plated Teflon PL259	Solder
BMSPL	14'	RG-58A/U	Mini-UHF	Crimp
BMPL	17'	RG-58/U	Mini-UHF	Crimp
BMFPL	17'	White Teflon	Mini-UHF	Crimp
BMLPL	17'	RG-8X	Mini-UHF	Crimp
BMSTPL	17'	YR29586-9	Mini-UHF	Crimp
BMFLPL	17'	RG-U400	Mini-UHF	Crimp
BMML195PL	17'	Pro-Flex™ Plus 195	Mini-UHF	Crimp
BMBN	17'	RG-58/U	BNC	Crimp
BMFBN	17'	White Teflon	BNC	Crimp
BMLBN	17'	RG-8X	BNC	Crimp
BMSTBN	17'	YR29586-9	BNC	Crimp
BMFLBN	17'	RG-U400	BNC	Crimp
BMML195BN	17'	Pro-Flex™ Plus 195	BNC	Crimp
BMML195RPBNC	17'	Pro-Flex™ Plus 195	Reverse Polarity BNC	Crimp
BMC	17'	RG-58/U	TNC	Crimp
BMFC	17'	White Teflon	TNC	Crimp
BMLC	17'	RG-8X	TNC	Crimp
BMSTC	17'	YR29586-9	TNC	Crimp
BMFLC	17'	RG-U400	TNC	Crimp
BMML195C	17'	Pro-Flex™ Plus 195	TNC	Crimp



BM

* Connectors may be attached for an additional charge.

BRASS “M” Series



BM

3/4" hole; 1-1/8"-18 thread; installs from above

Model	Length of Coax	Coax	Connector	Type
BMML195RPC	17'	Pro-Flex™ Plus 195	Reverse Polarity TNC	Crimp
BMNCP	17'	RG-58/U	N	Crimp
BMNSO	17'	RG-58/U	N	Solder
BMBSTNCP	17'	YR29586-10	N	Crimp
BMFNCP	17'	White Teflon	N	Crimp
BMFNSO	17'	White Teflon	N	Solder
BMLNCP	17'	RG-8X	N	Crimp
BMLNSO	17'	RG-8X	N	Solder
BMSTNCP	17'	YR29586-9	N	Crimp
BMSTNSO	17'	YR29586-9	N	Solder
BMFLNCP	17'	RG-U400	N	Crimp
BMFLNSO	17'	RG-U400	N	Solder
BMML195NCP	17'	Pro-Flex™ Plus 195	N	Crimp
BMML195NSO	17'	Pro-Flex™ Plus 195	N	Solder
BMML195NF	17'	Pro-Flex™ Plus 195	N Female	Crimp
BMMFME	17'	RG-58/U	Male FME*	Crimp
BMML195MFME	17'	Pro-Flex™ Plus 195	Male FME*	Crimp
BMFFME	17'	RG-58/U	Female FME*	Crimp
BMFLFFME	17'	RG-U400	Female FME*	Crimp
BMML195FFME	17'	Pro-Flex™ Plus 195	Female FME*	Crimp
BMSPMSMA	14'	RG-58/U	Male SMA	Crimp
BMMSMA	17'	RG-58/U	Male SMA	Crimp
BMFLMSMA	17'	RG-U400	Male SMA	Crimp
BMML195MSMA	17'	Pro-Flex™ Plus 195	Male SMA	Crimp
BMML195MSMART	17'	Pro-Flex™ Plus 195	Reverse Threaded Male SMA	Crimp
BMMSMARA58	17'	RG-58/U	Right Angle Male SMA	Crimp

* Connector is installed on these mounts only. For all other mounts, connectors may be attached for an additional charge.

BRASS “BMA” Series

3/8” or 3/4” hole; 1-1/8”-18 thread; installs from above; can be used for metal thickness up to 1/8”



Model	Length of Coax	Coax	Connector	Type
BMA38**	None	N/A	None	N/A
BMA-NC**	17'	RG-58/U	None	N/A
BMAFLC-NC	17'	RG-U400	None	N/A
BMA	17'	RG-58/U	Silver Plated PL259	Solder
BMACP	17'	RG-58/U	Silver Plated PL259	Crimp
BMAML195P	17'	Pro-Flex™ Plus 195	Silver Plated PL259	Solder
BMABSTP	17'	YR29586-10	Silver Plated Teflon PL259	Crimp
BMALP	17'	RG-8X	Silver Plated Teflon PL259	Solder
BMAP	17'	RG-58/U	Silver Plated Teflon PL259	Solder
BMALNCP	17'	RG-8X	N	Crimp
BMAML195NCP	17'	Pro-Flex™ Plus 195	N	Crimp
BMANCP	17'	RG-58/U	N	Crimp
BMANSO	17'	RG-58/U	N	Solder
BMAMFNF	17'	RG-58/U	N Female	Crimp
BMABN	17'	RG-58/U	BNC	Crimp
BMAC	17'	RG-58/U	TNC	Crimp
BMAFLC	17'	RG-U400	TNC	Crimp
BMALC	17'	RG-8X	TNC	Crimp
BMALPL	17'	RG-8X	Mini-UHF	Crimp
BMASTC	17'	YR29586-9	TNC	Crimp
BMABSTPL	17'	YR29586-10	Mini-UHF	Crimp
BMAML195PL	17'	Pro-Flex™ Plus 195	Mini-UHF	Crimp
BMAPL	17'	RG-58/U	Mini-UHF	Crimp
BMAML195MSMA	17'	Pro-Flex™ Plus 195	Male SMA	Crimp
BMAMSMA	17'	RG-58/U	Male SMA	Crimp
BMAMFME	17'	RG-58/U	FME*	Crimp
BMAFFME	17'	RG-58/U	Female FME*	Crimp
BMARPC	17'	RG-58/U	Reverse Polarity TNC	Crimp

* Connector is installed on these mounts only. For all other mounts, connectors may be attached at an additional charge.

** This mount installs from below.



K166



K194



K66



ASP3

3/4" Hole Rooftop Mounts for 800 MHz "Male-Female Contact" Antennas

Model	Length of Coax	Coax	Connector
K166M	17'	RG-58/U	Mini-UHF crimped
K166MTT	25'	RG58/U	Mini-UHF crimped
K166T	17'	RG-58/U	TNC male crimped
KD166N	17'	Pro-Flex™ Plus	N male crimped
KD166T	17'	Pro-Flex™ Plus	TNC male crimped
KD166B	17'	Pro-Flex™ Plus	BNC Plug
KD166M	17'	Pro-Flex™ Plus	Mini-UHF male
KEX166	17'	Pro-Flex™ Plus	None
KEX166M	17'	Pro-Flex™ Plus	Mini-UHF male
KE166N	17'	Pro-Flex™ Plus	N male crimped
K194	17'	RG-58/U	None

3/4" Hole Rooftop Mounts for A/S Low Profile Antennas

Model	Length of Coax	Coax	Connector
K66	17'	RG-58/U	PL-259
KD66	17'	Pro-Flex™ Plus	PL-259

Model	Description	Length of Coax	Coax	Connector
ASP3	Standard Professional Cast Aluminum Swivel Base, 3/8"-24 Threaded Hole	N/A	None	None

High Frequency Mounts

3/4" hole; 1-1/8"-18 thread; microwave mount (for antennas operating at frequencies above 1 GHz) Crimp on.

Model	Mount Type	Coax	Connector
MMF	Microwave mount	None	Male SMA*
MMF2	Microwave mount	None	Male SMA*
MHFML195C	High frequency 3/4" hole permanent mount	17 ft. Pro-Flex™ Plus 195	TNC male standard. Contact factory for other connector options.
GMHFML195C	High frequency magnetic mount	17 ft. Pro-Flex™ Plus 195	TNC male standard. Contact factory for other connector options.

* Order cable assembly with female SMA ending separately.



MMF



MHFML195C

High Performance Mounts

For antennas operating at frequencies above 800 MHz

Model	Mount Type	Coax	Connector
MLFML195C	Low frequency 3/4" hole permanent mount	17 ft. Pro-Flex™ Plus 195	TNC male standard. Contact factory for other connector
GMLFML195C	Low frequency magnetic mount		



MLFML195C

W Series

3/8" hole; 1-1/8"-18 thread; installs from above

Model	Length of Coax	Coax	Connector	Type
W38	None	N/A	None	N/A
W-NC	17'	RG-58/U	None	N/A
WSP-NC	14'	RG-58/U	None	N/A
WLC-NC	17'	RG-8X	None	N/A
W	17'	RG-58/U	Silver Plated PL259	Solder
WSP	14'	RG-58/U	Silver Plated PL259	Solder
WP	17'	RG-58/U	Silver Plated Teflon PL259	Solder
WLP	17'	RG-8X	Silver Plated Teflon PL259	Solder
WBN	17'	RG-58/U	BNC	Crimp
WLBN	17'	RG-8X	BNC	Crimp
WC	17'	RG-58/U	TNC	Crimp
WLC	17'	RG-8X	TNC	Crimp
WNCP	17'	RG-58/U	N	Crimp
WNSO	17'	RG-58/U	N	Solder
WLNCP	17'	RG-8X	N	Crimp
WLNSO	17'	RG-8X	N	Solder
WSTNSO	17'	YR29586-9	N	Solder
WPL	17'	RG-58/U	Mini-UHF	Crimp
WLPL	17'	RG-8X	Mini-UHF	Crimp

* Connectors can be attached for an additional charge.



GMLF



W

Thick Surface Mounts - BMATM Series



3/8" or 3/4" hole; 1-1/8"-18 thread; thick plate; installs from below; can be used for metal thickness to 3/16"

Model	Length of Coax	Coax	Connector	Type
BMATM-NC	17'	RG-58/U	None	N/A
BMATMF-NC	17'	White Teflon	None	N/A
BMATMST-NC	17'	YR29586-9	None	N/A
BMATMML195NC	17'	Pro-Flex™ Plus 195	None	N/A
BMATM	17'	RG-58/U	Silver Plated PL259	Solder
BMATMCP	17'	RG-58/U	Silver Plated PL259	Crimp
BMATMFP	17'	White Teflon	Silver Plated PL259	Crimp
BMATMP	17'	RG-58/U	Silver Plated Teflon PL259	Solder
BMATMLP	17'	RG-8X	Silver Plated Teflon PL259	Solder
BMATMBN	17'	RG-58/U	BNC	Crimp
BMATMLBN	17'	RG-8X	BNC	Crimp
BMATMC	17'	RG-58/U	TNC	Crimp
BMATMFC	17'	White Teflon	TNC	Crimp
BMATMFLC	17'	RG-U400	TNC	Crimp
BMATMFRPC	17'	White Teflon	Reverse Polarity TNC Plug	Crimp
BMATMMSMA	17'	RG-58/U	Male SMA	Crimp
BMATMNCP	17'	RG-58/U	N	Crimp
BMATMNSO	17'	RG-58/U	N	Solder
BMATMLNCP	17'	RG-8X	N	Crimp
BMATMLNSO	17'	RG-8X	N	Solder
BMATMSTNCP	17'	YR29586-9	N	Crimp
BMATMBSTNCP	17'	YR29586-10	N	Crimp
BMATMPL	17'	RG-58/U	Mini-UHF	Crimp
BMATMFPL	17'	White Teflon	Mini-UHF	Crimp
BMATMLPL	17'	RG-8X	Mini-UHF	Crimp
BMATMMFME	17'	RG-58/U	Male FME*	Crimp
BMATMFFME	17'	RG-58/U	Female FME*	Crimp
BMATM38		None	None	N/A

* Connector is installed on these mounts only. For all other mounts, connectors can be attached for an additional charge.

3/8" Hole Mounts for Up to 1/2" Thick Roof Thickness

Model	Length of Coax	Coax	Connector
K794	17'	RG-58/U	None
KE794	30'	RG-58/U	None

3/4" Hole Mount for up to 1/2" Thick Roof Thickness

Model	Length of Coax	Coax	Connector
K194	17"	KG-58/U	None



Thick Surface Mounts - BMATM3 Series

3/8" hole; 1-1/8"-18 thread; thick plate; can be used for metal thickness of 1/32"-1/2"

Model	Length of Coax	Coax	Connector	Type
BMATM338	N/A	None	None	N/A
BMATM3-NC	17'	RG-58/U	None	N/A
BMATM3FC	17'	White Teflon	TNC	Crimp
BMATM3FLC	17'	RG-U400	TNC	Crimp
BMATM3CF	17'	RG-58/U	Female TNC	Crimp
BMATM3FLRPC	17'	RG-U400	Reverse Polarity TNC	Crimp
BMATM3FRPC	17'	White Teflon	Reverse Polarity TNC	Crimp
BMATM3CP	17'	RG-58/U	Silver Plated PL259	Crimp
BMATM3	17'	RG-58/U	Silver Plated PL259	Solder
BMATM3MSMA	17'	RG-58/U	SMA	Crimp
BMATM3NCP	17'	RG-58	N Male	Crimp
BMATM3NF	17'	RG-58/U	N Female	Crimp
BMATM3PL	17'	RG-58/U	Mini-UHF	Crimp

* Connector is installed on these mounts only. For all other mounts, connectors can be attached for an additional charge.



BMATM338

MTPM Series

5/8" hole; 1-1/8"-18 thread; thick plate mount

Model	Coax Assembly	Connector
MTPM	Sold separately	UG363/U
MTPM800	Sold separately	N Female



MTPM

MVP/Vandal Proof Mount

5/8" hole; 1-1/8"-18 thread; thick plate mount

Model	Coax Assembly	Connector
MVP	Sold separately	M to N Female

* Connector is installed on these mounts only. For all other mounts, connectors can be attached for an additional charge.



MVP



G

G Magnetic Mount Series

Black/chrome 3-1/4" diameter magnetic mount; 1-1/8"-18 thread

Model	Length of Coax	Coax	Connector	Type
(R)(B)G-NC	12'	RG-58A/U	None	N/A
(R)(B)GCAU-NC* (small pin)	12'	RG-58A/U	None	N/A
(R)(B)GC-NC	12'	RG-58/U	None	N/A
(R)(B)GFC-NC	12'	White Teflon	None	N/A
(R)(B)GFLC-NC	12'	RG-U400	None	N/A
(R)(B)GSU-NC	12'	RG-58A/U	None	N/A
(R)(B)GF-NC	12'	White Teflon	None	N/A
(R)(B)GML195-NC	12'	Pro-Flex™ Plus 195	None	N/A
(R)(B)G	12'	RG-58A/U	Silver Plated PL259*	Crimp
(R)(B)GST	12'	YR29586-9	Silver Plated PL259	Solder
(R)(B)GFL	12'	RG-U400	Silver Plated PL259	Crimp
(R)(B)GBN	12'	RG-58/U	BNC	Crimp
(R)(B)GFBN	12'	White Teflon	BNC	Crimp
(R)(B)GSTBN	12'	YR29586-9	BNC	Crimp
(R)(B)GFLBN	12'	RG-U400	BNC	Crimp
(R)(B)GML195BN	12'	Pro-Flex™ Plus 195	BNC	Crimp
(R)(B)GML195RPBN	12'	Pro-Flex™ Plus 195	Reverse Polarity BNC	Crimp
(R)(B)GC	12'	RG-58/U	TNC	Crimp
(R)(B)GFC	12'	White Teflon	TNC	Crimp
(R)(B)GFLC	12'	RG-U400	TNC	Crimp
(R)(B)GML195C	12'	Pro-Flex™ Plus 195	TNC	Crimp
(R)(B)GSUC	12'	RG-58A/U	TNC	Crimp
(R)(B)GML195RPC	12'	Pro-Flex™ Plus 195	Reverse Polarity TNC	Crimp
(R)(B)GRPC	12'	RG-58/U	Reverse Polarity TNC	Crimp
(R)(B)GP	12'	RG-58/U	Silver Plated Teflon PL259	Solder

* This mount uses a small contact button.

G Magnetic Mount Series

Black/chrome 3-1/4" diameter magnetic mount; 1-1/8"-18 thread

Model	Length of Coax	Coax	Connector	Type
(R)(B)GFP	12'	White Teflon	Silver Plated Teflon PL259	Solder
(R)(B)GFPCP	12'	White Teflon	Silver Plated Teflon PL259	Crimp
(R)(B)GFLP	12'	RG-U400	Silver Plated Teflon PL259	Solder
(R)(B)GSTP	12'	YR29586	Silver Plated Teflon PL259	Crimp
(R)(B)GPL	12'	RG-58/U	Mini-UHF	Crimp
(R)(B)GFPL	12'	White Teflon	Mini-UHF	Crimp
(R)(B)GSTPL	12'	YR29586-9	Mini-UHF	Crimp
(R)(B)GFLPL	12'	RG-U400	Mini-UHF	Crimp
(R)(B)GBSTPL	12'	YR29586-10	Mini-UHF	Crimp
(R)(B)GFNCP	12'	White Teflon	N	Crimp
(R)(B)GFNSO	12'	White Teflon	N	Solder
(R)(B)GBSTNSO	12'	YR29586-10	N	Solder
(R)(B)GFLNCP	12'	RG-U400	N	Crimp
(R)(B)GFLNSO	12'	RG-U400	N	Solder
(R)(B)GML195NCP	12'	Pro-Flex™ Plus 195	N	Crimp
(R)(B)GML195NSO	12'	Pro-Flex™ Plus 195	N	Solder
(R)(B)GNCP	12'	RG-58/U	N	Crimp
(R)(B)GNSO	12'	RG-58/U	N	Solder
(R)(B)GML195MSMA	12'	Pro-Flex™ Plus 195	Male SMA	Crimp
(R)(B)GMSMA	12'	RG-58/U	Male SMA	Crimp
(R)(B)GFSMA	12'	RG-58/U	Female SMA	Crimp
(R)(B)GML195RPMSMA	12'	Pro-Flex™ Plus 195	Reverse Polarity SMA	Crimp
(R)(B)GFLMFME	12'	RG-U400	Male FME*	Crimp
(R)(B)GML195FFME	12'	Pro-Flex™ Plus 195	Female FME*	Crimp
(R)(B)GFFME	12'	RG-58/U	Female FME*	Crimp



G Mount

GM Series

Black/chrome, 2-3/8" diameter magnetic mount; 1-1/8"-18 thread



BGM



GM

Model	Length of Coax	Coax	Connector	Type
(B)GM-NC	12'	RG-58A/U	None	N/A
(B)GMC-NC	12'	RG-58/U	None	N/A
(B)GMML195-NC	12'	Pro-Flex™ Plus 195	None	N/A
(B)GM	12'	RG-58A/U	Silver Plated PL259*	Crimp
(B)GMP	12'	RG-58/U	Silver Plated Teflon PL259	Solder
(B)GMML195PLTF	12'	Pro-Flex™ Plus 195	Silver Plated Female Teflon PL259	Solder
(B)GMK	12'	RG-58A/U	Phono Plug*	Solder
(B)GMBN	12'	RG-58/U	BNC	Crimp
(B)GMSTBN	12'	ARG-29586-9	BNC	Crimp
(B)GMC	12'	RG-58/U	TNC	Crimp
(B)GMML195C	12'	Pro-Flex™ Plus 195	TNC	Crimp
(B)GMSTC	12'	YR29586-9	TNC	Crimp
(B)GMSUC	12'	RG-58A/U	TNC	Crimp
(B)GMML195FC	12'	Pro-Flex™ Plus 195	Female TNC	Crimp
(B)GMRPC	12'	RG-58/U	Reverse Polarity TNC	Crimp
(B)GMFFME	12'	RG-58/U	Female FME*	Crimp
(B)GMML195MSMA	12'	Pro-Flex™ Plus 195	Male SMA	Crimp
(B)GMMSMA	12'	RG-58/U	Male SMA	Crimp
(B)GMML195RPFMSMA	12'	Pro-Flex™ Plus 195	Female Reverse Polarity SMA	Crimp
(B)GMML195NCP	12'	Pro-Flex™ Plus 195	N	Crimp
(B)GMNCP	12'	RG-58/U	N	Crimp
(B)GMNSO	12'	RG-58/U	N	Solder
(B)GMSTNSO	12'	YR29586-9	N	Solder
(B)GMBSTNSO	12'	YR29586-10	N	Solder
(B)GMSUNCP	12'	RG-58A/U	N	Crimp
(B)GMNF	12'	RG-58/U	Female N	Crimp
(B)GMPL	12'	RG-58/U	Mini-UHF	Crimp
(B)GMSTPL	12'	YR29586-9	Mini-UHF	Crimp

Prefix "B" indicates black.

*Connector is installed on these mounts only. For all other mounts, connectors can be attached for an additional charge.

GL Series

Black/chrome, 2-3/8" diameter magnetic mount; 5/16"-24 thread stud

Model	Length of Coax	Coax	Connector	Type
(B)GL-NC	12'	RG-58A/U	None	N/A
(B)GLC-NC	12'	RG-58/U	None	N/A
(B)GLBN	12'	RG-58/U	BNC	Crimp
(B)GLBSTBN	12'	YR29586-10	BNC	Crimp
(B)GLC	12'	RG-58/U	TNC	Crimp
(B)GLNCP	12'	RG-58/U	N	Crimp
(B)GLNSO	12'	RG-58/U	N	Solder
(B)GL	12'	RG-58A/U	Silver Plated PL259*	Crimp
(B)GLP	12'	RG-58/U	Silver Plated Teflon PL259	Solder
(B)GLPL	12'	RG-58/U	Mini-UHF	Crimp

Prefix "B" indicates black.

*Connector is installed on these mounts only. For all other mounts, connectors can be attached for an additional charge.



GL



RLGL



BLGL

LGL Series

Black/chrome, 3-1/4" diameter magnetic mount; 5/16"-24 thread stud

Model	Length of Coax	Coax	Connector	Type
(R)(B)LGL-NC	12'	RG-58A/U	None	N/A
(R)(B)LGLC-NC	12'	RG-58/U	None	N/A
(R)(B)LGL	12'	RG-58A/U	Silver Plated PL259*	Crimp
(R)(B)LGLP	12'	RG-58/U	Silver Plated Teflon PL259	Solder
(R)(B)LGLSTP	17'	YR29586	Silver Plated Male Teflon PL259	Solder
(R)(B)LGLBN	12'	RG-58/U	BNC	Crimp
(R)(B)LGLSTBN	12'	YR29586	BNC	Crimp
(R)(B)LGLC	12'	RG-58/U	TNC	Crimp
(R)(B)LGLNCP	12'	RG-58/U	N	Crimp
(R)(B)LGLNSO	12'	RG-58/U	N	Solder
(R)(B)LGLPL	12'	RG-58/U	Mini-UHF	Crimp

Prefix "R" indicates rubber boot; prefix "B" indicates black. *Connector is installed on these mounts only. For all other mounts, connectors can be attached for an additional charge.



K49

Model	Description	Length of Coax	Coax	Connector
K49	3/4" Hole Toggle Rooftop Mount for Standard Loaded Antennas	N/A	Sold Separately	None

(B)MBM Series



(B)MBM

Black/chrome, 1-1/8"-18 thread; mirror bracket mount

Model	Length of Coax	Coax	Connector	Type
(B)MBM-NC	17'	RG-58A/U	None	N/A
(B)MBMC-NC	17'	RG-58/U	None	N/A
(B)MBMFC-NC	17'	White Teflon	None	N/A
(B)MBMML195-NC	17'	Pro-Flex™ Plus 195	None	N/A
(B)MBMST-NC	17'	YR29586-9	None	N/A
(B)MBM	17'	RG-58A/U	Silver Plated PL259	Solder
(B)MBMCP	17'	RG-58A/U	Silver Plated PL259	Crimp
(B)MBMFLP	17'	RG-U400	Silver Plated PL259	Solder
(B)MBMP	17'	RG-58/U	Silver Plated Teflon PL259	Solder
(B)MBMFP	17'	White Teflon	Silver Plated Teflon PL259	Solder
(B)MBMBN	17'	RG-58/U	BNC	Crimp
(B)MBMFBN	17'	White Teflon	BNC	Crimp
(B)MBMML195RPBN	17'	Pro-Flex™ Plus 195	BNC	Crimp
(B)MBMSTBN	17'	YR29586-9	BNC	Crimp
(B)MBMC	17'	RG-58/U	TNC	Crimp
(B)MBMFC	17'	White Teflon	TNC	Crimp
(B)MBMFLC	17'	RG-U400	TNC	Crimp
(B)MBMML195C	17'	Pro-Flex™ Plus 195	TNC	Crimp
(B)MBMNCP	17'	RG-58/U	N	Crimp
(B)MBMNSO	17'	RG-58/U	N	Solder
(B)MBMFNCP	17'	White Teflon	N	Crimp
(B)MBMFNSO	17'	White Teflon	N	Solder
(B)MBMPL	17'	RG-58/U	Mini-UHF	Crimp
(B)MBMFPL	17'	White Teflon	Mini-UHF	Crimp
(B)MBMSTPL	17'	YR29586-9	Mini-UHF	Crimp
(B)MBMBSTPL	17'	YR29586-10	Mini-UHF	Crimp
(B)MBMML195MSMA	17'	Pro-Flex™ Plus 195	Male SMA	Crimp
(B)MBMFMSMA	17'	White Teflon	Male SMA	Solder
(B)MBMMSMA	17'	RG-58A/U	Male SMA	Solder

Prefix "B" indicates black. Connectors can be attached for an additional charge.

TGBWP Series

1-1/8" -18 thread; trunk/hood groove bracket mount

Model	Length of Coax	Coax	Connector	Cable Exit Angle	Type
TGBWP45-NC	17'	RG-58A/U	None	45°	N/A
TGBWP45C-NC	17'	RG-58/U	None	45°	N/A
TGBWP90-NC	17'	RG-58A/U	None	90°	N/A
TGBWP45MSMA	17'	RG-58U	SMA Plug	45°	Crimp
TGBWP45ML195MSMA	17'	Pro-Flex™ Plus 195	SMA Plug	45°	Crimp
TGBWP45	17'	RG-58A/U	Silver Plated PL259	45°	Crimp
TGBWP90	17'	RG-58A/U	Silver Plated PL259	90°	Solder
TGBWP90CP	17'	RG-58A/U	Silver Plated PL259	90°	Crimp
TGBWP45C	17'	RG-58/U	TNC Plug	45°	Crimp
TGBWP45BN	17'	RG-58/U	BNC	45°	Crimp
TGBWP45ML195RPBN	17'	Pro-Flex™ Plus 195	Reverse Polarity Male BNC	45°	Crimp
TGBWP45PL	17'	RG-58/U	Mini-UHF	45°	Crimp
TGBWP45FFME	17'	RG-58/U	Female FME*	45°	Crimp

*Connector is installed on these mounts only. For all other mounts, connectors can be attached for an additional charge.



TGBWP45

MPM Series

3/4" hole, 1-1/8" -18 thread; pivot mount

Model	Length of Coax	Coax	Connector	Degree of Adjustment	Type
MPM34	None	N/A	None	16°	N/A
MPM-NC	17'	RG-58A/U	None	16°	N/A
MPMC-NC	17'	RG-58/U	None	16°	N/A
MPM24-NC	17'	RG-58/U	None	24°	N/A
MPM26-NC	17'	RG-58A/U	None	26°	N/A
MPM26DSCP	17'	Double Shielded RG-58A/U	Silver Plated PL259	26°	N/A
MPM	17'	RG-58A/U	Silver Plated PL259	16°	Solder
MPMC	17'	RG-58A/U	Silver Plated PL259	16°	Crimp
MPMP	17'	RG-58/U	Silver Plated Teflon PL259	16°	Solder
MPMBN	17'	RG-58/U	BNC	16°	Crimp
MPMC	17'	RG-58/U	TNC	16°	Crimp
MPMNCP	17'	RG-58/U	N	16°	Crimp
MPMNSO	17'	RG-58/U	N	16°	Solder
MPMPL	17'	RG-58/U	Mini-UHF	16°	Crimp

Connector can be attached for an additional charge.



MPM



MPM26NC

TPM Series



1-1/8"-18 thread; trunk lid pivot mount (16° adjustment)

Model	Length of Coax	Coax	Connector	Type
TPM34	N/A	None	None	N/A
TPM-NC	17'	RG-58A/U	None	N/A
TPMC-NC	17'	RG-58/U	None	N/A
TPM	17'	RG-58A/U	Silver Plated PL259	Solder
TPMP	17'	RG-58/U	Silver Plated Teflon PL259	Solder
TPMBN	17'	RG-58/U	BNC	Crimp
TPMC	17'	RG-58/U	TNC	Crimp
TPMNCP	17'	RG-58/U	N	Crimp
TPMNSO	17'	RG-58/U	N	Solder
TPMPL	17'	RG-58/U	Mini-UHF	Crimp
TPMFPL	17'	White Teflon	Mini-UHF	Crimp

Connector can be attached for an additional charge.

LT Series



5/16"-24 thread stud mount; trunk lid mount

Model	Length of Coax	Coax	Connector	Type
LT5/16	None	N/A	None	N/A
LT-NC	17'	RG-58A/U	None	N/A
LTC-NC	17'	RG-58/U	None	N/A
LTP	17'	RG-58/U	Silver Plated Teflon PL259	Solder
LTLTP	17'	RG-8X	Silver Plated Teflon PL259	Solder
LT	17'	RG-58A/U	Silver Plated PL259	Solder
LTBN	17'	RG-58/U	BNC	Crimp
LTC	17'	RG-58/U	TNC	Crimp
LTLT	17'	RG-8X	TNC	Crimp
LTNCP	17'	RG-58/U	N	Crimp
LTNSO	17'	RG-58/U	N	Solder
LTPL	17'	RG-58/U	Mini-UHF	Crimp

Connector can be attached for an additional charge.

T Series

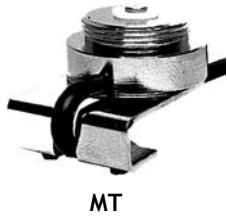
1-1/8"-18 thread mount; trunk lid mount

Model	Length of Coax	Coax	Connector	Type
TTT	N/A	None	None	N/A
T-NC	17'	RG-58A/U	None	N/A
TC-NC	17'	RG-58/U	None	N/A
TF-NC	17'	White Teflon	None	N/A
TLC-NC	17'	RG-8X	None	N/A
TST-NC	17'	YR29586-9	None	N/A
TBST-NC	17'	YR29586-10	None	N/A
T	17'	RG-58A/U	Silver Plated PL259	Solder
TCP	17'	RG-58A/U	Silver Plated PL259	Crimp
TF	17'	White Teflon	Silver Plated PL259	Crimp
TP	17'	RG-58/U	Silver Plated Teflon PL259	Solder
TFP	17'	White Teflon	Silver Plated Teflon PL259	Solder
TLP	17'	RG-8X	Silver Plated Teflon PL259	Solder
TBN	17'	RG-58/U	BNC	Crimp
TFBN	17'	White Teflon	BNC	Crimp
TLBN	17'	RG-8X	BNC	Crimp
TC	17'	RG-58/U	TNC	Crimp
TFC	17'	White Teflon	TNC	Crimp
TLC	17'	RG-8X	TNC	Crimp
TSTC	17'	YR29586-9	TNC	Crimp
TML195RPC	17'	Pro-Flex™ Plus 195	Reverse Polarity Male TNC	Crimp
TNCP	17'	RG-58/U	N	Crimp
TNSO	17'	RG-58/U	N	Solder
TFNCP	17'	White Teflon	N	Crimp
TLNCP	17'	RG-8X	N	Crimp
TLNSO	17'	RG-8X	N	Solder
TPL	17'	RG-58/U	Mini-UHF	Crimp
TFPL	17'	White Teflon	Mini-UHF	Crimp
TLPL	17'	RG-8X	Mini-UHF	Crimp
TBSTPL	17'	YR29586-10	Mini-UHF	Crimp
TFFME	17'	RG-58/U	FME*	Crimp
TMFME	17'	RG-58/U	FME*	Crimp
TML195FFME	17'	Pro-Flex™ Plus 195	Female FME*	Crimp
TML195MSMA	17'	Pro-Flex™ Plus 195	Male SMA	Crimp
TMSMA	17'	RG-58/U	Male SMA	Crimp



T

* Connector is installed on these mounts only. For all other mounts, connectors can be attached for an additional charge.



MT Series

Black/chrome 1-1/8"-18 thread; all metal trunk lid mount

Model	Length of Coax	Coax	Connector	Type
(B)MT-NC	17'	RG-58A/U	None	N/A
(B)MTC-NC	17'	RG-58/U	None	N/A
(B)MTFC-NC	17'	White Teflon	None	N/A
(B)MT	17'	RG-58A/U	Silver Plated PL259	Solder
(B)MTCP	17'	RG-58/U	Silver Plated Teflon PL259	Crimp
(B)MTP	17'	RG-58/U	Silver Plated Teflon PL259	Solder
(B)MTFP	17'	White Teflon	Silver Plated Teflon PL259	Solder
(B)MTBN	17'	RG-58/U	BNC	Crimp
(B)MTFBN	17'	White Teflon	BNC	Crimp
(B)MTC	17'	RG-58/U	TNC	Crimp
(B)MTFC	17'	White Teflon	TNC	Crimp
(B)MTSTC	17'	YR29586-9	TNC	Crimp
(B)MTNCP	17'	RG-58/U	N	Crimp
(B)MTNSO	17'	RG-58/U	N	Solder
(B)MTFNCP	17'	White Teflon	N	Crimp
(B)MTSTNCP	17'	YR29586-9	N	Crimp
(B)MTPL	17'	RG-58/U	Mini-UHF	Crimp
(B)MTFPL	17'	White Teflon	Mini-UHF	Crimp
(B)MTSTPL	17'	YR29586-9	Mini-UHF	Crimp

Prefix "B" indicates black. Connector can be attached for an additional charge.

L Series

3/8" or 3/4" hole; 5/16"-24 thread; stud mount

Model	Length of Coax	Coax	Connector	Type
L5/16	None	N/A	None	N/A
L-NC	17'	RG-58A/U	None	N/A
LC-NC	17'	RG-58/U	None	N/A
LLC-NC	17'	RG-8X	None	N/A
L	17'	RG-58A/U	Silver Plated PL259	Solder
LP	17'	RG-58/U	Silver Plated Teflon PL259	Solder
LLP	17'	RG-8X	Silver Plated Teflon PL259	Solder
LBN	17'	RG-58/U	BNC	Crimp
LLBN	17'	RG-8X	BNC	Crimp
LC	17'	RG-58/U	TNC	Crimp
LLC	17'	RG-8X	TNC	Crimp
LFFME	17'	RG-58A/U	Female FME*	Crimp
LNCP	17'	RG-58/U	N	Crimp
LNSO	17'	RG-58/U	N	Solder
LLNCP	17'	RG-8X	N	Crimp
LLNSO	17'	RG-8X	N	Solder
LPL	17'	RG-58/U	Mini-UHF	Crimp
LSTPL	17'	YR29586-9	Mini-UHF	Crimp
LLPL	17'	RG-8X	Mini-UHF	Crimp



L

* Connector is installed on these mounts only. For all other mounts, connectors can be attached for an additional charge.



X



XNGP

X Series

3/8" hole; 1-1/8"-18 thread; snap-in mount

Model	Length of Coax	Coax	Connector	Type
X38	None	N/A	None	N/A
X-NC	17'	RG-58A/U	None	N/A
X	17'	RG-58A/U	Silver Plated PL259	Solder
XPL	17'	RG-58/U	Mini-UHF	Crimp

Connectors can be attached for an additional charge.

XNGP Series

3/8" hole; 1-1/8"-18 thread; flange mount, no ground plane

Model	Length of Coax	Coax	Connector	Type
XNGP38	None	N/A	None	N/A
XNGP-NC	17'	RG-58A/U	None	N/A
XNGP	17'	RG-58A/U	Silver Plated PL259	Solder
XNGPCP	17'	RG-58A/U	Silver Plated PL259	Crimp
XNGPPL	17'	RG-58/U	Mini-UHF	Crimp

Connectors can be attached for an additional charge.



K57



KL768



K45



K44

Model	Description	Length of Coax	Coax	Connector
K45	3/8" Hole Snap-In Rooftop Mount Adapter Only for Rooftop Mounts	N/A	N/A	N/A
K57	3/8" Hole Snap-In Rooftop Mount for Standard Loaded Antennas	N/A	Sold Separately	None
KL768	3/8" Hole Snap In Mount with Low Profile Adapter	17'	RG-58/U	None

3/8" Snap-In Rooftop Mount for Quarter Wave Antennas

Model	Length of Coax	Coax	Connector
K44	N/A	Sold Separately	None

Connectors

Connectors for RG-58A/U, RG-58/U, RGU/400, YR29586-9, YR29586-10 and Pro-Flex™ Plus 195 coaxial cable

Model	Qty	Type	Attach
MBNC	1	BNC Male	Crimp
MCPL9	5	Silver Plated PL259 Male	Crimp
MFF58	1	FME Female	Crimp
MFME58	1	FME Male	Crimp
MMS58	1	SMA Male for RG-58/U	Crimp
MMSMART58	1	Male SMA Reverse Threaded for RG-58/U	Crimp
MMUF58	5	Mini-UHF Female	Crimp
MMUM58	5	Mini-UHF Male	Crimp
MN58	1	N Male	Solder
MN58CP	1	N Male	Crimp
MNF58CP	1	N Female Connector for RG-58/U	Crimp
MNFBH	1	N Female Bulkhead Connector for RG-58	Crimp
MPL9	5	Silver Plated PL259 Male with UG175/U	Solder
MPL9F	5	Silver Plated PL259 Male/Teflon	Crimp
MPL9TF	5	Silver Plated PL259 Male/Teflon	Solder
MRPBNC	1	Reverse Polarity BNC for RG-58	Crimp
MRPCM58	1	Reverse Polarity TNC Male for RG-58	Crimp
MSMARA58	1	R/A SMA Male Connector for RG-58/U	Crimp
MTNC	1	TNC Male	Crimp
MTNCF	1	TNC Male/Teflon	Crimp
MUHF	5	Mini-UHF Male	Crimp
PLUGAMFM	5	AM/FM Radio Plug	Solder
UG175/U	5	Reducer	N/A



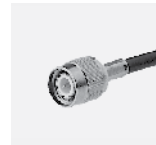
BNC Male



Mini-UHF



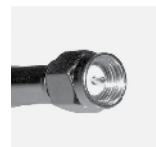
PL259



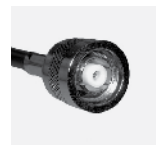
TNC Male



FME Male



SMA Male



Rev Pol TNC



Rev Pol BNC

Connectors for RG-8X (low-loss) and RG-8XW (low-loss white) coaxial cable

Model	Qty	Type	Attach
MBNCLL	1	BNC Male	Crimp
MCPL8X	5	PL-259 Male	Crimp
MLPL9	5	PL-259 Male	Crimp
MN8XF	1	N Female Jack for RG-8X	Crimp
MNLL	1	N Male	Crimp
MNSLL	1	N Male	Solder
MTNCLL	1	TNC Male	Crimp
MUHFL	5	Mini-UHF Male	Crimp
UG176/U	1	Reducer	N/A



BN



Mini-UHF



PL259



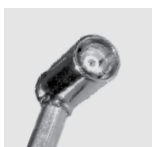
TN



N Female



SMB Jack



SMB Plug



N Female Jack

Connectors

Connectors for RG-213/U coaxial cable

Model	Qty	Type	Attach
MN213	1	N Male	Crimp
MN213F	5	N Female	Crimp
MPL9NR	5	PL259 Male/No Reducer	Solder

Connectors for RG-174/U and LMR100 cable

Model	Qty	Type	Attach
MBNC174	1	BNC Male	Crimp
MFF174	1	FME Female	Crimp
MFM174	1	FME Male	Crimp
MFSMA174	5	SMA Female	Crimp
MSM174	1	SMA Male	Crimp
MSMART	1	SMA Reverse Threaded Male	Crimp
MSMBRAJ174	1	SMB R/A Jack for RG-174	Crimp
MSMBRAP174	1	SMB R/A Plug for RG-174	Crimp
MTNC174	1	TNC Male	Crimp
MUHF174	5	Mini-UHF Male	Crimp

Connectors for White Teflon coaxial cable

Model	Qty	Type	Attach
MBNCF	1	BNC Male	Crimp
MNF	1	N Male	Crimp
MTNCF	1	TNC	Crimp

Connectors

Part #	Description	Cable Type
C-5010M	Mini-UHF male (crimp tool required) - 10 pack	RG-58/U and Pro-Flex™ Plus
C-5010T	TNC male (crimp tool required) - 10 pack	RG-58/U and Pro-Flex™ Plus
C-5010UM	Mini-UHF male adapter for SAP nipple connector - 10 pack	RG-58/U and Pro-Flex™ Plus
C-5010UT	TNC male adapter for SAP nipple connector - 10 pack	RG-58/U and Pro-Flex™ Plus



C-5010M



C-5010T



C-5010UM



C-5010UT

Coaxial Cable Specification Chart

Model	Cable Type	Inner Conductor	Outer Jacket	OD	Dielectric Material	Braid Type	Shield Coverage	Capacitance (pF/ft)	Attenuation** (dB/100 ft)				
									100 MHz	450 MHz	900 MHz	1.6 GHz	2.4 GHz
M58/100*	RG-58A/U	Stranded	Black PVC	0.195"	Solid Polyethylene	TC	96%	30.80	4.9	11.5	20	27	36
M58U/100*	RG-58/U	Solid	Black PVC	0.195"	Solid Polyethylene	TC	95%	28.50	4.5	10	16	22	28
MF/100*	Teflon ¹	Stranded	White Teflon	0.160"	White Teflon	SC	96%	28.50	3.8	8.5	13	20	25
MFL/100*	RG-U400 ²	Stranded	Brown Teflon	0.195"	White Teflon	SC	95%	29.00	3.1	8.1	12.3	21	27
M8X/100*	RG-8X	Solid	Black PVC	0.242"	Solid Polyethylene	TC	95%	33.50	2.8	6.5	11	18	25
M8XW/100*	RG-8XW	Solid	White PVC	0.242"	Solid Polyethylene	TC	95%	33.50	2.8	6.5	11	18	25
M213/100*	RG-213/U	Stranded	Black PVC	0.405"	Solid Polyethylene	BC	97%	30.80	2.2	4.7	8	13	17
M5801/100*	RG-58/U	Solid	White PVC	0.195"	FEP Teflon	BC	95%	29.20	5	9.9	15.4	24	30
M5802/100*	RG-58/U	Solid	Black PVC	0.195"	FEP Teflon	BC	95%	29.20	5	9.9	15.4	24	30
M174/100*	RG-174	Solid	Black PVC	0.11"	Solid Polyethylene	TC	90%	30.08	8.4	20	29.5	41	52

*Models indicate 100 feet of cable **Approximations used for gain comparison only

Impedance: 50 ohms
Notes: ¹ High temperature cable: -40°C to 85°C ² High temperature cable: -55°C to 85°C, M17/175-00001
Braid Type: TC = tinned copper SC = silver coated copper BC = bare copper
Velocity factor: Velocity factor/M7000 = 81% YR29586-9 and YR29586-10 = 69% All others = 66% typical

High Efficiency, Low Loss Coaxial Cable Specification Chart

Model	Cable Type	Inner Conductor	Outer Jacket	OD	Dielectric Material	Braid Type	Shield Coverage	Capacitance (pF/ft)	Attenuation** (dB/100 ft)					
									200 MHz	700 MHz	900 MHz	2.4 GHz	4.9 GHz	5.8 GHz
ML100A/100	RG-174	Solid BCCS	Black PVC	0.110"	Solid Polyethylene	TC	95%	30.8	10.4	20	22.8	39	58	64
ML400/100	RG-174	Solid BCCAI	Black PVC	0.405"	Foam Polyethylene	TC	95%	23.9	1.8	3.4	3.9	7	10	11
MPFP195/100 (Pro-Flex™ Plus 195)	RG-58/U	Solid BC	Black PVC	.195"	Solid Polyethylene	TC	95%	31	5.1	9.8	11.1	19	28	32
ML195W/100	RG-58/U	Solid BC	White PVC	.195"	Solid Polyethylene	TC	95%	31	5.1	9.8	11.1	19	28	32

Impedance: 50 ohms
Voltage Withstand: 1400 VDC (ML195); 500 VDC (ML100A); 2500 VDC (ML400)
Temperature rating: -40°C to 75°C (ML195); Installation: -40°C to 85°C; Storage: -94°C to 85°C; Operating: -94°C to 85°C (ML100A and ML400)
Braid Type: TC = Tinned Copper
Velocity of Propagation: 66% (ML195); 66% (ML100A); 85% (ML400) Typical
Minimum Bend Radius: 0.5" installation, 2.0" repeated (ML195); 0.25" (ML100A); 1.0" (ML400)

Mobile Mount Adapters

Model	Description
MFUMA	FME, Male to Mini-UHF Male Adapter
MFNMA	FME, Male to Type N Male Adapter
MFMPMA	FME, Male to PL-259 Male Adapter
MFMTMA	FME, Male to TNC Male Adapter
MNFA	M Mount to N Female Adapter
LSP	3/4 to 3/8 hole adapter for L mounts, package of 6
MLM	LM/Maxrad adapter
MNFA	M mount to N female adapter
MSNP	Snap-in Maxrad adapter
UG363/U	Bulk adapter, UHF female
K27	Converts Motorola® rooftop mount TAD-6111A to accept ASPS177 standard A/S rooftop coil.
K43	Set screw adapter for ASPC201 rooftop antennas with 0.046" diameter whip.
KR43	Set screw adapter for ASPC201 rooftop antennas with 0.072" diameter whip.
K50	Whip adapters for ASPS177 based loaded antenna, furnished with set screw, stud, washer and allen wrench.



MNFA



MLMC



MLM



MSNP



K27



K50



K43



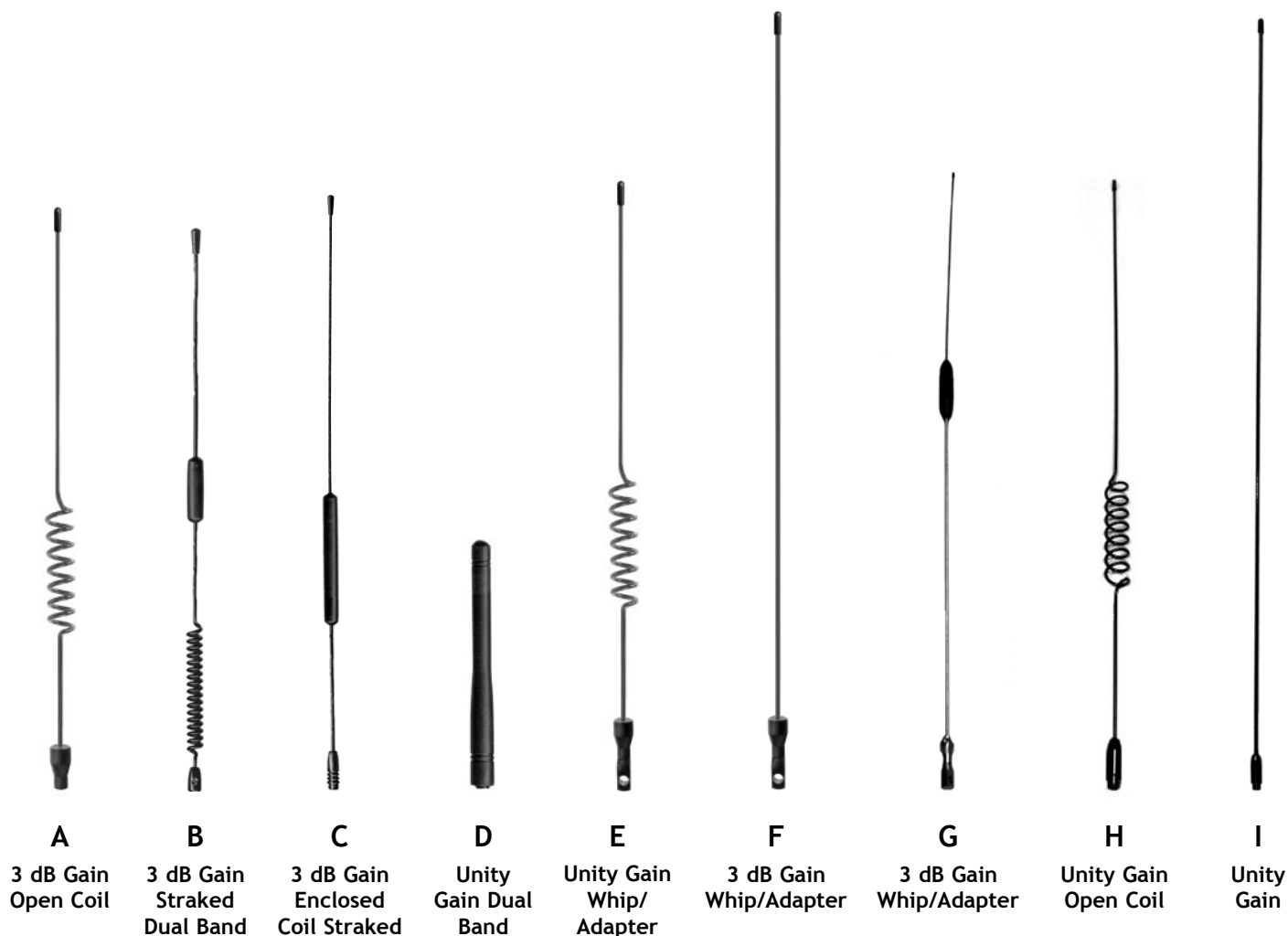
KR43



“On-Glass”® Whips and Adapters

“On-Glass”® Replacement Whips

Model Series	Part Number	Whip Style	Frequency
APD873.3	KD873Z	A	Cellular
APDM928	KDM928Z	B	Cellular/PCS
APD876.3	KD876Z	C	Cellular
APDM928.1	KDM928.1Z	D	Cellular/PCS
AP455	K455Z	E	440-570 MHz
AP454.3	K454.3Z	F	410-512 MHz
AP454.5	K454.5Z	G	410-512 MHz
APR153	K153Z, KAVR153Z	H	150-174 MHz
APR143	KAVR143Z	H	138-150 MHz
APR152.3	KAVR152.3Z	I	150-174 MHz
APS151	KAVS151Z	I	144-174 MHz



Mobile Mobile Shock Springs, Antenna Springs and Coils

Mobile Shock Springs

Model	Description
BMAXS	5/16-24, Max base spring, black
MAXS	5/16-24, Max base spring, chrome
MAXSHD	5/16-24, Max base heavy duty spring, chrome
MQS	Shock spring for MLB3001
MS	Chrome coil spring
MS450	UHF wideband spring assembly
MS580	VHF wideband spring assembly
MS800	800-900 MHz, chrome coil spring
MSHD	Chrome coil spring for .125" whip



Mobile Antenna Springs and Coils for Antenna Specialists®

Part Number	Description	Antenna Series
K223	Replacement spring with 1/4"-20 female bottom thread. Accepts 0.125" diameter whips.	ASPR7495
KR723	DURA-FLEX® noiseless elastomer spring for UHF low profile gain antennas with 1/4"-20 female bottom thread. Accepts 0.125" diameter whips.	UHF low profile gain antennas
KR726	DURA-FLEX® noiseless elastomer replacement spring for VHF, low profile antennas with 1/4"-20 female bottom thread. Accepts 0.100" diameter whips.	ASP7455, ASPH7455, ASP7795



Replacement Rods

Antenna Model	Replacement Rod #	Antenna Model	Replacement Rod #
ASP1815	KD1810Z	BMUF4325	BMUR4325
ASP358	K-41	BMUF4500	BMAT4500
ASP7455	KR731	BMUF4503	BMLW15.5
ASP7655	KR724	BMUF4525	BMUR4525
ASP7795	KRL724	BMUF4600	BMUR4600
ASPA7655	KRA724	BMUF4700	BMUR4700
ASPB7655	KRB7242	BMUF4700	BMAT4700
ASPC201	K42	BMUF4703	BMLW15.5
ASPC201	K51	BMUF4725	BMUR4725
ASPC7655	KRC7243	BMUF490	BMUR490
ASPD1865	KD1860Z	BMUF4900	BMAT4900
ASPD1894	KD1894Z	BMUF4903	BMLW15.5
ASPD1965	KDM1960Z	BMUF4925	BMUR4925
ASPD1913U	KDM913Z	BMUF8000	BMAT8000
ASPE7655	KRE724	BMUF8023	BMUR8023
ASPR7495	K7490Z	BMUF8035	BMUR8035
ASPR795	K790Z	BMUF8040	BMUR8040
APR852.3	KR852Z	BMUF8043	BMUR8043
ASPRDM1994	KRDM1994Z	BMUF8045	BMUR8045
APRG852.3	KG852Z	BMUF8063	BMUR8063
ASPS177	K-41	BMUF8073	BMUR8073
BMAX12705	BMUX12705	BMUF8083	BMUR8083
BMAX140D	BMUX140D	BMUF8125	BMUR8125
BMAX150/450	BMUX150/450	BMUF8133	BMUR8133
BMAX150D	BMUX150D	BMUF8135	BMUR8135
BMAX440D	BMUX440D	BMUF8143	BMUR8143
BMAX450D	BMUX450D	BMUF8253	BMUR8253
BMAX8033	BMUX8033	BMUF8345	BMUR8345
BMAX8055	BMUX8055	BMUF8353	BMUR8353
BMAX8135	BMUX8135	BMUF8355	BMUR8355
BMAX824/1850	BMUX824/1850	BMUF8363	BMUR8363
BMAX8355	BMUX8355	BMUF8400	BMUR8400
BMAX8375	BMUX8375	BMUF8405	BMUR8405
BMAX9033	BMUX9033	BMUF8455	BMUR8455
BMAX9053	BMUX9053	BMUF8963	BMUR8963
BMAX9075	BMUX9075	BMUF8965	BMUR8965
BMAX9085	BMUX9085	BMUF8975	BMUR8975
BMAX-HAM	BMUXHAM	BMUF8983	BMUR8983
BMAXMFT	BMLWWBQ	BMUF8993	BMUR8993
BMAXMFTHD	BMLWWBQHD	BMUF9000	BMAT9000
BMAXSCAN1000	BMUXSCAN	BMUF9040	BMUR9040
BMFT120	BMFT1/4	BMUF9083	BMUR9083
BMHB1360	BMAT1360	BMUF9105	BMUR9105
BMHB1440	BMAT1440	BMUF9115	BMUR9115
BMHB1520	BMAT1520	BMUFL4065	BMLW4065
BMHB1620	BMAT1620	BMUFL4305	BMLW4305
BMHB2002	BMLW35	BMUFL4505	BMLW4505
BMHB2200	BMAT2200	BMUFL4705	BMLW4705
BMHBL118	BMLW24	BMUFL4905	BMLW4905
BMHBL154	BMATH132	BMUFL800	BMLW800
BMMC120	BMATH132	BMUFL8005	BMLW8005
BMMC150	BMATH	BMUFL8033	BMLW8033
BMMC150132	BMATH132	BMUFL8053	BMLW8053
BMMC200	BMATH	BMUFL8105	BMLW8105
BMMC380	BMUR380	BMUFL8305	BMLW8305
BMMC450	BMUR450	BMUFL8325	BMLW8325
BMMC150	BMATH	BMUFL9033	BMLW9033
BMMC150132	BMATH132	BMUFL9053	BMLW9053
BMMC1200	BMATH	BMUFL9075	BMLW9075
BMUF 4300	BMAT4300	BMUFL9085	BMLW9085
BMUF406	BMUR406	BMUX140/440	BMUX140/440
BMUF4060	BMAT4060	BMWB1320	BMLW21
BMUF4085	BMUR4085	MAX140/440	MUX140/440
BMUF430	BMUR430	MAX140D	MUX140D
BMUF4303	BMLW15.5	MAX150	MUX150D
		MAX150/450	MUX150/450
		MAX440D	MUX440D
		MAX450D	MUX450D
		MAX455	BMUX455
		MAX8033	MUX8033
		MAX8053	MUX8053
		MAX8053	BMUX8053
		MAX8135	MUX8135
		MAX8355	MUX8355
		MAX8375	MUX8375
		MAX9033	MUX9033
		MAX9053	MUX9053
		MAX9075	MUX9075
		MAX9085	MUX9085
		MAX-HAM	MUXHAM
		MAXMFT	MLWWBQ
		MAXSCAN1000	MUXSCAN
		MAZ8055	MUX8055
		MBSUHF	MLW22.5
		MHB1360	MAT1360
		MHB1440	MAT1440
		MHB1520	MAT1520
		MHB1620	MAT1620
		MHB2002	MLW35
		MHB2200	MAT2200
		MHB5800	MATH
		MHB5800132	MATH132
		MHB5800HD	MATHHD
		MHB5802	MATH
		MHB5802132	MATH132
		MHB5812	MATH132
		MHB5820	MATH
		MHB5825	MATH
		MHBDC5800	MATH
		MHBDC5800132	MATH132
		MHBL118	MLW24
		MHBL54	MATH132
		MHBL88	MLW49
		MLB2700	MATH
		MLB3000	MATH
		MLB3001	MAR96F
		MLB3001	MAR96F
		MLB3400	MATH
		MLB4000	MATH
		MLB4700	MATH
		MLB6600	MATH
		MLBDC2700	MATH
		MLBDC3000	MATH
		MLBDC3400	MATH
		MLBDC3700	MATH
		MLBDC4000	MATH
		MLBDC4400	MATH
		MLBDC4500	MATH
		MLBDC4700	MATH
		MLBDC5000	MATH
		MMC120	MATH132
		MMC150	MATH
		MMC150132	MATH132
		MMC200	MATH
		MMCL150	MATH
		MMCL150132	MATH132
		MMCL200	MATH
		MUF3505	MUB350
		MUF4060	MAT4060
		MUF4062	MLW11

Mobile Replacement Whips, Rods, Adapters, Connectors

Replacement Rods

MUF4065, MAX405	MUB406
MUF4065NGP	MUB406NGP
MAX430	MUB430
MAX450	MUB450
MAX470	MUB470
MUF4300	MAT4300
MUF4302	MLW11
MUF4303	MLW15.5
MUF4305	MUB430
MUF4305NGP	MUB430NGP
MUF4500	MAT4500
MUF4502	MLW11
MUF4503	MLW15.5
MUF4505	MUB450
MUF4505NGP	MUB450NGP
MUF4700	MAT4700
MUF4702	MLW11
MUF4703	MLW15.5
MUF4705	MUB470
MUF4705NGP	MUB470NGP
MUF4900	MAT4900
MUF4902	MLW11
MUF4903	MLW15.5
MUF4905	MUB490
MUF4905NGP	MUB490NGP
MUF8000	MAT8000
MUF8003	MUB8003
MUF8003NGP	MUB8003NGP
MUF8003NGPS	MUB8003NGPS
MUF8003S	MUB8003S
MUF8005	MUB8005
MUF8005NGP	MUB8005NGP
MUF8005NGPS	MUB8005NGPS
MUF8005S	MUB8005S
MUF8103	MUB8103

Antenna Model	Replacement Rod #
MUF8103NGP	MUB8103NGP
MUF8103NGPS	MUB8103NGPS
MUF8103S	MUB8103S
MUF8105	MUB8105
MUF8105NGP	MUB8105NGP
MUF8105NGPS	MUB8105NGPS
MUF8105S	MUB8105S
MUF8303NGP	MUB8303NGP
MUF8303NGPS	MUB8303NGPS
MUF8305	MUB8305
MUF8305NGP	MUB8305NGP
MUF8305NGPS	MUB8305NGPS
MUF8305S	MUB8305S
MUF8323NGP	MUB8323NGP
MUF8323NGPS	MUB8323NGPS
MUF8325	MUB8325
MUF8325NGP	MUB8325NGP
MUF8325NGPS	MUB8325NGPS
MUF8325S	MUB8325S
MUF8350NGP	MUB8350NGP
MUF9000	MAT9000
MUF9000NGP	MUB9000NGP
MUF9003	MUB9003
MUF9003NGP	MUB9003NGP
MUF9003NGPS	MUB9003NGPS
MUF9003S	MUB9003S
MUF9025	MUB9025
MUF9025NGP	MUB9025NGP
MUF9025NGPS	MUB9025NGPS
MUF9025S	MUB9025S
MUF9035	MUB9035
MUF9035NGP	MUB9035NGP
MUF9035NGPS	MUB9035NGPS
MUF9035S	MUB9035S
MUF9043	BMUR9043

Antenna Model	Replacement Rod #
MUF9103	MUB9103
MUF9103NGP	MUB9103NGP
MUF9103NGPS	MUB9103NGPS
MUF9103S	MUB9103S
MUF9113	BMUR9113
MUFL4065	MLW4065
MUFL4305	MLW4305
MUFL4505	MLW4505
MUFL4705	MLW4705
MUFL4905	MLW4905
MUFL800	MLW800
MUFL8005	MLW8005
MUFL8033	MLW8033
MUFL8053	MLW8053
MUFL8105	MLW8105
MUFL8305	MLW8305
MUFL8325	MLW8325
MUFL9033	MLW9033
MUFL9053	MLW9053
MUFL9075	MLW9075
MUFL9085	MLW9085
MWB1320	MLW21
MWBDC2700	MATH
MWBDC3000	MATH
MWBDC3400	MATH
MWBDC4000	MATH
MWBDC4400	MATH
MWBDC4700	MATH
MWU4002	MWUR4002
MWU4065	MWUR4065
MWU4205	MWUR4205
MWU4505	MWUR4505
MWU4705	MWUR4705
MWV1322	MWVR1322
MWV1322HD	MLW21HD

Replacement Coils

Antenna Model	Replacement Coil #	Antenna Model	Replacement Coil #
ASP358	K48	MUF8105NGP	MAT8105NGP
ASP7455	K725	MUF8105NGPS	MAT8105NGPS
ASP7655	K722	MUF8150NGP	MAT8150NGP
ASP7655	KT722	MUF8150NGPS	MAT8150NGPS
ASPR0495	K729	MUF8303NGP	MAT8303NGP
ASPR795	K729	MUF8303NGPS	MAT8303NGPS
ASPS177	K48	MUF8305NGP	MAT8305NGP
BMLB3001	BMAT3001	MUF8305NGPS	MAT8305NGPS
MDB1444	MATMDB144	MUF8323NGP	MAT8323NGP
MDB1444S	MATMDB144S	MUF8323NGPS	MAT8323NGPS
MDB1545	MATMDB154	MUF8325	MAT8325
MDB1545S	MATMDB154S	MUF8325NGP	MAT8325NGP
MHB2002	MAT202	MUF8325NGPS	MAT8325NGPS
MHB2002S	MAT202S	MUF8350NGP	MAT8350NGP
MHB2252	MAT222	MUF8350NGPS	MAT8350NGPS
MHB2252S	MAT222S	MUF9000NGP	MAT9000NGP
MHB5800	MAT58	MUF9003	MAT9003
MHB5800HD	MAT58HD	MUF9003NGP	MAT9003NGP
MHB5802	MAT582	MUF9003NGPS	MAT9003NGPS
MHB5812S	MAT512S	MUF9025	MAT9025
MHB5820	MAT22	MUF9025NGP	MAT9025NGP
MHB5850	MAT585	MUF9025NGPS	MAT9025NGPS
MHBDC5800	MAT58DC	MUF9035	MAT9035
MHBDC5800-132	MAT58DC	MUF9035NGP	MAT9035NGP
MLB2700	MAT27	MUF9035NGPS	MAT9035NGPS
MLB3000	MAT30	MUF9103NGP	MAT9103NGP
MLB3001	MAT3001	MUF9355	MAT900
MLB3400	MAT34	MWB1320	MATMWB
MLB4000	MAT40	MWB4505	MATWB450
MLB4700	MAT47	MWB4705	MATWB470
MLB6600	MAT66	MWB4905	MATWB490
MLBDC2700	MAT27DC	MWB5803	MATWB583
MLBDC3000	MAT30DC	MWB5803	MATWB583132
MLBDC3400	MAT34DC	MWB5803-144	MATWB583144
MLBDC3700	MAT37DC	MWBDC2700	MATWB27DC
MLBDC4000	MAT40DC	MWBDC3000	MATWB30DC
MLBDC4500	MAT45DC	MWBDC4000	MATWB40DC
MLBDC4700	MAT47DC	MWBDC4400	MATWB44DC
MLBDC5000	MAT50DC	MWBDC4700	MATWB47DC
MONR33	K729	MWV1322	MATMWV
MUF4062	MAT402	MWV1322HD	MATMWVHD
MUF4062S	MAT402S		
MUF4063	MAT403		
MUF4063S	MAT403S		
MUF4065	MAT406		
MUF4065NGP	MAT406NGP		
MUF4065NGPS	MAT406NGPS		
MUF4302	MAT432		
MUF4302S	MAT432S		
MUF4303	MAT433		
MUF4303S	MAT433S		
MUF4305	MAT430		
MUF4305NGPS	MAT430NGPS		
MUF4502	MAT452		
MUF4502S	MAT452S		
MUF4503	MAT453		
MUF4503	MAT453S		
MUF4505	MAT450		
MUF4505NGP	MAT450NGP		
MUF4505NGPS	MAT450NGPS		
MUF4702	MAT472		
MUF4702S	MAT472S		
MUF4703	MAT473		
MUF4703	MAT473S		
MUF4705	MAT470		
MUF4705NGP	MAT470NGP		
MUF4705NGPS	MAT470NGPS		
MUF4902	MAT492		
MUF4902S	MAT492S		
MUF4903	MAT493		
MUF4903	MAT493S		
MUF4905	MAT490		
MUF4905NGP	MAT490NGP		
MUF4905NGPS	MAT490NGPS		
MUF8003	MAT8003		
MUF8003NGP	MAT8003NGP		
MUF8003NGPS	MAT8003NGPS		
MUF8005	MAT8005		
MUF8005NGP	MAT8005NGP		
MUF8005NGPS	MAT8005NGPS		
MUF8103	MAT8103		
MUF8103NGP	MAT8103NGP		
MUF8103NGPS	MAT8103NGPS		
MUF8105	MAT8105		

Miscellaneous Mobile Accessories

Model	Description
BHB	Hinged bracket, black
BMAB	Field tunable rod ball, black
BMLRF	5/16"-24 ferrule, .062" black
BMLRF100	5/16"-24 ferrule, .100" black
BMMB34	3/4" mirror mount, black
BMMB38	3/8" mirror mount, black
BMN	1/4 wave mounting nut, black
BNUT	3/4" brass nut
BNUT38	3/8" brass nut
BNUTTPM	Nut/adaptor for 3/8" thick panel mount with O ring
BTGB34	3/4" "L" bracket, black
BTGB38	3/8" "L" bracket, black
CNUT	1/4 wave chrome nut
HB	Hinged bracket, chrome
M832	8-32 x 3/16 set-screw, package of 12
MASP	3/4":3/8" adapter spacer, package of 6
MAB	Field tunable rod ball
MANUT	Nut, O ring for 3/8":3/4" mount
MARF	Ferrule for MLB3001
MAX	Max Base, contact washer
MB1	Whip vibration damper
MGST	Load coil washer, package of 3
MHS3001	Ball to spring assembly screw
MLNUT	LK, nut, O ring for 5/16" mount
MLRF	5/16"-24 ferrule for .062" rod, chrome
MLRF100	5/16"-24 ferrule for .100" rod, chrome
MLRF125	5/16"-24 ferrule for .125" rod, chrome
MMB34	3/4" mirror mount, chrome
MMB38	3/8" mirror mount, chrome
MMGSK	Seal gaskets, fit around 3/4" mount nut, package of 6
MO32	10-32 x 3/16 set-screw, package of 12
MO32B	10-32 x 3/16 set-screw, black, package of 12
MRUBBERBOOT	Mag base rubber boot for 3-1/4" diameter magnetic mount
MVSWP	Moisture/vapor barrier wrap, 3' x 50' L x 1/16 T, black
PCR	Pivot mount contact replacement - pin and insulator



BMLRF100



BMN



BTGB34



MMB38



MAB



BMMB38



MB1

Miscellaneous Mobile Accessories

Part Number	Description
K34	3.75" (95.2 mm) diameter rubber plug for covering 1-5/16" (33.3 mm) hole after antenna removal.
K35/25	1.5" (38.1 mm) diameter rubber plug for covering 3/4" (19.1 mm) hole after antenna removal (package of 25).
K37/25	1.25" (31.8 mm) diameter rubber plug for covering 3/8" (9.5 mm) hole after antenna removal (package of 25).
K39/25	1.5" (38.1 mm) diameter rubber plug for covering 7/8" (22.2 mm) hole after antenna removal (package of 25).
K67	Ground plane kit for fiberglass-bodied vehicles. Complete with instructions and sufficient adhesive backed foil for one lowband/VHF or six UHF ground planes (3" x 44'). Includes metal clips for circuit continuity.
K115	Handy clip for quick-action fastening down of long whips when not in use. Attaches with single clamp to gutter; no hole in vehicle. Durable plastic insulator.
K332	Ground plane disk provides ground plane for fiberglass-bodied vehicles.
K66NUT	Nut and O-ring for K66 series mounts.



K34



K35/25



K37/25



K39/25



K115 Gutter Clip



K332 Ground Plane Disk



K67 Ground Plane Kit

Miscellaneous Mobile Accessories

Model	Description
BMGP5375	Ground plane, black, 5/8" mount, 3.75" OD
MGP5375	Ground plane, brass, 5/8" mount, 3.75" OD
MGP5450	Ground plane, brass, 5/8" mount, 4.50" OD
MGP6375	Ground plane, brass, 3/4" mount, 3.75" OD
MIC	Coaxial cable insulator cover for RG-58/U, RG-58A/U, ML195, RG-U400, M5801 and M5802
MOST	#10-5/8 self-tap screw, package of 12
MOTL	10-32 x 5/16 stainless steel set screw, package of 12
MPMGSK	Pivot and trunk pivot mount seal, package of 3
MRC	Chrome rain cap
MS32	Spring cap screw, package of 6
MTLL	3/8" hole trunk lid mount cover for T style mounts
MTPMNUT	Brass nut and O ring for MTPM800
MXGSK	3/8" snap mount, washer, package of 6
NGPGSK	NGP mount seal, package of 3
ORNG	O ring for 3/4" and 3/8" mounts, package of 6 (all permanent mounts)
PL34	3/4" hole plug, package of 6
PL38	3/8" hole plug, package of 6
TGB34	3/4" hole "L" bracket, chrome
TGB38	3/8" hole "L" bracket, chrome
TGBXL34	3/4" hole "L" bracket, extra long, chrome
TLB	Trunk lid bracket only
UG175/U	UG175/U reducer, package of 5
UG176/U	UG176/U reducer, package of 5
XCR	Contact replacement kit for 3/8 snap-in mount
XNUT	3/8" snap-in brass nut
XNGP800MR	800 MHz, XNGP mirror mount



NSPGSK



XCR



PL34



UG175/U



TGB34



XNGP800MR

Tools

Model	Description
ECT	Economy crimp tool
MARC2	Antenna rod cutter for up to 0.157" OD rods
MSB34	Replacement blade 3/4" saw
MSC58	Mini stripper #8300
MWT	Spanner/wrench tool



Recommended Connector Cavity Size

Cable	Jaw Set	BNC		Mini-UHF		N		PL-259			SMA		TNC	
		Sleeve	Pin	Sleeve	Pin	Sleeve	Pin	Lg End Sleeve	Sm End Sleeve	Pin	Sleeve	Pin	Sleeve	Pin
RG-58A/U	DCTJ58	0.213	0.068	0.213	0.068	0.213	0.068	0.255	0.213	0.068	0.213	0.068	0.213	0.068
RG-58/U	DCTJ58	0.213	0.068	0.213	0.068	0.213	0.068	0.255	0.213	0.068	0.213	0.068	0.213	0.068
RG-8X	DCTJ58	0.255	0.068	0.255	0.068	0.255	0.068	0.255		0.068	0.213	0.068	0.255	0.068
RG-174	DCTJ174	0.178	0.068	0.178	0.068	0.178	0.068	Not Available			0.178	0.068	0.178	0.068
RG-213	DCTJ213	Not Available		Not Available		0.412	0.092	0.412		0.068	Not Available		Not Available	
RGU-400	DCTJ58	0.213	0.068	0.213	0.068	0.213	0.068	0.255	0.213	0.068	0.213	0.068	0.213	0.068
YR-29586	DCTJ58	0.213	0.068	0.213	0.068	0.213	0.068	0.255	0.213	0.068	0.213	0.068	0.213	0.068
YR-40093	DCTJ174	0.178	0.068	0.178	0.068	0.178	0.068	Not Available			0.178	0.068	0.178	0.068
White Teflon	DCTJ174	0.213	0.068	0.213	0.068	0.213	0.068	0.255	0.213	0.068	0.213	0.068	0.213	0.068
ML100A/100	DCTJ174	0.178	0.068	0.178	0.068	0.178	0.068	Not Available			0.178	0.068	0.178	0.068
ML195/100	DCTJ58	0.213	0.068	0.213	0.068	0.213	0.068	0.255	0.213	0.068	0.213	0.068	0.213	0.068



IN-BUILDING ANTENNAS

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MPAMB Series Portable Omnidirectional Antennas

The MPAMB portable antennas are designed for indoor wireless applications requiring multiple band coverage. Each rugged antenna features a compact “blade” style design and 0-90° articulating knuckle. A no knuckle model is also available.

Features

- Multi-band performance.
- Ground plane independent design provides added installation flexibility.
- Rugged polycarbonate housing provides added durability for use in demanding wireless environments.
- Articulating knuckle provides 0°-90° pivot and 180° swivel movement allowing vertical orientation of the antenna, regardless of the orientation or position of the wireless device. (All models, except MPAMB806217ONKMSMA.)

Electrical Specifications

Model	Frequency Range	Gain
MPAMB8062170	806-960 MHz / 1710-2170 MHz	0 dBi (all frequencies)
MPAMB806217ONKMSMA	806-960 MHz / 1710-2170 MHz	0 dBi (all frequencies)
MPAMB24495804	2.4-2.5 GHz / 4.94 - 5.85 GHz	2.14 dBi / 4 dBi
MPAMB515804	5.15 - 5.85 GHz	3 dBi (all frequencies)

Mechanical Specifications

Model	Antenna Height	Temperature Range	Knuckle Movement
MPAMB8062170	7-5/8" (19.4 cm)	-30°C to +70°C	180° swivel, 0°-90° knuckle
MPAMB806217ONKMSMA	6.5" (16.5 cm)	-40°C to +85°C	n/a
MPAMB24495804	6" (15.2 cm)	-40°C to +85°C	180° swivel, 0°-90° knuckle
MPAMB515804	5.3" (13.4 cm)	-40°C to +85°C	180° swivel, 0°-90° knuckle



MPAMB series with knuckle



MPAMB806217ONK

MAXRAD

Technical Data

Maximum Power: 5 watts
Polarization: Vertical, linear
Nominal Impedance: 50 ohms
VSWR: < 2.0:1
Connector Type: TNC male (MPAMB8062170 only) Male SMA (MPAMB806217ONKMSMA only) Reverse Polarity TNC (All other models)

For detailed specifications, visit <http://antenna.pctel.com>.


MAXRAD

Portable Antennas for Data Transfer Applications

These portable rubber duck antennas are designed to cover multiple data frequencies, including 902-928 MHz ISM, 2400-2483.5 MHz and 5725-5825 MHz WiFi. Their rugged, flexible design makes them suitable for use in a wide variety of applications, including office LAN environments, factory floors, remote telemetry and other harsh environments.

Features

- Ground plane independent, half-wave coaxial dipole design. Provides improved antenna performance, higher gain and installation flexibility.
- Flexible design provides added durability that allows use in demanding wireless environments.
- Articulating knuckle provides 0°-90° pivot and 180° swivel movement allowing vertical orientation of the antenna, regardless of the orientation or position of the wireless device. (All models except MEXC902SM, MEXE902SM).

Connector Options:	Male SMA	Reverse Threaded Male SMA	Male TNC	Reverse Polarity TNC Plug	Reverse Polarity Male SMA Plug	BNC Plug
MEXC902SM	X					
MEXE902SM	X					
MHWS2400BN						X
MHWS2400C			X			
MHWS2400MSMA	X					
MHWS2400MSMARP					X	
MHWS2400MSMART		X				
MHWS2400MTNCRP				X		

Technical Data

General Specifications: Portable Antennas
Special Features: 360° swivel, 0°-90° knuckle
Maximum Power: 50 watts
Polarization: Vertical, linear
Nominal Impedance: 50 ohms
VSWR at Resonance: < 1.5:1
Wave Length: 1/2 wave 1/4 wave (MEXC902SM only)
Connector Type: See Mechanical Specifications

For detailed specifications, visit <http://antenna.pctel.com>.

Antenna Electrical Specifications

Model	Frequency Range	Factory Tuned Frequency	Gain
MEXC902SM	902-960 MHz	915 MHz	Unity
MEXE902SM	902-960 MHz	915 MHz	2.0 dBi
MHWS2400BN	2400-2483.5 MHz	2450 MHz	2.0 dBi
MHWS2400C	2400-2483.5 MHz	2450 MHz	2.0 dBi
MHWS2400MSMA	2400-2483.5 MHz	2450 MHz	2.0 dBi
MHWS2400MSMARP	2400-2483.5 MHz	2450 MHz	2.0 dBi
MHWS2400MSMART	2400-2483.5 MHz	2450 MHz	2.0 dBi
MHWS2400MTNCRP	2400-2483.5 MHz	2450 MHz	2.0 dBi

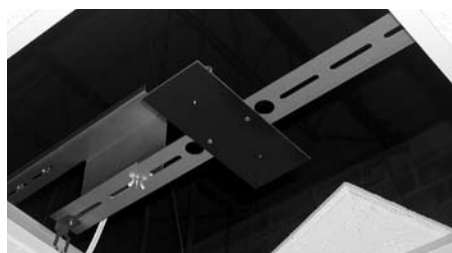
Mechanical Specifications

Model	Connector Type	Antenna Height	Temperature Range
MEXC902SM	Male SMA	4.0" (101.6 mm)	-40°C to +85°C
MEXE902SM	Male SMA	9.5" (241.3 mm)	-40°C to +85°C
MHWS2400BN	Male BNC	7.0" (177.8 mm)	-40°C to +85°C
MHWS2400C	Male TNC	7.0" (177.8 mm)	-40°C to +85°C
MHWS2400MSMA	Male SMA	4.5" (114.3 mm)	-40°C to +85°C
MHWS2400MSMARP	Reverse Polarity SMA Plug	4.5" (114.3 mm)	-40°C to +85°C
MHWS2400MSMART	Reverse Threaded SMA Plug	4.5" (114.3 mm)	-40°C to +85°C
MHWS2400MTNCRP	Reverse Polarity TNC Plug	5.7" (144.8 mm)	-40°C to +85°C

Ceiling Mount Omnidirectional Antennas



UFDD24580303PT



UFODAP1200 installed above ceiling



Technical Data

Maximum Power Input: 25 watts 20 watts (UFOD24003PT only)
Polarization: Vertical, linear
Nominal Impedance: 50 ohms
VSWR: < 2.0:1
Radome Housing: No radome
Mounting Method: Adjustable mounting bracket for suspended above ceiling installations (sold separately as part #MACM)
Cable: Four 3 ft Plenum rated RG-58/U (UFDD24580303PT only) Two 3 ft Plenum RG-58/U (UFODAP1200 and UFOD24003)
Connector Options: (add connector part number after the PT prefix) Example: UFOD24003PTNF (model UFOD24003 with N, female connector) N female (part #NF) Reverse Polarity TNC (part #RPTNC) Reverse Polarity BNC (part #RPBN) TNC (part #C)

For detailed specifications, visit <http://antenna.pctel.com>.

Above Ceiling Mount Diversity Omni Antennas

These ultra-flat dual band antennas are designed for above ceiling mount spatial diversity installations. They are terminated with 3 ft. Plenum rated pigtailed cables that can be fitted with various types of connectors. An above ceiling mount MACM (sold separately) is designed to keep the antenna out-of-sight.

Features

- Efficient omnidirectional diversity performance. Provides the excellent performance of two or four MAXRAD omnidirectional antennas in a single low profile design.
- Above ceiling mount (sold separately) makes antenna invisible to occupied areas.
- Utilizes UL94-V0 materials that provide UL's high flame retardant ratings for maximum placement flexibility. Meets stringent building codes.
- Plenum rated cable can be installed in many indoor mounting locations.

Antenna Electrical Specifications

Model	Frequency Ranges	Nominal Gain	Isolation Between Antennas	Horizontal Beamwidth	Vertical Beamwidth
UFOD24003PT	2400-2500 MHz	3 dBi	> 25 dB	360°	55°
UFODAP1200*	2400-2500 MHz	3 dBi	> 25 dB	360°	55°
UFDD24580303PT	2.4-2.5 GHz 4.9-5.9 GHz	3 dBi 3 dBi	> 25 dB > 25 dB	360° 360°	55° 40°

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Temperature Range
UFOD24003PT	5" L x 10" W x 0.12" H (12.7 x 25.4 x 0.32 cm)	0.5 lbs (0.23 kg)	-40°C to +70°C
UFODAP1200*	36" L x 9" W x 9" H (assembled) 26.5" L x 8.5" W x 3" H (shipped)	3.5 lbs (1.59 kg)	-40°C to +70°C
UFDD24580303PT	9" L x 9" W x 1/8" D	0.75 lbs	-40°C to +70°C

* This model includes MACMAP above ceiling bracket for Cisco AP1200 access points.

Ceiling Mount Omnidirectional Antennas

Ceiling Mount Omnidirectional Diversity Antenna

The MCD2400PT combines two flat ceiling mount omnidirectional antennas in a single housing for efficient spatial diversity installations. This antenna is designed to cover frequencies from 2400 to 2485 MHz with a VSWR of less than 1.5:1 and an isolation between two elements of more than 20 dB. A dual stud drop ceiling mount makes for effortless installation. The antenna includes pigtails that can be terminated with various types of connector options.

Features

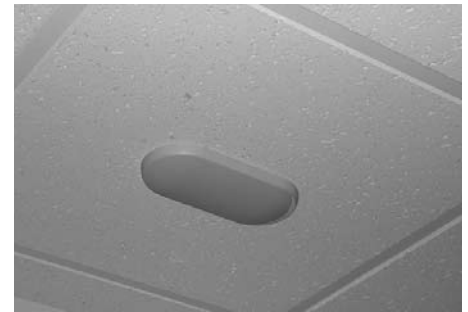
- Efficient omnidirectional diversity performance. Provides the excellent performance of two omnidirectional antennas in a single low profile housing.
- Attractive, low profile housing. Blends well in office environments and other locations where aesthetic considerations are important.
- UL listed materials and cable. Meet strict safety specifications.
- Dual stud drop ceiling mount. Easy to install on standard ceiling tiles or solid ceiling surfaces.
- Includes side cable exit adapter for solid ceiling mounting.

Antenna Electrical Specifications

Model	Frequency Range	Nominal Gain	Isolation	Horizontal Beamwidth	Vertical Beamwidth
MCD2400PT	2400-2485 MHz	2.5 dBi	> 20 dB	360°	40°
MCD2400PT36	2400-2485 MHz	2.2 dBi	> 20 dB	360°	40°

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Temperature Range
MCD2400PT	4.25" W x 8.5" L x 0.5" H (10.8 x 21.59 x 1.27 cm)	1 lb (0.45 kg)	-40°C to +80°C
MCD2400PT36	4.25" W x 8.5" L x 0.5" H (10.8 x 21.59 x 1.27 cm)	1 lb (0.45 kg)	-40°C to +80°C



MCD2400PT

MAXRAD

Technical Data

Maximum Power Input: 50 watts
Polarization: Vertical, linear
Nominal Impedance: 50 ohms
VSWR: < 1.5:1
Radome Housing: UL listed plastic
Mounting Method: Dual stud mount. Above ceiling tile mounting bracket is available for applications requiring no visibility of the antenna (sold separately). Side cable exit adapter for solid ceiling mounting (included).
Cable: Dual 12" (30.5 cm) Plenum RG-58/U CL2P MCD2400PT36 includes two 36" (91.4 cm) Plenum R6-58/U CL2P pigtails
Connector Options: (add connector part number after the PT prefix) Example: MCD2400PTNF (model MCD2400PT with N, female connector) N female (part #NF) Reverse Polarity TNC (part #RPTNC) Reverse Polarity BNC (part #RPBN) TNC (part #C)

For detailed specifications, visit <http://antenna.pctel.com>.

Multiple Band Ceiling Mount Omnidirectional Antenna



The SWAN8025OM multiband omnidirectional in-building antenna has been designed to offer a simple solution for multiple wireless indoor applications. Emphasis has been placed on styling, small dimensions and superior electrical performance.

It can be used as a singleband, dualband or multiband antenna. Typical applications covered are TETRA800, AMPS, GSM, DCS, PCS, UMTS and 2.4 GHz WLAN.

Features

- TETRA 800, AMPS, CDMA GSM, DCS, PCS, UMTS, 2.4 GHz WLAN
- Minimum visual impact
- Ceiling mounted omnidirectional
- Stylish housing

MAXRAD

Antenna Electrical Specifications

Model	Frequency Range	Gain	VSWR
SWAN8025OM	806-960 MHz 1710-2170 MHz 2400-2500MHz	1.5 dBi (800/900 MHz) 2.5 dBi (1700-2500 MHz)	< 1.9:1
SWAN8025OMV1	806-960 MHz 1710-2170 MHz 2400-2500MHz	1.5 dBi (800/900 MHz) 2.5 dBi (1700-2500 MHz)	< 1.9:1
SWAN8025OMV2	806-960 MHz 1710-2170 MHz 2400-2500MHz	1.5 dBi (800/900 MHz) 2.5 dBi (1700-2500 MHz)	< 1.9:1

Mechanical Specifications

Model	Cable	Connector	Dimensions	Weight
SWAN8025OM	9.84" (25 cm)	N socket	7.1 X 2.4" (180 x 62 mm)	285 g
SWAN8025OMV1	N/A	Panel Mount N socket	7.1 X 2.4" (180 x 62 mm)	285 g
SWAN8025OMV2	9.84" (25 cm) IP65 Rated	N socket	7.9 X 2.7" (20.1 x 6.8 cm)	0.57 lbs 0.26 kg

Technical Data

Maximum Power: 50 watts
Polarization: Vertical
Nominal Impedance: 50 ohms
Color: White
Radome Housing: ABS
Mounting Method: Ceiling Mount (3 screws included)

For detailed specifications, visit <http://antenna.pctel.com>.

In-building DPMR Ceiling Mount Omnidirectional Antennas

The SWANDPMROM omnidirectional in-building antennas have been designed for local area tunnel and in-building applications. They are custom designed for Digital PMR frequencies and provide excellent performance in confined space frames making them suitable for indoor applications.

Features

- DPMR applications
- Minimum visual impact
- Ceiling mounted omnidirectional
- Stylish housing



Antenna Electrical Specifications

Model	Frequency Range	Gain	VSWR
SWAN3800M	380-400 MHz	0 dBi	< 2.0:1
SWAN3800MV1*	380-400 MHz	0 dBi	< 2.0:1
SWAN4100M	410-430 MHz	0 dBi	
SWAN4700M	470-490 MHz	0 dBi	< 2.0:1
SWANSS1800C1V1	1710-1880 MHz 1920-2170 MHz	3 dBi	< 1.9:1
SWANDS1719C1V1**	1710-1880 MHz 1920-2170 MHz	3 dBi	< 1.9:1

MAXRAD

Technical Data

Max Power Handling: 20 watts
Polarization: Vertical
Impedance: 50 ohms
VSWR: < 2.0:1
Color: White
Radome: ABS
Base: Aluminum
Cable Tail: 250 mm 086 conformable cable
Connector: Type N socket
Mounting: Ceiling mount (3 screws included)

For detailed specifications, visit <http://antenna.pctel.com>.

* Includes metal ceiling mount

** Dual Band, Single feed

Mechanical Specifications

Model	Cable	Connector	Dimensions	Weight
SWAN3800M	9.84" (25 cm) 086 conformable	N socket	7.9 X 2.7" (20.1 x 6.8 cm)	0.57 lbs 0.26 kg
SWAN3800MV1**	9.84" (25 cm)	N socket	7.9 X 2.7" (20.1 x 6.8 cm)	0.57 lbs 0.26 kg
SWAN4100M	9.84" (25 cm)	N socket	7.9 X 2.7" (20.1 x 6.8 cm)	0.57 lbs 0.26 kg
SWAN4700M	9.84" (25 cm) 086 conformable	N socket	7.9 X 2.7" (20.1 x 6.8 cm)	0.57 lbs 0.26 kg
SWANSS1800C1V1	N/A	Panel Mount N socket	7.9 X 2.7" (20.1 x 6.8 cm)	0.57 lbs 0.26 kg
SWANDS1719C1V1***	N/A	Panel Mount N socket	7.9 X 2.7" (20.1 x 6.8 cm)	0.57 lbs 0.26 kg

* Includes metal ceiling mount

** Dual Band, Single feed

Ceiling Mount Omnidirectional Antennas

The MC series of antennas provide a low profile ceiling mount solution for indoor applications requiring maximum performance with minimum visibility.

They include a Plenum rated pigtail that can be fitted with a wide variety of connector options. They can be easily mounted to drop ceiling tiles or to a solid ceiling surface where cable routing access is available.

Features

- Attractive, low profile housing. Blends well in office environments and other locations where aesthetic considerations are important.
- UL listed materials and cable. Meets strict safety specifications.
- Single hole stud mount or optional side cable exit option. Easy to install on standard ceiling tiles or solid ceiling surfaces.
- Includes side cable exit adapter for solid ceiling mounting.
- Excellent value: superior performance at a competitive price.

Antenna Electrical Specifications

Model	Frequency Range	Gain
MC1900PT	1850-1990 MHz	2.5 dBi
MC2400PT*	2300-2500 MHz	2.5 dBi
MC24580304PT	2.4-2.48 GHz / 4.94-5.85 GHz	3 dBi / 4 dBi
MC4900PT	4.9-5.9 GHz	2.5 dBi

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Temperature Range	Cable
MC1900PT	4.25" OD x 0.5" D 10.8 x 1.27 cm	8 oz. (0.23 kg)	-40°C to +80°C	12" (30.5 cm) Plenum RG-58/U
MC2400PT*	4.25" OD x 0.5" D 10.8 x 1.27 cm	8 oz. (0.23 kg)	-40°C to +80°C	12" (30.5 cm) Plenum RG-58/U
MC24580304PT	4.25" OD x 0.5" D 10.8 x 1.27 cm	10 oz. (0.28 kg)	-40°C to +80°C	18" (45.75 cm) Plenum RG-58/U
MC4900PT	4.25" OD x 0.5" D 10.8 x 1.27 cm	10 oz. (0.28 kg)	-40°C to +80°C	18" (45.75 cm) Plenum RG-58/U



The MC antennas are available for various frequency ranges

MAXRAD

Technical Data

Maximum Power Input: 50 watts 25 watts (MC24580304PT only)
Polarization: Vertical, linear
Nominal Impedance: 50 ohms
VSWR across the Band: < 2.0:1
Radome Housing: UL listed plastic
Cable: See Mechanical Specifications
Connector Options: (add connector part number after the PT prefix) Example: MC2400PTNF (Model MC2400PT with N, female connector) BNC, Male (part #BN) N, Female (part #NF) N, Male (part #NM) Female SMA (part #FSMA) Reverse Polarity Male SMA (part #MSMA) Reverse Polarity Female SMA (part #FSMA) Reverse Polarity TNC Plug (part #MRPC) TNC, Male (part #C)
Mounting Method: Stud mount, single hole. Includes side cable exit adapter for solid ceiling mounting. Above ceiling tile mounting bracket is available for applications requiring no visibility of the antenna (sold separately as part #MACM).

For detailed specifications, visit <http://antenna.pctel.com>.

* This model also available with a 36 inch pigtail.



MLPC Series, MLPCDB800/1900S



MLPC450

MAXRAD

Technical Data

Maximum Power Input: 150 watts
Polarization: Vertical, linear
Nominal Impedance: 50 ohms
VSWR: < 2.0:1
Radiator Material: Solid brass radiator
Mounting Method: Off-white ceiling-mounted P.A. speaker baffle
Cable: 12" ML195 (MLPC1700PTRPTNC only)
Connector: See Electrical Specifications

For detailed specifications, visit <http://antenna.pctel.com>.

Low Profile Ceiling Mount Omnidirectional Antennas

The MLPC low profile ceiling mount antennas provide superior pattern coverage for ceiling mount applications using UHF, 800/900 MHz, PCS and WLAN frequencies. They are designed to provide industry leading wideband performance and reliability, with minimum loss and no tuning required. The innovative design of this series comprises an attractive low profile antenna installed on a standard ceiling mount public address (P.A.) speaker baffle that provides a built-in ground plane, and complements the decor in most in-building applications. They come standard with an N, female bulkhead connector, but a 12" ML195 pigtail option is also available.

Features

- Wideband coverage. No tuning is required.
- Built-in ground plane. Can be installed on any ceiling tile location without the need to provide a ground plane.
- Attractive low profile. These antennas easily complement the decor in most in-building locations.
- Excellent pattern coverage, outstanding performance and reliability.

Antenna Electrical Specifications

Model	Frequency Range	Gain
MLPC450	450-470 MHz	Unity
MLPC800	806-960 MHz	3.0 dBi
MLPCDB800/1900	806-960 MHz and 1710-2500 MHz	2.0 dBi (at 800 MHz) 3.5 dBi (at 1900-2500 MHz)
MLPC1700	1700-2500 MHz	3.5 dBi
MLPC1700PTRPTNC	1700-2500 MHz	3.5 dBi

Mechanical Specifications

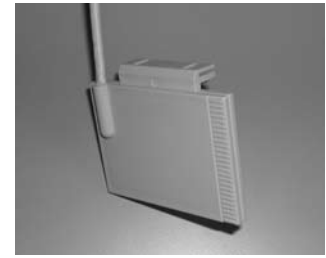
Model	Connector	Dimensions	Weight (Mass)	Temperature Range
MLPC450	N, female	12.87" OD x 2.75" H (32.7 x 6.98 cm)	0.5 lbs (0.23 kg)	-40°C to +85°C
MLPC800	N, female	12.87" OD x 2.75" H (32.7 x 6.98 cm)	0.5 lbs (0.23 kg)	-40°C to +85°C
MLPCDB800/1900	N, female	12.87" OD x 1.87" H (32.7 x 4.76 cm)	0.5 lbs (0.23 kg)	-40°C to +85°C
MLPC1700	N, female	12.87" OD x 1.87" H (32.7 x 4.76 cm)	0.5 lbs (0.23 kg)	-40°C to +85°C
MLPC1700PTRPTNC	Reverse Polarity TNC	12.87" OD x 1.87" H (32.7 x 4.76 cm)	0.5 lbs (0.23 kg)	-40°C to +85°C

Ceiling Mount Bi-directional Antennas

The MHA bi-directional indoor antennas are designed for minimum visibility and efficient bi-directional coverage of PCS, WiFi and 4.9 GHz Public Safety frequencies. These antennas include a Plenum rated pigtail that can be terminated with various connector options. Their discrete, bi-directional design makes them ideal for use in hallways and corridors in many types of applications requiring extended wireless coverage in opposite directions.

Features

- Point-to-point, bi-directional design. Provides extended wireless coverage in two directions. Ideal for use in long corridors where a more targeted radiated signal is necessary to achieve adequate coverage.
- Attractive, low profile housing. Blends well in office environments and other locations where aesthetic considerations are important.
- UL listed materials and cable. Meet strict UL safety specifications.
- Mounting bracket clips to standard one inch wide suspended ceiling tile rails. Holes provided for screw ceiling mounting (screws not provided).



MHA Antenna



Antenna Electrical Specifications

Model	Frequency Range	Gain	Horizontal Beamwidth	Vertical Beamwidth
MHA1900PT	1850-1990 MHz	4 dBi	100°	75°
MHA2400PT	2300-2500 MHz	4 dBi	100°	75°
MHA24580406PT	2.4-2.48 GHz/ 4.94-5.85 GHz	4 dBi / 6 dBi	70° / 55°	70° / 55°

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Temperature Range	Cable
MHA1900PT	3" W x 2.5" H x 0.45" D (7.6 x 6.3 x 1.1 cm)	2.6 oz (0.07 kg)	-40°C to +71°C	6" (15.2 cm) Plenum RG-58/U
MHA2400PT	3" W x 2.5" H x 0.45" D (7.6 x 6.35 x 1.14 cm)	2.6 oz (0.07 kg)	-40°C to +71°C	6" (15.2 cm) Plenum RG-58/U
MHA24580406PT	3" W x 2.5" H x 0.45" D (7.6 x 6.35 x 1.14 cm)	2.6 oz (0.07 kg)	-40°C to +70°C	18" (45.72 cm) Plenum RG-58/U

MAXRAD

Technical Data

Maximum Power Input: 10 watts 25 watts (MHA24580406PT only)
Polarization: Vertical
Nominal Impedance: 50 ohms
VSWR: < 2.0:1
Radome Material: UL 94-V0 plastic
Cable: See Mechanical Specifications
Connector Options: (add connector part number after the PT prefix) Female SMA (part #FSMA) Male SMA (part #MSMA) Female SMA, reverse threaded (part #FSMART) Male SMA, reverse threaded (part #MSMART) TNC, Male (part #C) Reverse Polarity TNC (part #RPTNC)
Mounting Method: Mounting bracket clips to standard one inch wide suspended ceiling tile rails. Holes are provided for mounting to a flat ceiling with screws (not included).

For detailed specifications, visit <http://antenna.pctel.com>.

Ceiling Mount Omnidirectional Antennas



MFB24004CM

WiFi Omnidirectional Fiberglass Antenna

The MFB24004CM omnidirectional fiberglass antenna covers 2.4 GHz frequency bands with a VSWR of less than 1.5:1. It provides 4 dBi gain and features a built-in matching network that eliminates the need for a ground plane. This antenna is ceiling mounted with the MMK11 mount.

Features

- U.V. stabilized, pultruded fiberglass radome. Antenna can be utilized in harsh indoor environments, providing years of trouble-free service.
- Ceiling tile mounting bracket included for easy installation.

MAXRAD

Technical Data

Maximum Power: 25 watts
Polarization: Vertical
Nominal Impedance: 50 ohms
VSWR: < 1.5:1
Radome Material: 5/8 inch diameter pultruded UV-stable fiberglass
Connector: N, female
Mounting Base Diameter: 1-1/4 inches
Mounting Method (included): White powder coated ceiling mount bracket (part #MMK11) is included

For detailed specifications,
visit <http://antenna.pctel.com>.

Antenna Electrical Specifications

Model	Frequency Range	Gain	Bandwidth @ 1.5:1 VSWR	Vertical Beamwidth @ 1/2 Power
MFB24004CM	2400-2483 MHz	4 dBi	100 MHz	30°

Mechanical Specifications

Model	Height	Weight (Mass)	Equivalent Flat Plate Area
MFB24004CM	10" (25.4 cm)	0.34 lbs (0.15 kg)	0.04 ft ²

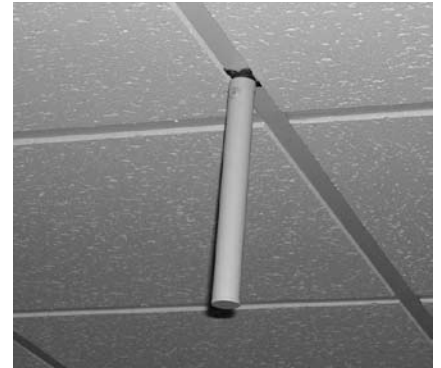
Ceiling Mount Omnidirectional Antennas

WiFi Ceiling Mount Omnidirectional Antennas

These antennas are designed to cover frequencies from 2400 to 2485 MHz with a VSWR of less than 1.5:1. The broad elevation plane radiation pattern has been shaped to direct energy where it is needed, while suppressing the misdirected upper and lower sidelobe energy. The result is excellent coverage for a variety of in-building applications.

Features

- Optimized radiation pattern focuses energy where it is needed while suppressing upper and lower sidelobe energy.
- UL Plenum rated RG-58/U coax cable and UL94-V0 radome. Meet strict safety specifications.
- Include a 1/4-20" insert that allows clipping to standard ceiling rails for simple in-building installations.



MCO24005PT

Antenna Electrical Specifications

Model	Frequency Range	Gain	Horizontal Beamwidth	Vertical Beamwidth
MCO24005PT	2400-2485 MHz	5.5 dBi	360°	32°
MCO24005PT36	2400-2485 MHz	5.2 dBi	360°	32°

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Temperature Range
MCO24005PT	9.8" L x 1.0" OD (24.8 x 2.54 cm)	8 oz. (0.23 kg)	-30° C to 75° C
MCO24005PT36	9.8" L x 1.0" OD (24.8 x 2.54 cm)	8 oz. (0.23 kg)	-30° C to 75° C

MAXRAD

Technical Data

Maximum Power: 5 watts
Polarization: Vertical, linear
Nominal Impedance: 50 ohms
VSWR: < 1.5:1
Radome Material: UL94-V0 plastic
Wind Survival: 125 mph
Cable: 12" (30.5 cm) RG-58/U (MCO24005PT) 36" (91.5 cm) RG-58/U (MCO24005PT36)
Connector Options: (add connector part number after the PT prefix) BNC, Male (part #BN) N, Female (part #NF) N, Male (part #NM) Female SMA (part #FSMA) Male SMA (part #MSMA) Reverse Polarity TNC Plug (part #MRPC)
Mounting Method: 1/4-20 insert for clipping to a ceiling tile rail

For detailed specifications, visit <http://antenna.pctel.com>.



MPD24006XFPT on MPAB11 mount

WiFi Diversity Directional Panel Antenna

The MPD24006XFPT diversity panel antenna covers 2.4 GHz frequencies with a VSWR of less than 1.5:1. This diversity antenna is designed to obtain maximum gain and performance across the band. The printed circuit design is housed in an attractive, low profile radome made with UL94-V0 materials that meet strict safety specifications.

Features

- UL94-V0 plastic and PC board. Provides UL's high flame retardant rating allowing maximum placement flexibility. Meets stringent building fire rating codes.
- Attractive, low profile housing. Blends well with indoor and outdoor environments where aesthetic considerations are important.
- Adjustable mounting brackets for indoor and outdoor mounting. Provide maximum flexibility for indoor or outdoor installations.

Antenna Electrical Specifications

Model	Frequency Range	Gain	3 dB Horizontal Beamwidth	3 dB Vertical Beamwidth	Typical Port to Port Isolation
MPD24006XFPT	2300-2500 MHz	6.5 dBi	90°	70°	20 dB

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Temperature Range	Wind Loading (frontal) @100 mph Wind
MPD24006XFPT	5.1" x 4.7" x 1.5" (12.0 x 11.9 x 3.8 cm)	0.5 lbs (0.23 kg)	-40°C to +70°C	9.3 lbs

MAXRAD

Technical Data

Maximum Power Input: 20 watts
Polarization: Linear, vertical
Nominal Impedance: 50 ohms
VSWR: < 1.5:1
Front-to-Back Ratio: > 15 dB
Radome Housing: UL94-V0 plastic
Cable: 36" (91 cm) RG-58/U
Connector: Reverse Polarity TNC standard Other connector options available.
Mounting Brackets (sold separately): MPAB11 short adjustable bracket for wall or pipe mount MPAB12 long adjustable corner mount

For detailed specifications, visit <http://antenna.pctel.com>.

WiFi Wall Mount Diversity Omnidirectional Antenna

This diversity wall mounted omnidirectional antenna is designed to cover frequencies from 2400 to 2485 MHz with a VSWR of less than 2:1. The broad elevation plane radiation pattern has been shaped to direct energy where it is needed, while suppressing the misdirected upper and lower sidelobe energy. This antenna is ideal for a wide variety of indoor antenna applications.

Features

- UL listed 94-V0 plastic and Plenum rated RG-58/U cable. Meets strict safety specifications.
- Includes articulating wall mount bracket for added installation flexibility.



MDO24005PT

Antenna Electrical Specifications

Model	Frequency Range	Gain	H-plane Beamwidth	E-plane Beamwidth
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MDO24005PT	2400-2485 MHz	5.2 dBi each	360°	27°
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Mechanical Specifications

Model	Temperature Range	Dimensions	Weight (Mass)
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MDO24005PT	-30°C to 75°C	11" H x 5" W x 1" D (27.9 x 12.7 x 2.6 cm)	19 oz. (0.54 kg)
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MAXRAD

Technical Data

Power Input: 5 watts
Polarization: Vertical, linear
Nominal Impedance: 50 ohms
VSWR: < 2.0:1
Radome Housing: Off-White UV resistant UL94-V0 rated plastic with ecru/off-white fabric cover
Cable: Dual 36" white Plenum rated coax
Connector Options: (add connector part number after the PT prefix) Reverse Polarity Male SMA (part #RPMSMA) N, female (part #NF) N, male (part #NM) Reverse Polarity TNC (part #RPTNC) Reverse Polarity BNC (part #RPBNC) Male SMA (part #MSMA)
Mounting Method: Universal wall and pipe adjustable mounting bracket (included)

For detailed specifications, visit <http://antenna.pctel.com>.



MP24008XFPT

Directional Panel Antennas

The MAXRAD directional panel antennas are designed to cover various frequencies with a VSWR of less than 1.5:1, obtaining maximum gain with an attractive, low-profile package. All models provide efficient and stable performance across the band and can be mounted indoors or outdoors.

Features

- PCB design. Provides best performance-to-price ratio.
- UL94-V0 plastic and PC board conform to UL's high flame retardant rating, allowing maximum placement flexibility. Meets stringent building code requirements.
- Attractive, low profile housing. Blends well with indoor and outdoor environments where aesthetic considerations are important.
- Corner exit RG-58/U pigtail design. Permits the panel to be mounted in vertical or horizontal polarity.
- Adjustable mounting brackets for indoor installation are included. Indoor corner mounting bracket and heavy duty outdoor mounting brackets are also available. These provide maximum flexibility for indoor or outdoor installations.

MP24580809PT
on MPAB11 Mount

Technical Data

Maximum Power Input: 20 watts
Polarization: Vertical or horizontal, linear (except MP24012CPLXFPT) Left hand circular (Model MP24012CPLXFPT and MP9026CPLXFPT) Right hand circular (MP9026CPRXFPT only)
Nominal Impedance: 50 ohms
VSWR: See Electrical Specifications
Radome Material: UL94-V0 plastic
Lightning Protection: DC grounded
Cable: See Mechanical Specifications
Connector Options: N female (part #NF) is standard. Please consult factory for other connector options.
Mounting Method: Adjustable azimuth/elevation MPAB11 mount is included with 5.1" x 7.7" x 1.5" housing panels. Adjustable azimuth/elevation MPAB12 indoor corner mount is sold separately.

MP24012CPLXFPT
on MPAB12 Corner Mount

For detailed specifications, visit <http://antenna.pctel.com>.

Antenna Electrical Specifications

Model	Frequency Range	Gain	VSWR	3 dB Horizontal Beamwidth	3 dB Vertical Beamwidth	Front-to-Back Ratio
MP8066XFPT	806-960 MHz	8.1 dBi	< 1.5:1	70°	60°	> 17 dB
MP8906XFPT	890-960 MHz	8.6 dBi	< 1.5:1	70°	60°	> 17 dB
MP9027XFPT	902-928 MHz	9.1 dBi	< 1.5:1	65°	65°	> 17 dB
MP9026CPLXFPT	902-928 MHz	8.5 dBic	< 1.5:1	65°	65°	> 20 dB
MP9026CPRXFPT	902-928 MHz	8.5 dBic	< 1.5:1	65°	65°	> 20 dB
MPMB80621MPTC	806-960 MHz	5 dBi	< 2.0:1	70°	67°	> 15 dB
	1710-2170 MHz	7.5 dBi	< 2.0:1	75°	55°	> 20 dB
MP19008XFPT	1850-1990 MHz	8.0 dBi	< 1.5:1	90°	60°	> 15 dB
MP19013XFPT	1850-1990 MHz	12.5 dBi	< 1.5:1	40°	35°	> 18 dB
MP24008XFPT	2300-2500 MHz	8.5 dBi	< 1.5:1	60°	60°	> 15 dB
MP24012CPLXFPT	2300-2500 MHz	12.0 dBic	< 1.5:1	35°	35°	> 20 dB
MP24013XFPT	2300-2500 MHz	13.0 dBi	< 1.5:1	35°	35°	> 18 dB
MP51513XFPT	5150-5350 MHz	13.0 dBi	< 1.5:1	42°	27°	> 23 dB
MP58013XFPT	5725-5875 MHz	12.5 dBi	< 1.5:1	42°	28°	> 23 dB
MP24580809PT	2.4-2.48 / 4.94-5.85 GHz	8 dBi / 9 dBi	< 2.0:1 / < 2.0:1	60° / 50°	60° / 40°	> 22 dB / > 15 dB

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Temperature Range	Cable
MP8066XFP	8.8" x 8.1" x 1.6" (22.4 x 20.6 x 4.06 cm)	1.2 lbs (0.54 kg)	-40°C to +70°C	12" RG-58/U
MP8906XFPT	8.8" x 8.1" x 1.6" (22.4 x 20.6 x 4.06 cm)	1.2 lbs (0.54 kg)	-40°C to +70°C	12" RG-58/U
MP9027XFPT	8.8" x 8.1" x 1.6" (22.4 x 20.6 x 4.06 cm)	1.2 lbs (0.54 kg)	-40°C to +70°C	12" RG-58/U
MP9026CPLXFPT	8.8" x 8.1" x 1.6" (22.4 x 20.6 x 4.06 cm)	1.2 lbs (0.54 kg)	-40°C to +70°C	12" RG-58/U
MP9026CPRXFPT	8.8" x 8.1" x 1.6" (22.4 x 20.6 x 4.06 cm)	1.2 lbs (0.54 kg)	-40°C to +70°C	12" RG-58/U
MPMB80621MPTC	8.8" x 8.1" x 1.6" (22.4 x 20.6 x 4.06 cm)	1.2 lbs (0.54 kg)	-40°C to +70°C	3' (91.4 cm) RG-58/U
MP19008XFPT	5.1" x 4.7" x 1.5" (12.9 x 11.9 x 3.8 cm)	0.5 lbs (0.23 kg)	-40°C to +70°C	12" (30.5 cm) RG-58/U*
MP19013XFPT	8.8" x 8.1" x 1.6" (22.4 x 20.6 x 4.06 cm)	1.2 lbs (0.54 kg)	-40°C to +70°C	12" (30.5 cm) RG-58/U*
MP24008XFPT	5.1" x 4.7" x 1.5" (12.9 x 11.9 x 3.8 cm)	0.5 lbs (0.23 kg)	-40°C to +70°C	12" (30.5 cm) RG-58/U*
MP24012CPLXFPT	8.8" x 8.1" x 1.6" (22.4 x 20.6 x 4.06 cm)	1.2 lbs (0.54 kg)	-40°C to +70°C	12" (30.5 cm) RG-58/U*
MP24013XFPT	8.8" x 8.1" x 1.6" (22.4 x 20.6 x 4.06 cm)	1.2 lbs (0.54 kg)	-40°C to +70°C	12" (30.5 cm) RG-58/U*
MP51513XFPT	5.1" x 4.7" x 1.5" (12.9 x 11.9 x 3.8 cm)	0.5 lbs (0.23 kg)	-40°C to +70°C	6" (15.25 cm) .141 semi-rigid*
MP58013XFPT	5.1" x 4.7" x 1.5" (12.9 x 11.9 x 3.8 cm)	0.5 lbs (0.23 kg)	-40°C to +70°C	6" (15.25 cm) .141 semi-rigid*
MP24580809PT	5.1" x 4.7" x 1.5" (12.9 x 11.9 x 3.8 cm)	0.5 lbs (0.23 kg)	-40°C to +70°C	12" (30.5 cm) Plenum Rated ML195

* UL910 rated cable optional.



SWAN55410



SWAN55180063C1

Low Profile Impact Directional Panel Antennas

The SWAN Directional PMR antennas have been designed for local area tunnel and in-building applications. The antennas are custom designed for Digital PMR frequencies and provide excellent performance in exceptionally confined space frames making them extremely suitable for indoor applications. Suitable for wall or ceiling mounting.

Features

- Digital PMR applications
- Stylish molded housing
- IP 66 rated
- CDMA applications
- Single frequency
- Flexible mounting- wall or ceiling
- Linear polarized
- Broadband, DCS, UMTS
- AMPS, TETRA 800, GSM, DCS, PCS, UMTS
- Flexible mounting- flush or pivot
- Low profile

MAXRAD

Technical Data

Maximum Power: 25 watts for 380-490 MHz models 50 watts for 806-960 MHz models and for multiband models 20 watts for 1710-2170 MHz models
Polarization: Vertical, linear
Nominal Impedance: 50 ohms
VSWR at Resonant Point: See Electrical Specifications
Front-to-Back Ratio: 8 dB
Radome Material: White UV resistant PC/ABS polycarbonate
Base Material: Aluminum
Downtilt: 0-45° adjustable
Panning: +/-15° adjustable
Front-to-Back ratio: 8 dB (for 380-490 MHz models only)
Termination: 9.8" (250 mm) cable
Connector Type: Type N socket
Mounting Method: Mold brackets for flush or pivot mounting for wall applications. Threaded studs and wing nuts for ceiling applications.

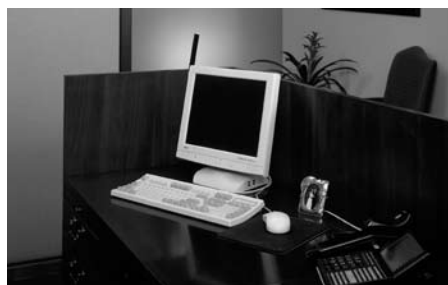
Antenna Electrical Specifications

Model	Frequency Range	-3dB H-Plane Beamwidth	-3dB E-Plane Beamwidth	Gain	VSWR
SWANDS80183G1W3	1710-1880 MHz/ 1920-2170 MHz	105° / 70°	130° / 55°	3 dBi	< 1.7:1
SWANSS380W4	380-400 MHz	130°	110°	4 dBi	< 1.5:1
SWANSS380C4	380-400 MHz	130°	110°	4 dBi	< 1.5:1
SWANSS410W4V1	410-430 MHz	130°	110°	4 dBi	< 1.5:1
SWANSS450W4	450-470 MHz	130°	110°	4 dBi	< 1.5:1
SWANSS450C4V1	450-470 MHz	130°	110°	4 dBi	< 1.5:1
SWANSS450W4V1	450-470 MHz	130°	110°	4 dBi	< 1.5:1
SWANSS824G3C2V1	824-894 MHz	57°	43°	3 dBi	< 1.5:1
SWANDCS3G1C2V1	1710-2170 MHz	72°	50°	7 dBi	< 1.5:1

For detailed specifications, visit
<http://antenna.pctel.com>.

Mechanical Specifications

Model	Cable	Connector	Dimensions (L x W x D)	Weight
SWANDS80183G1W3	9.84" (25 cm)	N socket	8.5" x 5.2" x 1.2" (21.7 x 13.3 x 0.31 cm)	0.91 lbs 0.42 kg
SWANSS380W4	9.84" (25 cm)	N socket	11.6" x 8.3" x 2" (29.5 x 21.1 x 5.2 cm)	1.7 lbs 0.75 kg
SWANSS380C4	9.84" (25 cm)	N socket	11.6" x 8.3" x 2" (29.5 x 21.1 x 5.2 cm)	1.7 lbs 0.75 kg
SWANSS410W4V1	9.84" (25 cm)	N socket	11.6" x 8.3" x 2" (29.5 x 21.1 x 5.2 cm)	1.7 lbs 0.75 kg
SWANSS450W4	9.84" (25 cm)	N socket	11.6" x 8.3" x 2" (29.5 x 21.1 x 5.2 cm)	1.7 lbs 0.75 kg
SWANSS450C4V1	9.84" (25 cm)	N socket	11.6" x 8.3" x 2" (29.5 x 21.1 x 5.2 cm)	1.7 lbs 0.75 kg
SWANSS450W4V1	9.84" (25 cm)	N socket	11.6" x 8.3" x 2" (29.5 x 21.1 x 5.2 cm)	1.7 lbs 0.75 kg
SWANSS824G3C2V1	15" (38.1 cm)	N socket	7.9" X 2.7" (20.1 x 6.8 cm)	0.57 lbs 0.26 kg
SWANDCS3G1C2V1	N/A	Panel Mount N socket	7.9" X 2.7" (20.1 x 6.8 cm)	0.57 lbs 0.26 kg



MIG24



The MIG antennas can be utilized for a wide variety of wireless WiFi applications.



Omnidirectional Tape Mount

The MIG line of omnidirectional tape mount antennas cover multiple frequencies with a VSWR of less than 2:1. Their rugged design accommodates a wide variety of applications including office LAN environments, factories, remote telemetry and other harsh environments where a compact, stick-on mount antenna solution is needed. They utilize 3M® very high bond tape for quick, easy mounting. An optional desktop base is available and sold separately.

Features

- High bond tape mount provides mounting flexibility for various applications, including computer monitors, hand held devices, cashier terminals, glass, etc.
- Rugged, ultra thin housing design withstands heavy use and provides minimum visibility.
- Can be used for fixed or mobile applications. Provides maximum flexibility and versatility.
- Desktop base mount makes it ideal for use in office and home environments (sold separately).
- Ceiling tile bracket included for ceiling tile suspension (MIG2458 only).

MAXRAD

Technical Data

Maximum Power: 5 watts
Polarization: Vertical, linear
Nominal Impedance: 50 ohms
VSWR: See Antenna Electrical Specifications
Color: White (WMIG Models) Black (MIG Models)
Cable: See Mechanical Specifications
Connector Options: (add connector part number after the PT prefix) Example: MIG2425NF (Model MIG2425 with N, female connector) Male N (part #UN with ML100 cable) Female SMA (part #FSMA) Male SMA (part #MSMA) Male TNC (part #C) Reverse Polarity TNC (part #RPC) MC Lucent connector (part #RALU) Micro-miniature connector (part #MMCX) MCX connector (part #MCX)
Mount Method (hardware included): 3M® high bond tape Ceiling mount bracket (MIG2458 only) Black (MIGBASE) or white (WHIGBASE) Desktop base mount (5.5" L x 4" W ; 2.7 oz) (sold separately)

For detailed specifications, visit <http://antenna.pctel.com>.

Antenna Electrical Specifications

Model	Frequency Range	Gain	VSWR
MIG23	2300-2360 MHz	3 dBi	< 2:1 in free space
MIG24	2400-2500 MHz	4 dBi	< 1.7:1 on glass, < 2:1 in free space
MIG2425	2400-2686 MHz	4 dBi	< 1.7:1 on glass, < 2:1 in free space
MIG24PT72	2400-2500 MHz	2 dBi	< 1.7:1 on glass, < 2:1 in free space
MIG2425PT72	2400-2686 MHz	2 dBi	< 1.7:1 on glass, < 2:1 in free space
WMIG23	2300-2360 MHz	3 dBi	< 2:1 in free space
WMIG24	2400-2500 MHz	4 dBi	< 1.7:1 on glass, < 2:1 in free space
WMIG2425	2400-2686 MHz	4 dBi	< 1.7:1 on glass, < 2:1 in free space
WMIG24PT72	2400-2500 MHz	2 dBi	< 1.7:1 on glass, < 2:1 in free space
WMIG2425PT72	2400-2686 MHz	2 dBi	< 1.7:1 on glass, < 2:1 in free space
MIG2458	2.4-2.5 GHz / 5.15-5.825 GHz	0 dBi / 3 dBi	< 2:1 / < 2:1
WMIG2458	2.4-2.5 GHz / 5.15-5.825 GHz	0 dBi / 3 dBi	< 2:1 / < 2:1
MIG52	5.15-5.35 GHz	6 dBi	< 1.7:1 on glass, < 2:1 in free space
WMIG52	5.15-5.35 GHz	6 dBi	< 1.7:1 on glass, < 2:1 in free space
MIG52PT72	5.15-5.35 GHz	3 dBi	< 1.7:1 on glass, < 2:1 in free space
WMIG52PT72	5.15-5.35 GHz	3 dBi	< 1.7:1 on glass, < 2:1 in free space
MIG58	5.725-5.825 GHz	6 dBi	< 1.7:1 on glass, < 2:1 in free space
WMIG58	5.725-5.825 GHz	6 dBi	< 1.7:1 on glass, < 2:1 in free space
MIG58PT72	5.725-5.825 GHz	3 dBi	< 1.7:1 on glass, < 2:1 in free space
WMIG58PT72	5.725-5.825 GHz	3 dBi	< 1.7:1 on glass, < 2:1 in free space

MIG Antennas and MIG bases are also available as kits. To order as a kit, replace the prefix MIG or WMIG for MIGB or WMIGB in the above part numbers. For example: WMIGB24PT72RAMMCX indicates a white MIG with a 72" pigtail, MMCX connector and a white desktop base.

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Temperature Range	Cable
MIG23	5.7" L x 1" W x 0.1" D (144.8 x 25.4 x 2.54 mm)	0.14 lbs (0.064 kg)	-40°C to +85°C	1.5' (457.2 mm) ML100A
MIG24	5.7" L x 1" W x 0.1" D (144.8 x 25.4 x 2.54 mm)	0.14 lbs (0.064 kg)	-40°C to +85°C	1.5' (457.2 mm) ML100A
MIG2425	5.7" L x 1" W x 0.1" D (144.8 x 25.4 x 2.54 mm)	0.14 lbs (0.064 kg)	-40°C to +85°C	1.5' (457.2 mm) ML100A
MIG24PT72	5.7" L x 1" W x 0.1" D (144.8 x 25.4 x 2.54 mm)	0.14 lbs (0.064 kg)	-40°C to +85°C	6' (1,828.8 mm) ML100A
MIG2425PT72	5.7" L x 1" W x 0.1" D (144.8 x 25.4 x 2.54 mm)	0.14 lbs (0.064 kg)	-40°C to +85°C	6' (1,828.8 mm) ML100A
WMIG23	5.7" L x 1" W x 0.1" D (144.8 x 25.4 x 2.54 mm)	0.14 lbs (0.064 kg)	-40°C to +85°C	1.5' (457.2 mm) ML100A
WMIG24	5.7" L x 1" W x 0.1" D (144.8 x 25.4 x 2.54 mm)	0.14 lbs (0.064 kg)	-40°C to +85°C	1.5' (457.2 mm) ML100A
WMIG2425	5.7" L x 1" W x 0.1" D (144.8 x 25.4 x 2.54 mm)	0.14 lbs (0.064 kg)	-40°C to +85°C	1.5' (457.2 mm) ML100A
WMIG24PT72	5.7" L x 1" W x 0.1" D (144.8 x 25.4 x 2.54 mm)	0.14 lbs (0.064 kg)	-40°C to +85°C	6' (1,828.8 mm) ML100A
WMIG2425PT72	5.7" L x 1" W x 0.1" D (144.8 x 25.4 x 2.54 mm)	0.14 lbs (0.064 kg)	-40°C to +85°C	6' (1,828.8 mm) ML100A
MIG2458	5.7" L x 1" W x 0.1" D	0.14 lbs (0.064 kg)	-40°C to +85°C	6' (1,828.8 mm) ML100A
WMIG2458	5.7" L x 1" W x 0.1" D	0.14 lbs (0.064 kg)	-40°C to +85°C	6' (1,828.8 mm) ML100A
MIG52	5.7" L x 1" W x 0.1" D (144.8 x 25.4 x 2.54 mm)	0.14 lbs (0.064 kg)	-40°C to +85°C	1.5' (457.2 mm) ML100A
WMIG52	5.7" L x 1" W x 0.1" D (144.8 x 25.4 x 2.54 mm)	0.14 lbs (0.064 kg)	-40°C to +85°C	1.5' (457.2 mm) ML100A
MIG52PT72	5.7" L x 1" W x 0.1" D (144.8 x 25.4 x 2.54 mm)	0.14 lbs (0.064 kg)	-40°C to +85°C	6' (182.8 cm) ML100A
WMIG52PT72	5.7" L x 1" W x 0.1" D (144.8 x 25.4 x 2.54 mm)	0.14 lbs (0.064 kg)	-40°C to +85°C	6' (182.8 cm) ML100A
MIG58	5.7" L x 1" W x 0.1" D (144.8 x 25.4 x 2.54 mm)	0.14 lbs (0.064 kg)	-40°C to +85°C	1.5' (457.2 mm) ML100A
WMIG58	5.7" L x 1" W x 0.1" D (144.8 x 25.4 x 2.54 mm)	0.14 lbs (0.064 kg)	-40°C to +85°C	1.5' (457.2 mm) ML100A
MIG58PT72	5.7" L x 1" W x 0.1" D (144.8 x 25.4 x 2.54 mm)	0.14 lbs (0.064 kg)	-40°C to +85°C	6' (182.8 cm) ML100A
WMIG58PT72	5.7" L x 1" W x 0.1" D (144.8 x 25.4 x 2.54 mm)	0.14 lbs (0.064 kg)	-40°C to +85°C	6' (182.8 cm) ML100A

Accessories

Model	Description	Dimensions	Weight (Mass)	Color
MIGBASE	Desktop mount base for black MIG antenna	5.5" L x 4" W	2.7 oz	Black
WMIGBASE	Desktop mount base for white MIG antenna	5.5" L x 4" W	2.7 oz	White

Miniature Stud Mount Omnidirectional Antenna - WiFi Data Reading

Miniature Stud Mount Omnidirectional Antenna for WiFi Applications

The MMSO2300 miniature omnidirectional antenna covers frequencies from 2300-2500 MHz with a VSWR of less than 1.5:1. This ground-plane dependent antenna is designed to go virtually undetected while providing dependable WiFi data throughput. It utilizes a bulkhead stud mount and hardware for secure permanent installations and includes a 3" RG-188A/U pigtail.

Features

- Miniature 1.3 inch housing. Provides minimum visibility for areas prone to theft or vandalism.
- Bulkhead stud mount secures the antenna for permanent installations, reducing the probability that the antenna will be stolen.
- Excellent performance with a VSWR of less than 1.5:1 for dependable wireless data coverage in a very low profile design.

Antenna Electrical Specifications

Model	Frequency Range	Gain
MMSO2300	2300-2500 MHz	Unity

Mechanical Specifications

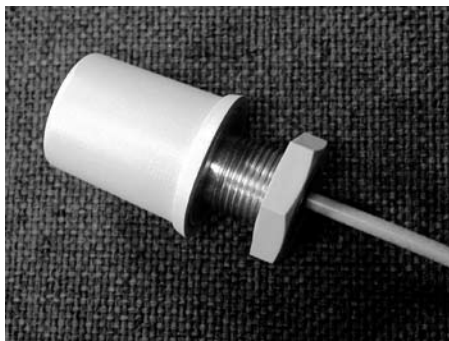
Model	Dimensions	Weight (Mass)	Temperature Range
MMSO2300	1.34 " H x 0.75" OD base with 0.63" flats (34.04 x 19.05 x 16.02 mm)	0.4 oz (0.015 kg)	-30° to +80 °C


MAXRAD

Technical Data

Maximum Power: 10 watts
Polarization: Vertical, linear
Nominal Impedance: 50 ohms
VSWR: < 1.5:1
Color: Black
Radome Housing: Delrin, UV resistant
Cable: 3" (76.2 mm) RG-188A/U flying lead Other cable lengths and connector options are available.
Mounting Method: 1/4-28 stud mount, lock washer, jam nut and o-ring seal provided mounts to surfaces up to 0.25" thick

For detailed specifications, visit <http://antenna.pctel.com>.



Enclosure Mounted Multi-Band Low Profile Vertical Antenna **NEW**

The WMLPVIDB244958PTRPC antenna provides superior pattern coverage for fixed applications operating in 2400-2500 MHz, as well as 4900 to 5825 MHz. This design provides industry leading wideband performance and reliability, with minimum loss and no tuning required. It features an attractive, compact package that is ideal for indoor applications requiring minimum visibility.



MAXRAD

Antenna Electrical Specifications

Frequency Range	Nominal Gain	H-Plane Beamwidth	E-Plane Beamwidth
2400-2500 MHz	4 dBi	360°	35° Nominal
4900-5825 MHz	4 dBi	360°	20° Nominal

Mechanical Specifications

Cable	Dimensions	Weight (Mass)
16" Plenum rated RG-58/U PL	1.75" x 1.63" OD	6.5 oz

Technical Data

General Specifications: Multi-band low profile antenna
Maximum Power: 10 watts
VSWR: < 2.0
Nominal Impedance: 50 ohms
Polarization: Vertical, linear
Radome Material: UL 94-V0 PC/ABS
Connector Options: Reverse Polarity TNC Reverse Polarity SMA
Mounting Method: Through hole 15/16 dia (0.94) 7/8-14 UNF plastic Hex-Nut

For detailed specifications, visit <http://antenna.pctel.com>.

Miniature Bottom Fed 3 dBi Gain WiFi Antenna ^{NEW}

This antenna provides superior pattern coverage for fixed applications operating in 2400-2500 MHz with a 3.5 dBi gain performance. It is designed to provide excellent performance and durability with no tuning required. The antenna features a low profile housing with integral stud mount and three foot coaxial pigtail terminated with a reverse polarity male SMA connector.



Antenna Electrical Specifications

Model	Frequency Range	H-Plane Beamwidth	E-Plane Beamwidth	Nominal Gain
MTOC24003PTRPSMA	2400-2500 MHz	360°	35°	3.5 dBi

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Temperature Range
MTOC24003PTRPSMA	1.76" x 1.64" OD	6.5 oz	3 ft. Pro-Flex Plus™ 195

MAXRAD

Technical Data

General Specifications: Miniature bottom fed WiFi antenna for use on metallic ground planes
Maximum Power: 10 watts
VSWR: < 1.5:1
Nominal Impedance: 50 ohms
Antenna Type: 1/4 Wave (all models except 800/900 MHz collinear) 5/8 Wave over a 1/4 Wave (800/900 MHz collinear)
Radiator Material: .062" diameter stainless steel, bright or black finish
Mount Method: Through hole 15/16 dia (0.92) 7/8-14 UNF plastic Hex-Nut

For detailed specifications, visit <http://antenna.pctel.com>.



Wideband Telemetry Low Profile Omnidirectional Antenna

The MTOW8200 wideband omnidirectional antenna allows for operation in both AMPS and GSM cellular frequencies, making it ideal for telemetry data tracking applications. Its low profile dimensions allow this antenna to be installed in areas where space optimization is a primary requirement. For mounting applications that prohibit the use of through-hole drilling, a side-feed cable option is available.

Features

- Extremely low profile housing provides minimum visibility for areas prone to theft or vandalism, such as vending machines, traffic lights and utility meter reader boxes.
- Wideband electrical design offers support for both N-AMPS and GSM cellular frequency bands.
- Ultra-violet stability and rugged mechanical design allow both indoor and outdoor mounting.
- Side-fed cable options (part #MTOW8200-SC) removes the requirement for any through-hole drilling.

MAXRAD

Technical Data

Maximum Power: 10 watts
Polarization: Vertical
Nominal Impedance: 50 ohms
VSWR: < 2.0:1
Lightning Protection: DC grounded
Cable: 10' (1.8 m) bottom-feed RG-174
Termination: Male SMA with RG-174 cable SMB plug or jack with RG-174 cable Alternative connector configurations available.
Mounting Method: Double sided VHB acrylic foam tape.

For detailed specifications,
visit <http://antenna.pctel.com>.

Antenna Electrical Specifications

Model	Frequency Range	Gain
MTOW8200**	824-960 MHz	Unity

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Temperature Range
MTOW8200**	1.25" H x 4.0" D (31.75 x 101.6 mm)	12 oz (0.34 kg)	-40° to +85° C

**Please specify connector preference when ordering.

Integrated Connector Antennas

The MAXRAD MN integrated connector antennas provide a simple and cost effective solution for the 900 MHz ISM band. Featuring an N male connector built into the base, these antennas mount easily to any N female bulkhead or panel mount connector. The MN antennas are available with a bright or black chrome finish rod that is removable from the base.

Features

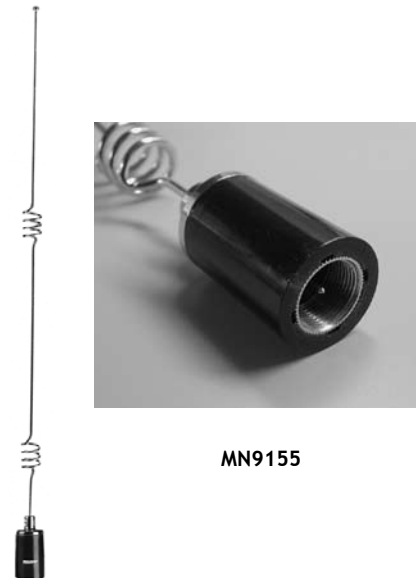
- UV-stable polycarbonate base allows years of trouble-free use even in harsh environments
- Broadband frequency coverage. A single antenna covers the entire 900 MHz ISM band
- Integrated N, male connector. Eliminates the use of an adapter by allowing direct application to many types of radios

Antenna Electrical Specifications

Model	Frequency Range	Gain
(B)MN9153	902-928 MHz	3 dB (with a ground plane)
(B)MN9155	902-928 MHz	5 dB (with a ground plane)

Mechanical Specifications

Model	Antenna Height
(B)MN9153	13.2"
(B)MN9155	22.5"



MN9155

MAXRAD

Technical Data

Maximum Power: 100 watts
Polarization: Vertical, linear
Nominal Impedance: 50 ohms
VSWR: < 1.5:1
Base: Molded Makrolon polycarbonate; black
Radiator Material: .100" diameter, 17-7 PH stainless steel rod; bright or black chrome finish
Bushing: Nickel plated brass
Mount Method: N male connector built in

For detailed specifications, visit <http://antenna.pctel.com>.

*Prefix "B" indicates black.



WIMAX ANTENNAS

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2.3-2.7 GHz 65° Beamwidth Sector Antenna **NEW**

This WiMAX antenna is designed to cover frequencies from 2300 to 2700 MHz. It offers excellent front-to-back ratio of > 32 dB with a VSWR of less than 1.5 in a rugged, off-white UV resistant plastic radome.

Features

- Outstanding front-to-back ratio.
- VSWR of less than 1.5.
- Adjustable pipe mount.



Antenna Electrical Specifications

Model	Frequency Range	Nominal Gain	Azimuth Beamwidth	Elevation Beamwidth
SP2327-17XP65	2300-2500 MHz	16.0 dBi +/- 0.5 dB	65° +/- 5°	7°
	2500-2700 MHz	16.5 dBi +/- 0.5 dB	65° +/- 5°	7°
SP2327-18XP65	2300-2500 MHz	17.5 dBi +/- 0.5 dB	65° +/- 5°	5°
	2500-2700 MHz	18 dBi +/- 0.5 dB	65° +/- 5°	5°

Mechanical Specifications

Model	Temperature Range	Dimensions (L X W X D)	Wind Survivability
SP2327-17XP65	-40°C to 70°C storage / -40°C to 55°C operating	28" L x 7" W x 3" D (1219 x 177 x 76 mm)	125 mph (200 km/h)
SP2327-18XP65	-40°C to 70°C storage / -40°C to 70°C operating	48" L x 7" W x 3" D (711 x 177 x 76 mm)	125 mph (200 km/h)

MAXRAD

Technical Data

Polarization: Linear dual slant +/- 45°
Nominal Impedance: 50 ohms
VSWR: < 1.5
Front to Back Ratio: > 32 dB
Radome Material: Off-white UV resistant plastic
Connector: Type N female
Mounting Method: Adjustable pipe mount bracket (included)

For detailed specifications, visit <http://antenna.pctel.com>.



2.3-2.7 GHz 60° Beamwidth Sector Antenna ^{NEW}

This WiMAX antenna is designed to cover frequencies from 2300 to 2700 MHz. It offers excellent front-to-back ratio of > 32 dB with a VSWR of less than 1.5 in a rugged, off-white UV resistant plastic radome.

Features

- Outstanding front-to-back ratio.
- VSWR of less than 1.5.
- Adjustable pipe mount.

MAXRAD

Antenna Electrical Specifications

Model	Frequency Range	Nominal Gain	Azimuth Beamwidth	Elevation Beamwidth
SP2327-17XP60	2300-2500 MHz	16.0 dBi +/- 0.5 dB	60° +/- 5°	7°
	2500-2700 MHz	16.5 dBi +/- 0.5 dB	60° +/- 5°	7°

Technical Data

Polarization: Linear dual slant +/- 45°
Nominal Impedence: 50 ohms
VSWR: < 1.5
Front to Back Ratio: > 32 dB
Radome Material: Off-white UV resistant plastic
Connector: Type N female
Mounting Method: Adjustable pipe mount bracket (included)

Mechanical Specifications

Model	Temperature Range	Dimensions (L X W X D)	Weight (Mass)	Wind Survivability
SP2327-17XP60	-40°C to 70°C storage	28" L x 7" W x 3" D	7 lbs	125 mph
	-40°C to 55°C operating	(1219 x 177 x 76 mm)	(3.1 kg)	(200 km/h)

For detailed specifications, visit <http://antenna.pctel.com>.

3.3-3.8 GHz 60° Beamwidth Sector Antenna **NEW**

This WiMAX antenna is designed to cover frequencies from 3300 to 3800 MHz. It offers excellent front-to-back ratio of > 32 dB with a VSWR of less than 1.5 in a rugged, off-white UV resistant plastic radome.

Features

- Outstanding front-to-back ratio.
- VSWR of less than 1.5.
- Adjustable pipe mount.



Antenna Electrical Specifications

Model	Frequency Range	Nominal Gain	Azimuth Beamwidth	Elevation Beamwidth
SP3338-17XP60	3300-3800 MHz	16.5 dBi +/- 0.5 dB	60° +/- 5°	7°

MAXRAD

Mechanical Specifications

Model	Temperature Range	Dimensions (L X W X D)	Wind Survivability
SP3338-17XP60	-40°C to 70°C storage / -40°C to 70°C operating	28" x 7" x 3" (711 mm x 177 mm x 76 mm)	125 mph (200 km/h)

Technical Data

Polarization: Linear dual slant +/- 45°
Nominal Impedence: 50 ohms
VSWR: < 1.5
Front to Back Ratio: > 32 dB
Radome Material: Off-white UV resistant plastic
Connector: Type N female
Mounting Method: Adjustable pipe mount bracket (included)

For detailed specifications,
visit <http://antenna.pctel.com>.



3.3-3.8 GHz 65° Beamwidth Sector Antenna NEW

This WiMAX antenna is designed to cover frequencies from 3300 to 3800 MHz. It offers excellent front-to-back ratio of > 32 dB with a VSWR of less than 1.5 in a rugged, off-white UV resistant plastic radome.

Features

- Outstanding front-to-back ratio.
- VSWR of less than 1.5.
- Adjustable pipe mount.

MAXRAD

Antenna Electrical Specifications

Model	Frequency Range	Nominal Gain	Azimuth Beamwidth	Elevation Beamwidth
SP3338-17XP65	3300-3800 MHz	16.5 dBi +/- 0.5 dB	65° +/- 5°	7°

Technical Data

Polarization: Linear dual slant +/- 45°
Nominal Impedance: 50 ohms
VSWR: < 1.5
Front to Back Ratio: > 32 dB
Radome Material: Off-white UV resistant plastic
Connector: Type N female
Mounting Method: Adjustable pipe mount bracket (included)

Mechanical Specifications

Model	Temperature Range	Dimensions	Weight (Mass)	Wind Survival
SP2327-16XP	-40°C to 70°C storage / -40°C to 70°C operating	28" x 7" x 3" (711 mm x 177 mm x 76 mm)	7 lbs (3.1 kg)	125 mph (200 km/h)

For detailed specifications,
visit <http://antenna.pctel.com>.

2.3-2.7 GHz Adjustable Azimuth Beamwidth Dual Slant Polarization Sector Antenna ^{NEW}

This WiMAX antenna is designed to cover frequencies from 2300 to 2700 MHz with a VSWR of less than 1.5. Port-to-port isolation of typically ≥ 25 dB. This panel provides field adjustable azimuth beamwidth of 60°, 90° and 120°.

Features

- Adjustable multiple beamwidth sectors of 60°, 90° and 120°.
- Outstanding front-to-back ratio.
- Adjustable pipe mount included permits uplift or downtilt of $\pm 15^\circ$ for more precise coverage of the geographic area.



SP2327-17XPAB

Antenna Electrical Specifications

Model	Frequency Range	Nominal Gain	Azimuth Beamwidth	Elevation Beamwidth
SP2327-17XPAB	2300-2700 MHz	14, 15.5, 16.5 dBi ± 0.5 dB	60°, 90°, 120°	7°

Mechanical Specifications

Model	Temperature Range	Dimensions	Weight (Mass)	Wind Survival
SP2327-17XPAB	-30°C to 75°C operating	36" L x 4" W x 3" D (914 x 101 x 76 mm)	6 lbs (2.7 kg)	125 mph (200 km/h)

MAXRAD

Technical Data

Polarization: Linear dual slant $\pm 45^\circ$
Nominal Impedance: 50 ohms
VSWR: < 1.5
Front to Back Ratio: Typical > 28 dB
Structure: Ultra high strength extruded aluminum
Radome Material: Gray UV resistant plastic
Connector: Type N female
Mounting Method: Fully adjustable pipe mount (included)

For detailed specifications, visit <http://antenna.pctel.com>.



This antenna is designed to cover frequencies from 2.4 GHz to 2.5 GHz and 4.9 GHz to 5.9 GHz. Its slim, low profile housing and pipe mount provide added mounting flexibility for locations where space availability is limited.

MAXRAD

Technical Data

General Specifications: Dual band, dual input sector panel antenna
Polarization: Vertical
Nominal Impedance: 50 ohms
VSWR: < 1.5:1 (2400-2500 MHz) < 1.7:1 (4925-5925 MHz)
Radome Material: Sky Gray UV resistant plastic
Lighting Protection: Each input DC grounded
Termination: 2.4 to 2.5 GHz N female bulkhead 4.9 to 5.9 GHz N female bulkhead
Mounting Method: Adjustable mount Pipe mount included

For detailed specifications, visit <http://antenna.pctel.com>.

Dual Band, Dual Input Sector Panel Antenna

The MSPDBDI244914NF sector panel antenna provides coverage of 2.4 GHz to 2.5 GHz and 4.9 GHz to 5.9 GHz frequencies in a single antenna housing. Its dual N female bulkhead inputs permit simultaneous operation of 4.9 GHz Public Safety, 802.11a, b, g and WiMAX radio devices. This antenna features a rugged UV resistant housing and includes a pipe mount for outdoor installations.

Features

- Covers 2.4 to 2.5 GHz and 4.9 to 5.9 GHz frequencies with excellent VSWR performance.
- Outstanding front-to-back ratio and controlled sidelobe radiation ensures that the radiated energy is targeted towards the area of coverage.
- Included adjustable pipe mount permits uptilt, downtilt or vertical adjustment of +/-15 degrees for more precise coverage of the geographic area.
- Slim, low profile housing and included pipe mount provide added mounting flexibility for locations where space availability is limited.
- High isolation design - outstanding for both bands. 68 dB is typical when antennas are radially spaced and used for omnidirectional coverage (typically 3 antennas are used radially spaced, 120° apart).

Antenna Electrical Specifications

Model	Frequency Range	Nominal Gain	Nominal Isolation (radially spaced 120° apart)
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MSPDBDI244914NF	2400-2500 MHz	14 dBi +/- 0.5	- 68 dB
	4925-5925 MHz	14 dBi +/- 0.5	- 68 dB

Model	Frequency Range	Horizontal Plane Beamwidth	E-Plane Beamwidth	Front-to-Back Ratio
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MSPDBDI244914NF	2400-2500 MHz	90°	15°	> 32 dB
	4925-5925 MHz	120°	8°	> 32 dB

Mechanical Specifications

Model	Dimensions	Weight (Mass)
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MSPDBDI244914NF	36" L x 5.5" W x 3" D (91.4 x 13.9 x 7.6 cm)	6 lbs (13.2 kg)
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Temperature Range	Rated Wind Velocity	Lateral Thrust at Rated Wind	Equivalent Flat Plate Area
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-30°C to +75°C	125 mph	67 lbf	0.68 ft²
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Symmetric 60° Sector Panel Antennas

These symmetric 60° sector panel antennas are designed for wireless broadband applications operating in the ISM/UNII-3 band (5725-5825 MHz), including 802.11A and HiperLAN2. They provide 60° minimum azimuth and elevation beamwidth and can be oriented for vertical or horizontal polarization. Their compact size and 10 dBi gain performance make them ideal for WIPOP transmit sites in wireless point-to-multipoint applications. They are available with a bulkhead N female connector or a coaxial pigtail.

Features

- Ultra compact, low profile design. Excellent antenna solution for wireless installations where space is limited.
- Ultra compact, high efficiency design provides 10 dBi gain performance while maintaining a symmetrical 60° x 60° beamwidth in both vertical and horizontal planes, with a cross-polarization discrimination of less than 25 dB. Ideal for wireless UNII-3 installations.
- Can be oriented for vertical or horizontal polarization in heavily congested installations where multipath and noise obstructions can be a problem.
- Available with bulkhead N female connector or N male coax pigtail (model MP58010 only).

Antenna Electrical Specifications

Model	Frequency Range	Gain	Horizontal Beamwidth at 1/2 Power	Vertical Beamwidth at 1/2 Power
MP52010NF	5.15-5.35 GHz	9.5 dBi	60°	60°
MP58010NF	5.7-5.82 GHz	10 dBi	60°	60°
MP58010PTNM	5.72-5.82 GHz	9.5 dBi	60°	60°

Model	Front-to-Back Ratio	Nominal Cross-Polarization
MP52010NF	-32 dB	< -25 dB
MP58010NF	-32 dB	< -25 dB
MP58010PTNM	-32 dB	< -25 dB

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Temperature Range
MP52010NF	1.25" L x 2.69" OD (20.32 x 69 mm)	8 oz	-40°C to 70°C
MP58010NF	1.25" L x 2.69" OD (20.32 x 69 mm)	8 oz	-40°C to 70°C
MP58010PTNM	1.25" L x 2.69" OD (20.32 x 69 mm)	1.8 lbs	-40°C to 70°C



Symmetric 60° Sector Panel Antennas

MAXRAD

Technical Data

General Specifications: Symmetric 60° sector panel antennas
Maximum Power Input: 5 watts
Polarization: Linear, vertical or horizontal (installer selectable)
Nominal Impedance: 50 ohms
VSWR: < 1.5:1
Radome Material: UV stable ABS
Lightning Protection: DC grounded
Survival Wind Rating: 125 mph
Cable: 5' (1524 mm) LMR400 (MP58010PTNM only)
Connector: N male (model MP58010PTNM with 5' LMR400 cable) N female bulkhead (model MP58010NF and MP52010NF)
Mounting Method: Includes heavy duty mast mounting bracket Can also be wall mounted

For detailed specifications, visit <http://antenna.pctel.com>.



WISP4959018MBV

MAXRAD

Wideband Adjustable Sector Panel Antenna

The MAXRAD sector panel antennas cover frequencies of 4.9-6.0 GHz and are designed for use in sectorized WISP applications using a single sector or multiple sector antennas and multiple radios. They offer cost conscious antennas and system's engineers an alternative to wall mounted omnidirectional antennas that can be susceptible to multipath interference and reduced coverage caused by wall-obstructed radiated signals. These sector antennas are ideal for use in apartment complexes, offices, medical facilities, schools, industrial parks and shopping centers.

Features

- The antennas offer a choice of 45°, 60°, 90° or 120° single beamwidth sector. Multiple antennas can be utilized to cover several geographical sectors using additional radios. Great for use in place of an obstructed wall mounted omni.
- Industry leading front-to-back ratios. Ensure that the radiated energy is focused towards its target, and not to the back or sides of the antennas.
- Attractive, streamline design reduces wind loading for easier handling during installation.
- Includes adjustable pipe mount that permits uptilt or downtilt adjustment for more precise coverage of the geographic area.

Technical Data

General Specifications: 2.4 GHz sector panel antennas
Maximum Power Input: 10 watts
Polarization: Vertical
Nominal Impedance: 50 ohms
VSWR: < 1.7:1
Color: White
Radome Material: UV resistant ASA plastic
Lighting Protection: DC grounded
Mounting Method: Adjustable pipe mount (included) +/- 15° of uptilt or downtilt (WISP2800 & WISP4900 models)

For detailed specifications, visit <http://antenna.pctel.com>.

Antenna Electrical Specifications

Model	Frequency Range	Nominal Gain (+/- 0.5)	Horizontal Plane Beamwidth
WISP4959018MBV	4.9 GHz to 6.0 GHz	18 dBi @ 45° 16 dBi @ 60° 15 dBi @ 90° 14 dBi @ 120°	45°, 60°, 90° or 120° (adjustable)
E-Plane Beamwidth	Front-to-Back Ratio	Typical Cross Poll Discrimination	
8°	> 32 dB	> 20 dB	

Mechanical Specifications

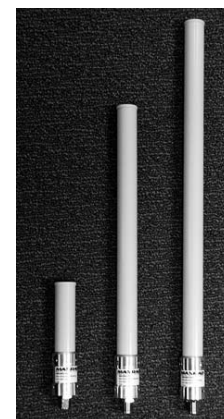
Model	Dimensions	Weight (Mass)	Temperature Range
WISP4959018MBV	24" L x 6" W x 3" D (609 L x 152 W x 76 mm D)	4.5 lbs (2.1 Kg)	-30° C to 75° C
Rated Wind Velocity	Lateral Thrust at Rated Wind	Equivalent Flat Plate Area	
125 mph	60 lbf without flaps 120 lbf with flaps	.44 ft² without flaps 1.36 ft² with flaps	

5.15-5.85 GHz Mast Mount Omnidirectional (MMO) Antennas

The MMO series base antenna provides outstanding coverage in a rugged U.V. stable, plastic radome with an aluminum base that is ideal for indoor or outdoor applications.

Features

- Covers 5.15-5.85 GHz frequencies for a wide variety of indoor and outdoor applications.
- Pipe mount is included for added convenience.



MMO 5.8 GHz series antennas

Antenna Electrical Specifications

Model	Frequency Range	Nominal Gain	H-plane Beamwidth	E-plane Beamwidth
MMO24580608	2.4-2.48/ 5.15-5.85 GHz	6 dBi/ 8 dBi	360°	22° / 15°
MMO58004NF	5.15-5.85 GHz	4 dBi	360°	30°
MMO58007NF	5.15-5.85 GHz	7 dBi	360°	12°
MMO58010NF	5.15-5.85 GHz	10 dBi	360°	10°

Mechanical Specifications

Model	Antenna Height	Weight (Mass)	Bending Moment at Rated Wind	Lateral Thrust at Rated Wind	Equivalent Flat Plane Area
MMO245880608	26" (660.4 mm)	0.50 lbs (0.226 kg)	11.5 ft-lbs	10.6 lbs	0.12 ft ²
MMO58004NF	5" (127 mm)	12 oz (0.34 kg)	0.4 ft-lbs	2.0 lbs	0.2 ft ²
MMO58007NF	14" (355.6 mm)	1 lb (0.45 kg)	3.3 ft-lbs	5.7 lbs	0.6 ft ²
MMO58010NF	18.5" (469.9 mm)	1.1 lbs (0.50 kg)	5.8 ft-lbs	7.6 lbs	0.9 ft ²

MAXRAD

Technical Data

Maximum Power: 25 watts
Polarization: Vertical linear
Normal Impedance: 50 ohms
VSWR: < 2.0:1
Wind Survival: 125 mph
Radome Material: White UV stable plastic
Connector: Type N female
Mounting Method: Pipe mount (included).

For detailed specifications, visit <http://antenna.pctel.com>.



MFB49009



MFB58009



Vented System



White MAXRAD Fiberglass Base Station (MFB) Omnidirectional Antennas

The wireless broadband omnidirectional antennas are designed to provide maximum performance and reliability under the toughest weather conditions. These antennas feature a UV stable, vented radome that provides ultimate protection against weather elements. They can be mast or wall mounted.

Features

- UV stable, pultruded fiberglass radome. Allows outdoor installation even in harsh climates.
- Vented system design. Provides reliable performance by protecting the electrical design against extreme moisture and/or temperatures.
- Thread relief on connector. Improved accessibility for taping reduces installation time and improves overall effectiveness.
- Internal o-ring seal in the base of the antenna with integrated connector at the base. Assures a watertight seal to prevent water from migrating into the antenna connector.
- Electrical downtilt options on select models. Provide system planners flexibility in challenging operating environments.



MMK1924



MMK8A

Technical Data

Maximum Power: 25 watts
Polarization: Vertical
Normal Impedance: 50 ohms
VSWR: < 1.5:1
Radome Material: UV resistant pultruded fiberglass
Lightning Protection: Not standard, but all models can be ordered with DC grounding. Add "DC" to the part number to order the antenna with DC grounding.
Termination: N female. N male connector option available. To order, add "NM" to part number. N female, reverse polarity and reverse threaded connectors optional on most models. 16" RG-213 pigtail with N female connector.
Mounting Base Diameter: 1.25 inches
Mounting Method: MMK1924 - L bracket mount for wall or pipe mount MMK8A - Aluminum extruded bracket for mast mounting MMK11 - Ceiling mount bracket

For detailed specifications, visit <http://antenna.pctel.com>.

Antenna Electrical Specifications

Model	Frequency Range	Gain	Bandwidth @ 1.5:1 VSWR	Vertical Beamwidth @ 1/2 Power
MFB25007	2500-2700 MHz	7 dBi	200 MHz	13°
MFB25007DT3	2500-2700 MHz	7 dBi	200 MHz	13°
MFB49009	4.9-5.0 GHz	9 dBi	100 MHz	8°
MFB51510	5.15-5.35 GHz	10 dBi	200 MHz	7°
MFB58009	5.725-5.875 GHz	9 dBi	150 MHz	8°
MFB58009PTNM	5.725-5.825 GHz	9 dBi	100 MHz	6°

Mechanical Specifications

Model	Height	Weight (Mass)	Bending Moment at Rated Wind	Lateral Thrust at Rated Wind	Equivalent Flat Plate Area	Wind Survival
MFB25007	20.2" (513.1 mm)	0.50 lbs (0.226 kg)	4.4 ft-lbs	5.2 lbs	.06 ft ²	125 mph
MFB25007DT3	20.2" (513.1 mm)	0.50 lbs (0.226 kg)	4.4 ft-lbs	5.2 lbs	.06 ft ²	125 mph
MFB49009	20.2" (513.1 mm)	0.5 lbs (0.226 kg)	4.4 ft-lbs	5.2 lbs	.06 ft ²	125 mph
MFB51510	20.2" (513.1 mm)	0.5 lbs (0.226 kg)	4.4 ft-lbs	5.2 lbs	.06 ft ²	125 mph
MFB58009	15.7" (398.8 mm)	0.43 lbs (0.195 kg)	2.7 ft-lbs	4.1 lbs	.046 ft ²	125 mph
MFB58009PTNM	20.2" (513.1 mm)	0.5 lbs (0.226 kg)	4.4 ft-lbs	5.2 lbs	.06 ft ²	125 mph



Small housing panels
are 5.1" H x 4.7" W x 1.5" D



13 dBi panel on
MPAB12 corner wall mount



Small housing panel on
MPAB11 wall mount



MP24018XFPT

MAXRAD

Technical Data

General Specifications: Directional panel antennas
Maximum Power Input: See Electrical Specifications
Polarization: Linear, vertical/horizontal
Nominal Impedance: 50 ohms
VSWR: See Electrical Specifications
Radome Material: UL 94-V0 plastic
Cable: See Mechanical Specifications
Connector Options: N female (part #NF) standard. Other connector options are available. Consult factory.

For detailed specifications,
visit <http://antenna.pctel.com>.

Directional Panel Antennas for Indoor or Outdoor Applications

These directional panel antennas are designed to cover PCS, 4.9 GHz Public Safety band, 2.4 GHz and 5.8 GHz ISM frequencies, obtaining maximum gain in an attractive, low-profile package. All models provide efficient and stable performance across their specified bands and can be mounted indoors or outdoors. Multi-band models covering public safety and 802.11a/b/g standards are available.

Features

- Printed circuit board design provides the best performance-to-price ratio.
- UL94-V0 plastic and PC board. Provides UL's high flame retardant rating allowing maximum placement flexibility and meeting stringent building fire rating codes.
- Attractive, low profile housing. Blends well with indoor and outdoor environments where aesthetic considerations are important.
- Corner exit RG-58/U pigtail design (PCS and 2.4 GHz models), .141 semi-rigid (5.1 and 5.8 GHz models), and high performance Plenum Rated ML195 (dual band models). Permits the linear polarized panel to be mounted in vertical or horizontal polarity with a wide variety of connectors.
- Optional UL 910 rated Plenum cable. Allows the cable to be installed in any indoor mounting location, including air ducts.
- Adjustable mounting brackets for indoor and outdoor mounting. Provide maximum flexibility for indoor or outdoor installations.

Mounting Method

Model/Mount	MPAB7	MPAB8	MPAB10	MPAB11	MPAB12
MP24008XFPT	N/A	N/A	N/A	included	optional
MP24012CPLXFPT	optional	optional	N/A	optional	optional
MP24013XFPT	optional	optional	N/A	optional	optional
MP24580809PT	N/A	N/A	N/A	included	optional
MP24581820PT	optional	optional	optional	N/A	N/A
MP24018XFPT	optional	optional	optional	N/A	N/A
MP495913XFPT	N/A	N/A	N/A	included	optional
MP58013XFPT	N/A	N/A	N/A	included	optional
MP51513XFPT	N/A	N/A	N/A	included	optional
Mount Description	Heavy duty outdoor adjustable mount with +/-35° uptilt/downtilt. If used with MP24018XFPT the mount provides +/-18° uptilt/downtilt. Same as MPAB8 but bracket is longer.	Heavy duty outdoor adjustable mount with 17° uptilt/downtilt. If used with MP24018XFPT the mount provides +/-9° uptilt/downtilt.	Heavy duty outdoor adjustable mount +/-20° uptilt/downtilt and +/-90° polarity. Includes DSS satellite style house bracket.	Short adjustable indoor mount. It may be used outdoors with small housing panels only.	Long adjustable indoor corner mount.

Antenna Electrical Specifications

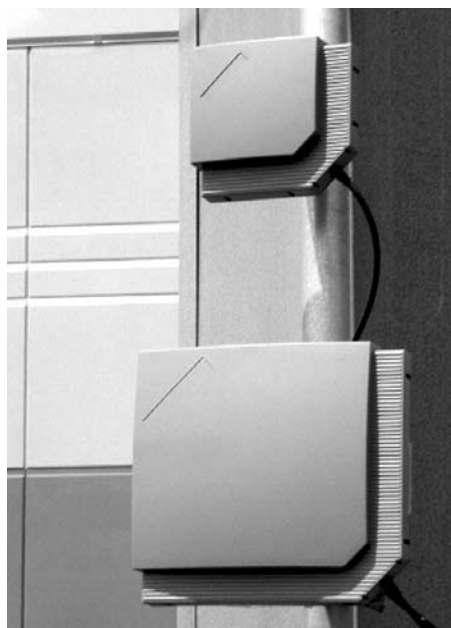
Model	Frequency Range	Gain	3 dB Horizontal Beamwidth	3 dB Vertical Beamwidth	Front-to-Back Ratio	Max. Power Input	VSWR
MP24008XFPT	2.30-2.50 GHz	8.5 dBi	60°	60°	> 15 dB	20 watts	< 1.5:1
MP24012CPLXFPT	2.30-2.50 GHz	12.0 dBiC	35°	35°	> 20 dB	20 watts	< 1.5:1
MP24013XFPT	2.30-2.50 GHz	13.0 dBi	35°	35°	> 18 dB	20 watts	< 1.5:1
MP24018XFPT	2.30-2.50 GHz	18.0 dBi	18°	19°	> 25 dB	20 watts	< 1.5:1
MP24580809PT	2.40-2.48/ 4.94-5.85 GHz	8 dBi/ 9 dBi	60°/50°	60°/40°	> 22 dB/ > 15 dB	25 watts	< 2.0:1/ < 2.0:1
MP24581820PT	2.40-2.48/ 4.94-5.85 GHz	18 dBi/ 20 dBi	21°/9°	21°/9°	> 30 dB/ > 25 dB	25 watts	< 2.0:1/ < 2.0:1
MP51513XFPT	5.15-5.35 GHz	13.0 dBi	42°	27°	> 23 dB	20 watts	< 1.5:1
MP58013XFPT	5.72-5.87 GHz	12.5 dBi	42°	28°	> 23 dB	20 watts	< 1.5:1
MP495913XFPT	4.9-5.9 GHz	13.0 dBi	40°	27°	> 25 dB	25 watts	< 1.5:1

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Temperature Range	Wind Loading (Frontal) @100 mph Wind	Cable
MP24008XFPT	5.1" x 4.7" x 1.5" (12.9 x 11.9 x 3.8 cm)	0.5 lbs (0.23 kg)	-40°C to +70°C	9.3 lbs	12" (30.5 cm) RG58/U**
MP24012CPLXFPT	8.8" x 8.1" x 1.6" (22.4 x 20.6 x 4.06 cm)	1.2 lbs (0.54 kg)	-40°C to +70°C	27.9 lbs	12" (30.5 cm) RG58/U**
MP24013XFPT	8.8" x 8.1" x 1.6" (22.4 x 20.6 x 4.06 cm)	1.2 lbs (0.54 kg)	-40°C to +70°C	27.9 lbs	12" (30.5 cm) RG58/U**
MP24018XFPT	15.1" x 13.9" x 1.9" (38.4 x 35.3 x 4.8 cm)	3.9 lbs (1.8 kg)	-40°C to +70°C	85 lbs	12" (30.5 cm) RG58/U**
MP24580809PT	5.1" x 4.7" x 1.5" (12.9 x 11.9 x 3.8 cm)	0.5 lbs (0.23 kg)	-40°C to +70°C	9.3 lbs	12" (30.5 cm) ML195*
MP24581820PT	15.1" x 13.9" x 1.9" (38.4 x 35.3 x 4.8 cm)	3.9 lbs (1.8 kg)	-40°C to +70°C	85 lbs	12" (30.5 cm) .141 semi-rigid*
MP51513XFPT	5.1" x 4.7" x 1.5" (12.9 x 11.9 x 3.8 cm)	0.5 lbs (0.23 kg)	-40°C to +70°C	9.3 lbs	6" (15.25 cm) .141 semi-rigid*
MP58013XFPT	5.1" x 4.7" x 1.5" (12.9 x 11.9 x 3.8 cm)	0.5 lbs (0.23 kg)	-40°C to +70°C	9.3 lbs	6" (15.25 cm) .141 semi-rigid*
MP495913XFPT	5.1" x 4.7" x 1.5" (12.9 x 11.9 x 3.8 cm)	0.5 lbs (0.23 kg)	-40°C to +70°C	9.3 lbs	6" (15.25 cm) Pro-Flex PLUS 195

* Plenum Rated cable

** UL910 Plenum Rated cable optional for these models



WISP Directional Panels

MAXRAD

Technical Data

General Specifications: Directional panel antennas
Maximum Power Input: 20 watts
Polarization: Linear, vertical/horizontal
Nominal Impedance: 50 ohms
VSWR: < 1.6:1
Radome Material: UV stable plastic
Cable: 12" RG58/U with attached female N connector
Temperature Range: -40°C to +70°C

For detailed specifications, visit <http://antenna.pctel.com>.

WISP Directional Panel Antennas

The directional panel antennas are designed to provide maximum gain at 2.4 GHz frequencies. With a VSWR of less than 1.6:1, all models provide efficient and stable performance across the band. These robust antennas are designed for outdoor applications.

Features

- Patented printed circuit board design. Best performance-to-price ratio.
- Attractive, low profile UV stable housing. Blends well with indoor and outdoor environments where aesthetic considerations are important.
- Corner exit RG-58/U pigtail design. Permits the panel to be mounted in vertical or horizontal polarity.
- Adjustable mounting brackets for outdoor mounting. Provide maximum flexibility for outdoor installations.

Antenna Electrical Specifications

Model	Frequency Range	Gain	3 dB Horizontal Beamwidth	3 dB Vertical Beamwidth	Front-to-Back Ratio
WISP24009PTNF	2.3-2.5 GHz	9.0 dBi	60°	60°	> 15 dB
WISP24013PTNF	2.3-2.5 GHz	13.0 dBi	35°	35°	> 18 dB
WISP24018PTNF	2.3-2.5 GHz	18.0 dBi	18°	19°	> 25 dB

Mechanical Specifications

Model	Dimensions Range	Weight (Mass)	Temperature Range	Frontal Wind Loading @100 mph
WISP24009PTNF	5.1" x 4.7" x 1.5"	0.5 lbs	-40°C to +70°C	9.3 lbs
WISP24013PTNF	8.8" x 8.1" x 1.6"	1.2 lbs	-40°C to +70°C	27.9 lbs
WISP24018PTNF	15.1" x 13.9" x 1.9"	3.9 lbs	-40°C to +70°C	85 lbs

Mounting Method

Model	Included Mount
WISP24009PTNF	Indoor/outdoor articulating mount
WISP24013PTNF	Heavy duty outdoor adjustable mount
WISP24018PTNF	Heavy duty outdoor adjustable mount

Enclosed Yagi Antenna Series

The MYP directional yagis can be used as bridge antennas between two networks or for point-to-point communications. They are field adjustable for vertical or horizontal polarization with matched principal plane beamwidths for optimum performance in either orientation. This design also provides improved front-to-back ratio and sidelobe suppression that reduces interference. All models feature a robust mounting structure for consistent performance regardless of weather conditions.

Features

- Field adjustable to allow vertical or horizontal polarity. Eliminates co-channel interference from neighboring radiators. Polarity markings molded on the antenna ensure installation in the correct orientation.
- Optional, articulating mount. Allows precise adjustment of the antenna both vertically and horizontally.
- All antennas include a robust mast mount bracket designed to withstand 125 mph wind.
- Matched principal plane beamwidths with excellent sidelobe suppression and cross-polarization rejection of more than 20 dB. Provides superior signal quality with enhanced gain performance and minimal interference from neighboring radiators.
- 30 dB front-to-back ratio permits less physical separation on the tower thus adding mounting flexibility at installation sites where space is limited.
- Attractive weather-proof radome constructed of UV resistant material. Provides robust and trouble-free use in harsh outdoor environments.



MYP24015PT



MYP24010PT



MYK18

MAXRAD

Antenna Electrical Specifications

Model	Frequency Range	Nominal Gain	Horizontal Beamwidth @ 1/2 Power	Vertical Beamwidth @ 1/2 Power	Front-to-Back Ratio
MYPB24015PT	2400-2686 MHz	15 dBi	30°	30°	30 dB

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Lateral Thrust at Rated Wind	Equivalent Flat Plate Area
MYPB24015PT	14" L x 3" OD (356 x 76 mm)	1 lb (0.5 kg)	18.3 lbs	0.20 ft ²

Accessories

Model	Description
MSK2450MN	Stacking harness for two 2.4 GHz MYP directional yagis. N male connector.
MSK2450MSMA	Stacking harness for two 2.4 GHz MYP directional yagis. Male SMA connector.

Technical Data

General Specifications: 2.4 GHz ISM enclosed yagi antenna series
Maximum Power: 5 watts
Polarization: Vertical or horizontal, linear (user adjustable)
Nominal Impedance: 50 ohms
VSWR: < 1.5:1
Wind Survival: 125 mph
Cable: 12" (305 mm) Pro-Flex™ Plus 195
Termination: N, female is standard Consult factory for other connector options
Mounting Method: Heavy duty yagi mounting bracket (included) permits mast mounting on masts up to 2" O.D. MYK18 adjustable wall/pipe mount allows 180° (included angle) azimuth and elevation adjustment (sold separately.) Stacking harnesses available to stack two yagis (sold separately.)

For detailed specifications, visit <http://antenna.pctel.com>.



The MPRW series of parabolic reflector antennas provide wideband coverage in frequencies ranging from 4.9 GHz to 6.0 GHz.



The MPR's compact and light weight spun aluminum reflector provides maximum parabola accuracy for more consistent and reliable antenna performance. Its robust mounting structure prevents bending and oscillation that can cause signal degradation.

MAXRAD

Wideband Parabolic Reflector Antennas

The prime focus parabolic reflector antennas utilize leading edge technology that suppresses extraneous sidelobe and cross-polarized energy and directs the radiated signal towards its target area of coverage. The result is outstanding coverage with high gain and minimum interference. These antennas provide wideband coverage of frequencies ranging from 4.9 GHz to 6 GHz without additional tuning. They can be mounted for vertical or horizontal polarization and feature a micro fine azimuth and elevation adjustment mechanism for easy path alignment.

Features

- Leading edge technology suppresses unnecessary sidelobes and directs all energy towards its target area of coverage thus minimizing interference and providing outstanding data throughput.
- Wideband coverage allows the use of one antenna to cover all frequencies ranging from 4.9 GHz to 6.0 GHz.
- Extremely robust mounting structure. Mount is bolted to the dish in an eight star pattern that provides the optimum number of mounting points to firmly secure the dish. This design prevents reflector distortion and oscillation due to windy conditions thus providing better signal throughput.
- Micro adjustable azimuth and elevation mechanism. Allows user to properly align the antenna to ensure maximum performance and signal throughput.
- Compact and light weight, high grade spun aluminum reflector. Provides maximum parabola accuracy for more consistent and reliable antenna performance. Its compact design permits pipe, wall or tower leg mounting even in locations where space is limited.
- Extremely durable design. Larger roll on the edge of the dish vastly increases strength and prevents bending when vertical pressure is applied.
- UPS shippable. Shipping box dimensions are 27.5" x 27.5" x 10.5", totalling less than 108" girth and width for reduced shipping and storage costs (24" parabolic dish only).

Technical Data

General Specifications: Prime focus, wideband parabolic reflector antennas
Maximum Power Input: 5 watts
Polarization: Vertical or horizontal, linear (installer selectable)
Nominal Impedance: 50 ohms
VSWR: < 1.5:1
Cable: N female bulkhead 5' (1,524 mm) LMR400 (MPR58028UPTNM only)
Termination: N, male (MPR58028UPTNM only) N, female bulkhead (All other models) Cable jumper optional
Mounting Method: Accommodates 1.25" to 2.38" pipe OD Can be tower leg or wall mounted

For detailed specifications, visit <http://antenna.pctel.com>.

Antenna Electrical Specifications

Model	Frequency Range	Gain	Nominal Gain	Maximum Sidelobe Level	Vertical and Horizontal Beamwidth	Front-to-Back Ratio
MPRW49027*	4.9 - 6.0 GHz	n/a	27 dBi @ 4.9 GHz 28 dBi @ 5.25 GHz 29 dBi @ 5.8 GHz	-18 dB	5.9°	-35 dB
MPRW49029*	4.9 - 6.0 GHz	n/a	29 dBi @ 4.9 GHz 30 dBi @ 5.25 GHz 31 dBi @ 5.8 GHz	-23 dB	4.7°	-35 dB
MPRW49031*	4.9 - 6.0 GHz	n/a	31 dBi @ 4.9 GHz 32 dBi @ 5.25 GHz 33 dBi @ 5.8 GHz	-20 dB	4.0°	-35 dB
MPR51528	5.15-5.35 GHz	28 dBi	n/a	-18 dB	6.2°	-35 dB
MPR51532	5.15-5.35 GHz	32 dBi	n/a	-18 dB	4.3°	-35 dB
MPR58028UPTNM	5.725-5.825 GHz	28 dBi	n/a	-18 dB	4.7°	-35 dB
MPR58029	5.725-5.825 GHz	29 dBi	n/a	-18 dB	5.9°	-35 dB
MPR58031	5.725-5.825 GHz	31 dBi	n/a	-18 dB	4.7°	-35 dB

Mechanical Specifications

Model	Diameter	Weight (Mass)	Temperature Range	Lateral Thrust at Rated Wind	Equivalent Flat Plate Area	Wind Survival with 1/2" of ice
MPRW49027*	24" (609 mm)	8.5 lbs (3.8 kg)	-40°C to +80°C	327 lbs	3.6 ft ²	110 mph
MPRW49029*	29" (736 mm)	9.0 lbs (4.08 kg)	-30°C to +60°C	396 lbs	5.7 ft ²	110 mph
MPRW49031*	36" (914 mm)	9.5 lbs (4.08 kg)	-40°C to +80°C	738 lbs	8.2 ft ²	110 mph
MPR51528	24" (609 mm)	8.5 lbs (3.8 kg)	-40°C to +80°C	327 lbs	3.6 ft ²	110 mph
MPR51532	36" (914 mm)	9.5 lbs (4.08 kg)	-40°C to +80°C	738 lbs	8.2 ft ²	110 mph
MPR58028UPTNM	29" (736 mm)	9.0 lbs (4.08 kg)	-30°C to +60°C	396 lbs	5.7 ft ²	110 mph
MPR58029	24" (609 mm)	8.5 lbs (3.8 kg)	-40°C to +80°C	327 lbs	3.6 ft ²	110 mph
MPR58031	29" (736 mm)	9.0 lbs (4.08 kg)	-30°C to +60°C	396 lbs	5.7 ft ²	110 mph



Parabolic Grid Antennas

The MAXRAD parabolic grid antennas cover the 2.4-2.7 GHz ISM bands and are designed for use in wireless ISP applications requiring minimum wind loading and maximum durability. They provide WISP's cost-effective antenna solutions for high volume CPE deployments. These grid antennas are ideal for point-to-point or wireless bridging applications.

Features

- Zinc plated cold rolled steel with polyester powder coat finish provides maximum protection against the elements for long lasting performance.
- High gain performance in a compact design provides maximum value and reliability for WISP wireless bridging applications.

MAXRAD

Technical Data

General Specifications: 2.4-2.7 GHz parabolic grid antennas
Polarization: Vertical and horizontal
Nominal Impedance: 50 ohms
VSWR: < 1.5:1
Grid Material: Zinc plated cold rolled steel with polyester powder coat
Lighting Protection: DC grounded
Termination: 24" low loss 240 cable with N female connector
Mounting Method: Standard U-bolt steel mast clamp complete with mounting hardware. Designed for masts of up to 2.5" O.D.

Antenna Electrical Specifications

Model	Frequency Range	Gain	Horizontal Plane Beamwidth	Vertical Plane Beamwidth	Front-to-Back Ratio
WISP24019PTNF	2.4-2.7 GHz	19 dBi	16°	11°	> 20 dB
WISP24021PTNF	2.4-2.7 GHz	21 dBi	12°	10°	> 22 dB
WISP24024PTNF	2.4-2.7 GHz	23.5 dBi	7°	9°	> 24 dB

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Operating Temperature	Wind Load	Azimuth Tilt Adjustment
WISP24019PTNF	24" L x 17" W x 11" H	3 lbs	-40°C to +80°C	16 lbs	80°
WISP24021PTNF	32" L x 23" W x 11" H	4 lbs	-40°C to +80°C	22 lbs	80°
WISP24024PTNF	34" L x 29" W x 19" H	6 lbs	-40°C to +80°C	40 lbs	80°

For detailed specifications,
visit <http://antenna.pctel.com>.

Cable Assemblies and Accessories

Cable Assemblies

Model	Description
MCA195NFXMSMAR7	7 inch Pro-Flex™ Plus 195 cable assembly with type N female and Alvarion special male SMA connector. Note Alvarion special male SMA connector can be used with regular SMA connectors.
MCA400NMNM5	LMR400 cable assembly 5 ft. with N male and N male connectors.
MCA400NMNM10	LMR400 cable assembly 10 ft. with N male and N male connectors.
MCA400NMNM20	LMR400 cable assembly 20 ft. with N male and N male connectors.
MCA400NMNF5	LMR400 cable assembly 5 ft. with N male and N female connectors.
MCA400NMNF10	LMR400 cable assembly 10 ft. with N male and N female connectors.



MPD243NF



WISPMNMNM

Cable Accessories

Model	Description
MPD243NF	2.4 GHz, 3-way RF power divider with type N female connectors. This is a water-proof O-ring sealed heavy duty outdoor splitter.
WISPMNMNM	Amphenol™ N male to N male adapter. This is used to connect two N female cable assemblies together.
MGB	Grounding block. Grounded N female pass through connector and mounting bracket. Low cost way to make your installation meet National Electrical Codes without using a lightning arrestor.
MLP24RPC	Lightning arrestor. Designed for maximum lightning capacity, no maintenance and minimum insertion loss and VSWR covering the 2.4 GHz ISM band. Includes Reverse Polarity male/female TNC connectors only.



MGB Grounding Block



MPD243NF



NON CELLULAR DIRECTIONAL BASE STATION ANTENNAS

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Adjustable or Fixed Sector Panel Antennas

The MSP series sector panel covers the 2.4 GHz ISM band and provides field adjustable horizontal beamwidths of 45°, 60°, 90° or 120°. This unique design allows a system installer to stock a single antenna and field adjust it to the desired beamwidth, making it useful for wireless broadband applications where coverage of a geographical sector is desired. The panel can also be ordered with fixed beamwidths. This line also includes a compact 90° sector model that measures less than 8 inches long, for installations where space is very limited.

In many applications, sector panels are used to provide omnidirectional coverage by using, for example, three radios and three 120° sector antennas to provide 360° coverage. This results in a stronger and more focused signal than that of a single omnidirectional antenna. It also provides a more robust design. The MSP24013MB features industry leading front-to-back ratios of more than 42 dB at 45°, 60° and 90° and over 32 dB at 120° with excellent cross pole discrimination.

Features

- Adjustable multiple beamwidth sectors. A single antenna can be utilized to cover several geographical sectors.
- Three sectors with three data radios can be installed as an array for omnidirectional coverage. Provides a stronger, more focused signal than that of a standard omnidirectional antenna.
- Industry leading front-to-back ratios. Ensures that the radiated energy is focused towards its target, and not to the back or sides of the antenna.

MAXRAD

Technical Data

General Specifications: 2.4 GHz sector panel antennas
Maximum Power Input: 50 watts
Polarization: Vertical
Nominal Impedance: 50 ohms
VSWR: < 1.5:1
Radome Material: Off white ASA plastic with UV resistance
Lighting Protection: DC grounded
Connector Options: Type N, female. Other connector options available
Mounting Method: Adjustable stainless steel bracket, +/- 11° of uptilt or downtilt Pipe diameter: 0.75 thru 2.4" OD (19-60 mm)

For detailed specifications, visit <http://antenna.pctel.com>.



The MSP24013MB allows horizontal beamwidth adjustments without having to replace the antenna. Its overall design is one of the most compact currently available on the market.



MSP24013MB



Sector panel on adjustable bracket

Antenna Electrical Specifications

Model	Frequency Range	Nominal Gain	Horizontal Plane Beamwidth	E-Plane Beamwidth	Front-to-Back Ratio	Typical Cross Poll Discrimination
MSP24013MB	2400-2500 MHz	13 dB @ 120° 14 dBi @ 90° 16 dBi @ 60° 17 dBi @ 45°	120°, 90°, 60° and 45°	16°	> 32 dB @ 120° > 42 dB @ 90° > 42 dB @ 60° > 42 dB @ 45°	270°-0°, 0°-90° = -20 dB 235°-270°, 90°-135° = -28 dB 180°-235°, 135°-180° = -32 dB
MSP24013-120	2400-2500 MHz	13 dBi	120°	16°	> 32 dB	(all models) 270°-0°, 0°-90° = -20 dB 235°-270°, 90°-135° = -28 dB 180°-235°, 135°-180° = -32 dB
MSP24014-90	2400-2500 MHz	14 dBi	90°	16°	> 42 dB	
MSP24016-60	2400-2500 MHz	16 dBi	60°	16°	> 42 dB	
MSP24017-45	2400-2500 MHz	17 dBi	45°	16°	> 42 dB	
MSP2401090PT	2400-2500 MHz	10 dBi	90°	35°	> 32 dB	> 20 dB

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Temperature Range	Rated Wind Velocity	Lateral Thrust at Rated Wind
MSP24013MB	21.5" L x 6.5" W x 2.8" D (546 x 16.5 x 7.2 mm)	4 lbs (1.8 kg)	-30° C to +75° C	125 mph (200 km/h)	43 lbs (19.5 kg)
MSP24013-120	21.5" L x 6.5" W x 2.8" D (546 x 16.5 x 7.2 mm)	4 lbs (1.8 kg)	-30° C to +75° C	125 mph (200 km/h)	43 lbs (19.5 kg)
MSP24014-90	21.5" L x 6.5" W x 2.8" D (546 x 16.5 x 7.2 mm)	4 lbs (1.8 kg)	-30° C to +75° C	125 mph (200 km/h)	43 lbs (19.5 kg)
MSP24016-60	21.5" L x 6.5" W x 2.8" D (546 x 16.5 x 7.2 mm)	4 lbs (1.8 kg)	-30° C to +75° C	125 mph (200 km/h)	43 lbs (19.5 kg)
MSP24017-45	21.5" L x 6.5" W x 2.8" D (546 x 16.5 x 7.2 mm)	4 lbs (1.8 kg)	-30° C to +75° C	125 mph (200 km/h)	43 lbs (19.5 kg)
MSP2401090PT	8.0" L x 6.5" W x 2.8" D (203 x 16.5 x 7.2 mm)	3 lbs (1.3 kg)	-30° C to +75° C	125 mph (200 km/h)	43 lbs (19.5 kg)

2.4 GHz Shaped Beam Sector Panel Antennas

The MSB2401690 sector panel antenna provides coverage of 2.4 GHz to 2.5 GHz frequencies with a VSWR of less than 1.5:1. Its pattern shaping technology provides optimum signal coverage.

Features

- Covers 2.4 to 2.5 GHz frequencies with excellent VSWR performance.
- Engineered high performance design provides a pattern shaping feature that allows installers to contour coverage where needed.
- Outstanding front-to-back ratio ensures that the radiated energy is targeted towards the area of coverage.
- Included adjustable pipe mount permits uptilt or downtilt adjustment of +/-15 degrees for more precise coverage of the geographic area.



MSB2401690

Antenna Electrical Specifications

Frequency Range	Nominal Gain	Horizontal Plane Beamwidth	E-Plane Beamwidth	Front-to-Back Ratio	Typical Cross Poll Discrimination
2400-2500 MHz	16 dBi +/- 0.5	90°	8°	> 28 dB	20 dB

Mechanical Specifications

Rated Wind Velocity	Dimensions	Weight (Mass)	Temperature Range	Equivalent Flat Plate Area	Lateral Thrust at Rated Wind
125 mph	36" L x 4" W x 3" D (914 x 101 x 76 mm)	6.5 lbs (2.9 Kg)	-30° C to 75° C	.66 ft ²	60 lbf

MAXRAD

Technical Data

General Specifications: 16 dBi shaped beam sector antenna
Maximum Power Input: 30 watts
Polarization: Vertical
Nominal Impedance: 50 ohms
VSWR: < 1.5:1
Radome Material: White UV resistant plastic
Lighting Protection: DC grounded High strength aluminum extrusion
Cable: Optional LMR400 terminated with N plug
Termination: N female bulkhead Optional 5 ft. jumper terminated with N male
Mounting Method: Adjustable mount Pipe mount included

For detailed specifications, visit <http://antenna.pctel.com>.

ISM Horizontally Polarized Adjustable Sector Panel Antennas



The WISP model antennas horizontally polarized sector panel antenna allows horizontal beamwidth adjustments of 45°, 60°, 90° and 120° without having to replace the antenna.



WISP24013120PTNF



WISP2401490PTNF

The horizontal polarization sector panel provides coverage of 2.4 GHz to 2.5 GHz and 2.7 GHz to 2.9 GHz frequencies with a VSWR performance of less than 1.5:1. Its design provides superior front-to-back ratio performance that ensures that the radiated energy is focused towards its coverage area.

Two models are available that provide vertical or horizontal polarization options, both featuring field adjustable horizontal beamwidths of 60° or 90°. Their efficient gain performance and compact UV resistant housing provide outstanding coverage and maximum installation flexibility where tower space is limited. In addition, they include an adjustable pipe mount that permits +/-15° uptilt or downtilt of the antenna to adjust to the requirements of the coverage area.

Features

- Adjustable multiple beamwidth sectors of 45°, 60°, 90° and/or 120°
- Outstanding front-to-back ratio ensures that the radiated energy is targeted towards the area of coverage, and not out of it where it could be prone to interference.
- Included adjustable pipe mount permits uptilt or downtilt adjustment of +/-15° for more precise coverage of the geographic area.
- Models are available for vertical and horizontal polarization.
- Industry leading front-to-back ratios. Ensure that the radiated energy is focused towards its target, and not to the back or sides of the antennas.
- Attractive, streamline design reduces wind loading for easier handling during installation.

MAXRAD

Technical Data

General Specifications:
Horizontal polarization sector panel antenna User adjustable beamwidth. Optional 45° director flaps sold separately.
Maximum Power Input:
20 watts (WISP24017MBH only) 30 watts (All models except WISP24017MBH)
Polarization:
Horizontal Vertical (WISP28016MBV only)
Nominal Impedance: 50 ohms
VSWR: < 1.5:1
Radome Material: Gray UV resistant plastic
Lighting Protection: DC grounded
Backplane: High strength aluminum extrusion
Termination: N, female bulkhead
Mounting Method: Adjustable pipe mount (included)

For detailed specifications, visit <http://antenna.pctel.com>.

Antenna Electrical Specifications

Model	Frequency Range	Nominal Gain +/- .5	Horizontal Plane Beamwidth	E-Plane Beamwidth	Front-to-Back Ratio	Typical Cross Poll Discrimination
WISP24017MBH	2400-2500 MHz	13, 14, 16 or 17 dBi user selectable	120°, 90°, 60°, 45°	15°	> 30 dB @ 120°, 90°, 60° > 26 dB @ 45°	> 26 dB
WISP2401490PTNF	2.4-2.48 GHz	14 dBi	90°	14°	> 23 dB	> 20 dB
WISP24013120PTNF	2.4-2.48 GHz	13 dBi	120°	16°	> 23 dB	> 20 dB
WISP28016MBH	2700-2900 MHz	16 dBi @ 60° 14 dBi @ 90°	90° or 60° (adjustable)	13°	> 25 dB	> 20 dB
WISP28016MBV	2700-2900 MHz	16 dBi @ 60° 14 dBi @ 90°	90° or 60° (adjustable)	13°	> 35 dB	> 20 dB

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Temperature Range	Rated Wind Velocity	Lateral Thrust at Rated Wind	Equivalent Flat Plate Area
WISP24017MBH	24" L x 7" W x 3" D (609 x 178 x 76 mm)	4.5 lbs (2.1 Kg)	-30° C to 75° C	125 mph	60 lbf without flaps 120 lbf with flaps	.44 ft ² without flaps 1.36 ft ² with flaps
WISP2401490PTNF	19.8" L x 3.1" W x 1.5" D	2.5 lbs	-30° C to 75° C	125 mph	25.4 lbf @ 125 mph	0.28 ft ²
WISP24013120PTNF	19.8" L x 3.1" W x 2.2" D	2.5 lbs	-30° C to 75° C	125 mph	25.4 lbf @ 125 mph	0.28 ft ²
WISP28016MBH	24" L x 4" W x 3" D (without flaps) (609 x 101 x 76 mm) 24" L x 6" W x 3" D (with flaps)	4.5 lbs (2.1 Kg)	-30° C to 75° C	125 mph	40 lbf without flaps 104 lbf with flaps	.44 ft ² without flaps 1.16 ft ² with flaps
WISP28016MBV	24" L x 4" W x 3" D (without flaps) (609 x 101 x 76 mm) 24" L x 6" W x 3" D (with flaps)	4.5 lbs (2.1 Kg)	-30° C to 75° C	125 mph	40 lbf without flaps 104 lbf with flaps	.44 ft ² without flaps 1.16 ft ² with flaps



MPMB80621MPTC on MPAB12 mount



MPMB80621MPTC on MPAB8 heavy duty bracket

MAXRAD

AMPS, PCS, GSM and DCS Quad Band Directional Panel Antennas

This directional panel antenna is designed to cover 806-960 MHz and 1710-2170 MHz frequencies, obtaining maximum gain in an attractive, low-profile package.

This antenna provides efficient and stable performance across the AMPS, PCS, GSM, DCS 1800 and UMTS bands and can be mounted indoors or outdoors.

Features

- Highly efficient antenna element provides high performance in an attractive, compact housing.
- UL94-V0 plastic and PC board. Provides UL's high flame retardant rating allowing maximum placement flexibility. Meets stringent building fire rating codes.
- Attractive, low profile housing. Blends well with indoor and outdoor environments where aesthetic considerations are important.
- Optional adjustable mounting brackets for indoor and outdoor mounting. Provide maximum flexibility for indoor or outdoor installations.

Technical Data

Maximum Power Input: 20 watts
Polarization: Linear, vertical
Nominal Impedance: 50 ohms
VSWR: < 2.0:1
Radome Material: UL 94-V0 plastic
Cable: 3' (91.4 cm) RG-58/U
Connector: TNC male
Mounting Method Wall or mast mount
Mounting Options (mounts sold separately): MPAB11 short adjustable indoor mount MPAB12 long adjustable indoor corner mount MPAB7 heavy duty outdoor adjustable mount with +/-35° uptilt/downtilt adjustment MPAB8 heavy duty outdoor adjustable mount with 17° uptilt/downtilt adjustment

Antenna Electrical Specifications

Model	Frequency Range	Gain	Horizontal Beamwidth	Vertical Beamwidth	Front-to-Back Ratio
MPMB80621MPTC	806-960 MHz	7 dBi	70°	67°	> 15 dB
	1710-2170 MHz	7.5 dBi	75°	55°	> 20 dB

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Temperature Range	Wind Loading (Frontal) @ 100 mph Wind
MPMB80621MPTC	8.8" x 8.1" x 1.6" (22.4 x 20.6 x 4.06 cm)	1.2 lbs (0.54 kg)	-40°C to +70°C	27.9 lbs

For detailed specifications, visit <http://antenna.pctel.com>.

800/900 MHz Directional Panel Antennas

These directional panel antennas are designed to cover 800/900 MHz and 2.4 GHz frequencies with a VSWR of less than 1.5:1, obtaining maximum gain with an attractive, low-profile package. All models provide efficient and stable performance across the band and can be mounted indoors or outdoors.

Features

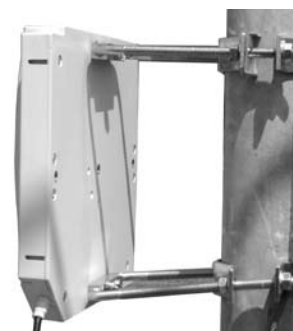
- Highly efficient antenna element provides high performance in an attractive, compact housing.
- UL94-V0 plastic and PC board. Provides UL's high flame retardant rating allowing maximum placement flexibility. Meets stringent building fire rating codes.
- Attractive, low profile housing. Blends well with indoor and outdoor environments where aesthetic considerations are important.
- Corner exit RG-58/U pigtail design. Permits the linear polarized panel to be mounted in vertical or horizontal polarity with a wide variety of connectors.
- Optional UL 910 rated Plenum cable. Allows the cable to be installed in the strictest indoor mounting locations, including air ducts.
- Optional adjustable mounting brackets for indoor and outdoor mounting. Provide maximum flexibility for indoor or outdoor installations.



MP series antenna



MP8066XFPT on MPAB12 mount



MP8066XFPT on
MPAB8 heavy duty bracket

Technical Data

Maximum Power Input: 20 watts
Polarization: Linear, vertical/horizontal (all models but MP9026CPLXFPT and MP9026CPRXFPT) Left hand circular (MP9026CPLXFPT only) Right hand circular (MP9026CPRXFPT only)
Nominal Impedance: 50 ohms
VSWR: < 1.5:1
Radome Material: UL 94-V0 plastic
Cable: 12" (30.5 cm) RG-58/U (UL910 rated cable optional)
Connector: N female standard. Other options: (add connector part # after PT:) Example: MP8066XFPTBN (panel with BNC connector) Male BNC (part #BN) Female N (part #NF) Male N (part #NM) Female SMA (part #FSMA) Male SMA (part #MSMA) Female SMA, reverse threaded (part #FSMART) Male SMA, reverse threaded (part #MSMART) Reverse polarity TNC plug (part #MRPC) Male TNC (part #C) Male Mini-UHF (part #PL) Female FME (part #FFME)
Mounting Options: MPAB11 short adjustable indoor mount MPAB12 long adjustable indoor corner mount MPAB7 heavy duty outdoor adjustable mount with +/-35° uptilt/downtilt adjustment MPAB8 heavy duty outdoor adjustable mount with 17° uptilt/downtilt adjustment

For detailed specifications, visit <http://antenna.pctel.com>.

MAXRAD

Panel Base Station Antennas

Antenna Electrical Specifications

Model	Frequency Range	Gain	3 dB Horizontal Beamwidth	3 dB Vertical Beamwidth	Front-to-Back Ratio
MP8066XFPT	806-960 MHz	6 dB	70°	60°	> 17 dB
MP8906XFPT	890-960 MHz	6.5 dB	70°	60°	> 17 dB
MP9027XFPT	902-928 MHz	7 dB	65°	65°	> 17 dB
MP9026CPLXFPT	902-928 MHz	6.4 dBdc	65°	65°	> 20 dB
MP9026CPRXFPT	902-928 MHz	6.4 dBdc	65°	65°	> 20 dB
MP19008XFPT	1.85-1.99 GHz	8.0 dBi	90°	60°	> 15 dB
MP19013XFPT	1.85-1.99 GHz	12.5 dBi	40°	35°	> 18 dB

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Temperature Range	Wind Loading (Frontal) @ 100 mph Wind
MP8066XFPT	8.8" x 8.1" x 1.6" (22.4 x 20.6 x 4.06 cm)	1.2 lbs (0.54 kg)	-40°C to +70°C	27.9 lbs
MP8906XFPT	8.8" x 8.1" x 1.6" (22.4 x 20.6 x 4.06 cm)	1.2 lbs (0.54 kg)	-40°C to +70°C	27.9 lbs
MP9027XFPT	8.8" x 8.1" x 1.6" (22.4 x 20.6 x 4.06 cm)	1.2 lbs (0.54 kg)	-40°C to +70°C	27.9 lbs
MP9026CPLXFPT	8.8" x 8.1" x 1.6" (22.4 x 20.6 x 4.06 cm)	1.2 lbs (0.54 kg)	-40°C to +70°C	27.9 lbs
MP9026CPRXFPT	8.8" x 8.1" x 1.6" (22.4 x 20.6 x 4.06 cm)	1.2 lbs (0.54 kg)	-40°C to +70°C	27.9 lbs
MP19008XFPT	5.1" x 4.7" x 1.5" (12.9 x 11.9 x 3.8 cm)	0.5 lbs (0.23 kg)	-40°C to +70°C	9.3 lbs
MP19013XFPT	8.8" x 8.1" x 1.6" (22.4 x 20.6 x 4.06 cm)	1.2 lbs (0.54 kg)	-40°C to +70°C	27.9 lbs

800/900 MHz Directional Panel Antennas with Printed Circuit Design

These 800/900 MHz directional panel antennas utilize a printed circuit design that provides 7.5 dBi gain in a small, low-profile package. Three models cover frequencies from 806 MHz to 960 MHz with a VSWR of less than 1.5:1 and no tuning required. Their sturdy UV stable radome withstands extreme environmental conditions, including exposure to UV radiation and extreme humidity.

Features

- PCB design utilized in three models that cover all 800/900 MHz frequencies with no tuning required. Provides best performance-to-price ratio with fewer sku requirements.
- Attractive, low profile housing. Blends well with indoor environments where aesthetic considerations are important.
- Adjustable mounting bracket for wall and corner mounting. Provides maximum installation flexibility.

MAXRAD

Technical Data

Power Input: 50 watts
Polarization: Vertical, linear
Nominal Impedance: 50 ohms
VSWR: < 1.5:1
Radome Material: UV-stable, ASA - ABS
Back Plate Material: Weather resistant aluminum
Cable: 12" (30.5 cm) RG-58/U
Connector Options: (add connector part number after the PT prefix) Example: MP8066PTBN (Model MP8066PT with BNC, male connector) BNC, Male (part #BN) N, female (part #NF) N, male (part #NM) Female SMA (part #FSMA) Male SMA (part #MSMA) Female SMA, reverse threaded (part #FSMART) Male SMA, reverse threaded (part #MSMART) TNC, Male (part #C) Reverse Polarity TNC plug (part #MRPC) Mini-UHF, male (part #PL) Female FME (part #FFME)
Mounting Method: Adjustable wall/corner mount



MP9159PT



MP8066PT



MPAB3 Mount



MPAB4 Mount

For detailed specifications, visit <http://antenna.pctel.com>.

Antenna Electrical Specifications

Model	Frequency Range	Gain	3 dB Horizontal Beamwidth	3 dB Vertical Beamwidth	Front-to-Back Ratio
MP8066PT	806-866 MHz	8 dBi	90°	60°	15 dB
MP8068PT*	806-960 MHz	7.9 dBi	35°	65°	15 dB
MP8246PT	824-896 MHz	8 dBi	90°	60°	15 dB
MP8906PT	890-960 MHz	8 dBi	90°	60°	15 dB
MP9159PT	902-928 MHz	11 dBi	35°	65°	15 dB

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Temperature Range	Wind Loading (Frontal) @ 100 mph Wind	Wind Survival
MP8066PT	8.6" W x 7.8" H x 2.2" D (21.8 x 19.8 x 5.7 cm)	1 lb (0.45 kg)	-40° C to +52° C	27.1 lbs (12.3 kg)	100 mph
MP8068PT*	16.4" W x 9" H x 2.7" D (41.6 x 22.9 x 6.9 cm)	2 lbs (0.91 kg)	-40° C to +52° C	51.2 lbs (23.2 kg)	100 mph
MP8246PT	8.6" W x 7.8" H x 2.2" D (21.8 x 19.8 x 5.7 cm)	1 lb (0.45 kg)	-40° C to +52° C	27.1 lbs (12.3 kg)	100 mph
MP8906PT	8.6" W x 7.8" H x 2.2" D (21.8 x 19.8 x 5.7 cm)	1 lb (0.45 kg)	-40° C to +52° C	27.1 lbs (12.3 kg)	100 mph
MP9159PT	16.4" W x 9" H x 2.7" D (41.6 x 22.9 x 6.9 cm)	2 lb (0.92 kg)	-40° C to + 52° C	51.2 lbs (23.2 kg)	100 mph

* Please specify connector option when ordering.

2.4 GHz ISM, Vertical and Horizontally Polarized Directional Panel Antenna Series

The MP directional panel antennas are designed to cover frequencies between 2300 and 2500 MHz with a VSWR of less than 1.5:1, obtaining maximum gain with a small, low profile package. These antennas provide efficient and stable performance across the band and can be mounted in a wide variety of indoor or outdoor locations.

Features

- High performance PCB design. Provides best performance-to-price ratio.
- Attractive, low profile housing. Blends well where aesthetic considerations are crucial.
- Vertical and horizontally polarized models available. Provides maximum placement flexibility.

Antenna Electrical Specifications

Model	Frequency Range	Gain	3 dB Horizontal Beamwidth	3 dB Vertical Beamwidth	Front-to-Back Ratio
MP24015PT	2.3-2.5 GHz	15 dBi	40°	19°	> 25 dB
MP24016HPT	2.3-2.5 GHz	16 dBi	40°	23°	> 25 dB

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Temperature Range	Wind Loading (Frontal) @100 mph Wind
MP24015PT	7.3" W x 13.8" H x 1.5" D (185.4 x 350.5 x 38.1 mm)	1.2 lbs 0.54 kg	-51°C to +71°C	39.8 lbs
MP24016HPT	7.3" W x 13.8" H x 1.5" D (185.4 x 350.5 x 38.1 mm)	1.2 lbs 0.54 kg	-51°C to +71°C	39.8 lbs



(Left) MP24015PT or MP24016HPT (mast mounted)
(Right) Panel on MPAB4 adjustable mount

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Technical Data

General Specifications: Directional panel antennas
Maximum Power Input: 20 watts
Polarization: Vertical, linear (can be adjusted with an optional MPAB4 mount) Vertical, horizontal (model MP24016HPT only)
Nominal Impedance: 50 ohms
VSWR: < 1.5:1
Radome Material: UV-stable, beige ASA - ABS
Lightning Protection: DC grounded
Cable: 12" of RG-58/U
Connector Options: (add connector part # after PT) Example: MP24015PTBN (Model 24015PT with a pigtail and BNC connector) BNC (part #BN) Female N (part #NF) Male N (part #NM) Female SMA (part #FSMA) Male SMA (part #MSMA) Female SMA, reverse threaded (part #FSMART) Male SMA, reverse threaded (part #MSMART) Reverse polarity TNC plug (part #MRPC) TNC plug (part #C) Mini-UHF (part #PL) FME (part #FFME)
Mounting Method: Mounting mast/pipe bracket included. Adjustable MPAB4 mounting bracket is optional.

For detailed specifications, visit <http://antenna.pctel.com>.



The MPRW series of parabolic reflector antennas provide wideband coverage in frequencies ranging from 4.9 GHz to 6.0 GHz.



The MPR's compact and light weight spun aluminum reflector provides maximum parabola accuracy for more consistent and reliable antenna performance. Its robust mounting structure prevents bending and oscillation that can cause signal degradation.

MAXRAD

Wideband Parabolic Reflector Antennas

The prime focus parabolic reflector antennas utilize leading edge technology that suppresses extraneous sidelobe and cross-polarized energy and directs the radiated signal towards its target area of coverage. The result is outstanding coverage with high gain and minimum interference. These antennas provide wideband coverage of frequencies ranging from 4.9 GHz to 6 GHz without additional tuning. They can be mounted for vertical or horizontal polarization and feature a micro fine azimuth and elevation adjustment mechanism for easy path alignment.

Features

- Leading edge technology suppresses unnecessary sidelobes and directs all energy towards its target area of coverage thus minimizing interference and providing outstanding data throughput.
- Wideband coverage allows the use of one antenna to cover all frequencies ranging from 4.9 GHz to 6.0 GHz.
- Extremely robust mounting structure. Mount is bolted to the dish in an eight star pattern that provides the optimum number of mounting points to firmly secure the dish. This design prevents reflector distortion and oscillation due to windy conditions thus providing better signal throughput.
- Micro adjustable azimuth and elevation mechanism. Allows user to properly align the antenna to ensure maximum performance and signal throughput.
- Compact and light weight, high grade spun aluminum reflector. Provides maximum parabola accuracy for more consistent and reliable antenna performance. Its compact design permits pipe, wall or tower leg mounting even in locations where space is limited.
- Extremely durable design. Larger roll on the edge of the dish vastly increases strength and prevents bending when vertical pressure is applied.
- UPS shippable. Shipping box dimensions are 27.5" x 27.5" x 10.5", totalling less than 108" girth and width for reduced shipping and storage costs (24" parabolic dish only).

Technical Data

General Specifications: Prime focus, wideband parabolic reflector antennas
Maximum Power Input: 5 watts
Polarization: Vertical or horizontal, linear (installer selectable)
Nominal Impedance: 50 ohms
VSWR: < 1.5:1
Cable: N female bulkhead 5' (1,524 mm) LMR400 (MPR58028UPTNM only)
Termination: N, male (MPR58028UPTNM only) N, female bulkhead (All other models) Cable jumper optional
Mounting Method: Accommodates 1.25" to 2.38" pipe OD Can be tower leg or wall mounted

For detailed specifications, visit <http://antenna.pctel.com>.

Antenna Electrical Specifications

Model	Frequency Range	Gain	Nominal Gain	Maximum Sidelobe Level	Vertical and Horizontal Beamwidth	Front-to-Back Ratio	Typical Cross-Pol at Boresite
MPRW49027*	4.9 - 6.0 GHz	n/a	27 dBi @ 4.9 GHz 28 dBi @ 5.25 GHz 29 dBi @ 5.8 GHz	-18 dB	5.9°	-35 dB	> -28
MPRW49029*	4.9 - 6.0 GHz	n/a	29 dBi @ 4.9 GHz 30 dBi @ 5.25 GHz 31 dBi @ 5.8 GHz	-23 dB	4.7°	-35 dB	> -28
MPRW49031*	4.9 - 6.0 GHz	n/a	31 dBi @ 4.9 GHz 32 dBi @ 5.25 GHz 33 dBi @ 5.8 GHz	-20 dB	4.0°	-35 dB	> -28
MPR51528	5.15-5.35 GHz	28 dBi	n/a	-18 dB	6.2°	-35 dB	
MPR51532	5.15-5.35 GHz	32 dBi	n/a	-18 dB	4.3°	-35 dB	
MPR58028UPTNM	5.725-5.825 GHz	28 dBi	n/a	-18 dB	4.7°	-35 dB	
MPR58029	5.725-5.825 GHz	29 dBi	n/a	-18 dB	5.9°	-35 dB	
MPR58031	5.725-5.825 GHz	31 dBi	n/a	-18 dB	4.7°	-35 dB	
MPR58033	5.725-5.825 GHz	33 dBi	n/a	-18 dB	4.0°	-35 dB	

Mechanical Specifications

Model	Diameter	Weight (Mass)	Temperature Range	Lateral Thrust at Rated Wind	Equivalent Flat Plate Area	Wind Survival with 1/2" of ice
MPRW49027*	24" (609 mm)	8.5 lbs (3.8 kg)	-40°C to +80°C	327 lbs	3.6 ft ²	110 mph
MPRW49029*	29" (736 mm)	9.0 lbs (4.08 kg)	-30°C to +60°C	396 lbs	5.7 ft ²	110 mph
MPRW49031*	36" (914 mm)	9.5 lbs (4.08 kg)	-40°C to +80°C	738 lbs	8.2 ft ²	110 mph
MPR51528	24" (609 mm)	8.5 lbs (3.8 kg)	-40°C to +80°C	327 lbs	3.6 ft ²	110 mph
MPR51532	36" (914 mm)	9.5 lbs (4.08 kg)	-40°C to +80°C	738 lbs	8.2 ft ²	110 mph
MPR58028UPTNM	29" (736 mm)	9.0 lbs (4.08 kg)	-30°C to +60°C	396 lbs	5.7 ft ²	110 mph
MPR58029	24" (609 mm)	8.5 lbs (3.8 kg)	-40°C to +80°C	327 lbs	3.6 ft ²	110 mph
MPR58031	29" (736 mm)	9.0 lbs (4.08 kg)	-30°C to +60°C	396 lbs	5.7 ft ²	110 mph
MPR58033	36" (914 mm)	9.5 lbs (4.08 kg)	-40°C to +80°C	738 lbs	8.2 ft ²	

* Wideband Coverage



MAXRAD

Technical Data

General Specifications: 2.4 GHz ISM Prime Focus Parabolic Reflector Antennas
Maximum Power: 5 watts
Polarization: Vertical or horizontal, linear (user selectable)
Nominal Impedance: 50 ohms
VSWR: < 1.5:1
Wind Survival with 1/2 inch of ice: 110 mph
Cable: 15"(381 mm) RG303/U
Termination: N, female or Reverse Polarity TNC
Mounting Method: Accommodates 1.25" to 2.38" pipe OD Can be tower leg mounted

For detailed specifications, visit <http://antenna.pctel.com>.

ISM Prime Focus Parabolic Reflector Antennas

These prime focus parabolic reflector antennas utilize leading edge technology that suppresses extraneous sidelobe and cross-polarized energy and directs the radiated signal towards its target area of coverage. The result is outstanding coverage with high gain and minimum interference. These antennas can be mounted for vertical or horizontal polarization and feature a micro fine azimuth and elevation adjustment mechanism that provides a stronger, better focused signal.

Features

- Leading edge technology suppresses unnecessary sidelobes and directs all energy towards its target area of coverage thus minimizing interference and providing outstanding data throughput.
- Extremely robust mounting structure. Mount is bolted to the dish in an eight star pattern that provides the optimum number of mounting points to firmly secure the dish. This design prevents reflector distortion and oscillation due to windy conditions thus providing better signal throughput.
- Micro adjustable azimuth and elevation mechanism. Allows user to properly align the antenna to ensure maximum performance and signal throughput at 2.4 frequencies.
- Compact and light weight, high grade spun aluminum reflector. Provides maximum parabola accuracy for more consistent and reliable antenna performance. Its compact design permits pipe or tower leg mounting even in locations where space is limited.
- Extremely durable design. Larger roll on the edge of the dish vastly increases strength and prevents bending when vertical pressure is applied.
- UPS shippable. Shipping box dimensions are 27.5" x 27.5" x 10.5", totalling less than 108" girth and width for reduced shipping and storage costs (24 inch dish only.)

Antenna Electrical Specifications

Model	Frequency Range	Gain	Maximum Sidelobe Level	Vertical and Horizontal Beamwidth	Front-to-Back Ratio
MPR24021PT	2.4-2.5 GHz	21 dBi	-18 dB	12.5°	-27 dB
MPR24025PT	2.4-2.5 GHz	25 dBi	-18 dB	8.8°	-27 dB

Mechanical Specifications

Model	Diameter	Weight (Mass)	Temperature Range	Lateral Thrust at Rated Wind	Equivalent Flat Plate Area
MPR24021PT	24" (609 mm)	8.5 lbs (3.8 kg)	-40°C to +80°C	327 lbs	3.6 ft ²
MPR24025PT	36" (914 mm)	9.5 lbs (4.3 kg)	-40°C to +80°C	738 lbs	8.2 ft ²

MYP Enclosed Yagi Antenna Series

The MYP directional yagis can be used as bridge antennas between two networks or for point-to-point communications. They are field adjustable for vertical or horizontal polarization with matched principal plane beamwidths for optimum performance in either orientation. This design also provides improved front-to-back ratio and sidelobe suppression that reduces interference. All models feature a robust mounting structure for consistent performance regardless of weather conditions.

Features

- Field adjustable to allow vertical or horizontal polarity. Eliminates co-channel interference from neighboring radiators. Polarity markings molded on the antenna ensure installation in the correct orientation.
- Optional, articulating mount. Allows precise adjustment of the antenna both vertically and horizontally.
- All antennas include a robust mast mount bracket designed to withstand 125 mph wind.
- Matched principal plane beamwidths with excellent sidelobe suppression and cross-polarization rejection of more than 20 dB. Provides superior signal quality with enhanced gain performance and minimal interference from neighboring radiators.
- 30 dB front-to-back ratio permits less physical separation on the tower thus adding mounting flexibility at installation sites where space is limited.
- Attractive weather-proof radome constructed of UV resistant material. Provides robust and trouble-free use in harsh outdoor environments.

MAXRAD

Technical Data

General Specifications: 2.4 GHz ISM enclosed yagi antenna series
Maximum Power: 5 watts
Polarization: Vertical or horizontal, linear (user adjustable)
Nominal Impedance: 50 ohms
VSWR: < 1.5:1
Termination: N, female is standard Consult factory for other connector options
Mounting Method: Heavy duty yagi mounting bracket (included) permits mast mounting on masts up to 2" O.D. MYK18 adjustable wall/pipe mount allows 180° (included angle) azimuth and elevation adjustment (sold separately.) Stacking harnesses available to stack two yagis (sold separately.)

For detailed specifications, visit <http://antenna.pctel.com>.



MYP24015PT



MYP24010PT



MYK18

Antenna Electrical Specifications

Model	Frequency Range	Nominal Gain	Horizontal Beamwidth @ 1/2 Power	Vertical Beamwidth @ 1/2 Power	Front-to-Back Ratio
MYP24010PT	2400-2485 MHz	10 dBi	55°	55°	23 dB
MYP24014PT	2400-2485 MHz	14 dBi	30°	30°	30 dB
MYP24015PT	2400-2485 MHz	15 dBi	30°	30°	30 dB
MYPB24015PT	2400-2686 MHz	15 dBi	30°	30°	30 dB

Mechanical Specifications

Model	Length	Weight (Mass)	Lateral Thrust at Rated Wind	Equivalent Flat Plate Area	Wind Survival	Cable
MYP24010PT	4.5" L x 3" OD (114 x 76 mm)	1 lb (0.5 kg)	5.8 lbs	0.060 ft ²	125 mph	3' (914.4 mm) coax
MYP24014PT	14" x 3" OD (356 x 76 mm)	1 lb (0.5 kg)	18.3 lbs	0.20 ft ²	125 mph	36" (914 mm) coax
MYP24015PT	14" x 3" OD (356 x 76 mm)	1 lb (0.5 kg)	18.3 lbs	0.20 ft ²	125 mph	18" (457 mm) coax
MYPB24015PT	14" x 3" OD (356 x 76 mm)	1 lb (0.5 kg)	18.3 lbs	0.20 ft ²	125 mph	12" (305 mm) Pro-Flex™ Plus 195

Accessories

Model	Description
MSK2450MN	Stacking harness for two 2.4 GHz MYP directional yagis. N male connector.
MSK2450MSMA	Stacking harness for two 2.4 GHz MYP directional yagis. Male SMA connector.

WISP Enclosed Yagi Antenna

The yagi antenna can be used as bridge antenna between two networks or for point-to-point communications. It is field adjustable for vertical or horizontal polarization with matched principal plane beamwidths for optimum performance in either orientation. This design also provides improved front-to-back ratio and sidelobe suppression that reduces interference. The antenna features a robust mounting structure for consistent performance regardless of weather conditions.

Features

- Field adjustable to allow vertical or horizontal polarity. Eliminates co-channel interference from neighboring radiators. Polarity markings molded on the antenna ensure installation in the correct orientation.
- Includes a robust mast mount bracket designed to withstand 125 mph wind.
- Matched principal plane beamwidths with excellent sidelobe suppression and cross-polarization rejection of more than 20 dB. Provides superior signal quality with enhanced gain performance and minimal interference from neighboring radiators.
- 30 dB front-to-back ratio permits less physical separation on the tower, adding mounting flexibility at installation sites where space is limited.
- Attractive weather-proof radome constructed of UV resistant material. Provides robust and trouble-free use in harsh outdoor environments.



MAXRAD

Antenna Electrical Specifications

Model	Frequency Range	Gain	Horizontal Plane Beamwidth	Vertical Plane Beamwidth	Front-to-Back Ratio
WISP24015PTNF	2.4-2.48 GHz	30 dB	30°	30°	15 dBi

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Lateral Thrust at Rated Wind	Equivalent Flat Plate Area
WISP24015PTNF	14" x 3" OD	1 lbs	18.3 lbs	0.20 ft ²

Technical Data

Polarization: Vertical or horizontal, linear (user adjustable)
Nominal Impedance: 50 ohms
VSWR: < 1.5:1
Wind Survival: 125 mph
Cable: 18" coax
Termination: N female
Mounting Method: Heavy duty yagi mounting bracket (included) permits mast mounting on masts up to 2" O.D.

For detailed specifications, visit <http://antenna.pctel.com>.



MYG9159, MYG9309



MYG9306, BMYA9306, BMYA8066



MYG9159FE, MYG8506FE



MYG9159ED, MYG9306ED



MYG9306



MYG4505ED



MYG4505

Gold Anodized Welded Yagi Antenna Series

The MYG antennas are constructed of gold anodized 6061-T6 seamless aluminum with complete 360° welds surrounding the 3/8" solid elements and connector mounting block assemblies. The connector is gold plated to provide the finest electrical connection. They include a solid aluminum mounting clamp and stainless steel mounting hardware.

Features

- 360° welds for all elements and connector mounting block
- Solid aluminum mounting clamp with stainless steel hardware
- Gold anodized finish for long lasting protection
- Gold plated connector
- MYG-ED series features enclosure of the driven element
- MYG-FE series features encapsulation of the entire antenna

MAXRAD

Technical Data

Maximum Power: 150 watts 300 watts (UHF series only)
Nominal Impedance: 50 ohms
Radiator Material: 3/8" solid 6061-T6 aluminum
Lightning Protection: DC grounded
Wind Survival: 100 mph (fully enclosed models) 125 mph (all other models)
Termination: N female 16" pigtail with N male connector (FE models)
Maximum Mount Pipe Diameter: 1-5/8" (All models unless noted) 3.5" (MYG856FE only) 2.5" (806-866 MHz and UHF models)

For detailed specifications, visit <http://antenna.pctel.com>.



MYK1 Mounting Bracket (included)



MYK10 mounting bracket (included)

Antenna Electrical Specifications

Model	Frequency Range	Factory Tuned Frequency	Gain	Bandwidth @ 1.5:1 VSWR	Horizontal Beamwidth @ 1/2 Power	Vertical Beamwidth @ 1/2 Power	Front-to-Back Ratio
MYG4063(N)	406-420 MHz	413 MHz	7.1 dB	15 MHz	72°	57°	17 dB
MYG4505(N)	450-470 MHz	460 MHz	9.2 dB	15 MHz	56°	48°	20 dB
MYG4505ED(N)	450-470 MHz	460 MHz	9.2 dB	15 MHz	56°	48°	20 dB
MYG8063	806-866 MHz	813.5 MHz	6 dB	60 MHz	72°	57°	15 dB
MYG8063ED	806-866 MHz	813.5 MHz	6 dB	60 MHz	72°	57°	15 dB
MYG8066	806-866 MHz	813.5 MHz	9 dB	60 MHz	42°	40°	16 dB
MYG8066ED	806-866 MHz	813.5 MHz	9 dB	60 MHz	42°	40°	16 dB
MYG8506	806-866 MHz	858 MHz	9 dB	60 MHz	42°	40°	16 dB
MYG8506ED	806-866 MHz	858 MHz	9 dB	60 MHz	42°	40°	16 dB
MYG8506FE	806-866 MHz	858 MHz	9 dB	60 MHz	42°	40°	16 dB
MYG9153EDNF	896-940 MHz	915 MHz	6 dB	26 MHz	72°	57°	20 dB
MYG9159	896-970 MHz	915 MHz	10 dB	75 MHz	52°	43°	20 dB
MYG9159ED	896-970 MHz	915 MHz	10 dB	75 MHz	52°	43°	20 dB
MYG9159FE	896-970 MHz	915 MHz	10 dB	75 MHz	50°	43°	20 dB
MYG9159FENF	896-970 MHz	915 MHz	10 dB	75 MHz	50°	43°	20 dB
MYG9303	896-970 MHz	930 MHz	6 dB	75 MHz	72°	57°	15 dB
MYG9303ED	896-970 MHz	930 MHz	6 dB	75 MHz	72°	57°	15 dB
MYG9306	896-970 MHz	930 MHz	9 dB	75 MHz	42°	40°	10 dB
MYG9306ED	896-970 MHz	930 MHz	9 dB	75 MHz	42°	40°	10 dB
MYG9306FE	896-970 MHz	930 MHz	9 dB	75 MHz	50°	45°	18 dB
MYG9309	896-970 MHz	930 MHz	10 dB	75 MHz	52°	43°	20 dB
MYG9309ED	896-970 MHz	930 MHz	10 dB	75 MHz	52°	43°	20 dB
MYG9309FE	896-970 MHz	930 MHz	10 dB	75 MHz	50°	43°	20 dB
MYG9153ED	902-928 MHz	915 MHz	6 dB	26 MHz	72°	57°	15 dB

Prefix “B” indicates black. Suffix NF indicates N female connector. Please add \$3.00 for “N” connector.

Yagi Base Station Antennas

Mechanical Specifications

Model	Weight (Mass)	Elements	Lateral Thrust @ Rated Wind	Equivalent Flat Plate Area	Bending Moment @ Rated Wind	Boom Length	Boom Diameter	Mounting Hardware (Included)
MYG4063(N)	1.5 lbs	3	6.1 lbs	.15 sq ft	5.9 ft-lbs	23"	7/8"	MYK10
MYG4505(N)	2.0 lbs	5	9.3 lbs	.23 sq ft	12.6 ft-lbs	32.5"	7/8"	MYK10
MYG4505ED(N)	2.0 lbs	5	9.3 lbs	.23 sq ft	12.6 ft-lbs	32.5"	7/8"	MYK10
MYG8063	1 lb	3	6.5 lbs	.10 sq ft	4.6 ft-lbs	17"	7/8"	MYK10
MYG8063ED	1 lb	3	13.3 lbs	.23 sq ft	9.7 ft-lbs	17"	7/8"	MYK10
MYG8066	2 lbs	6	10.7 lbs	.17 sq ft	12.5 ft-lbs	28"	7/8"	MYK10
MYG8066ED	2 lbs	6	17.0 lbs	.30 sq ft	2.0 ft-lbs	28"	7/8"	MYK10
MYG8506	2 lbs	6	10.7 lbs	.17 sq ft	12.5 ft-lbs	28"	7/8"	MYK10
MYG8506ED	2 lbs	6	17.0 lbs	.30 sq ft	2.0 ft-lbs	28"	7/8"	MYK10
MYG8506FE	13 lbs	6	102.60 lbs	1.80 sq ft	140.4 ft-lbs	31"	7/8"	Built-in
MYG9309FE	13.0 lbs	9	102.6 lbs	1.80 sq ft	140.4 ft-lbs	31"	7/8"	Built-in
MYG9153EDNF	2.1 lbs	3	13.0 lbs	.23 sq ft	9.6 ft-lbs	17"	7/8"	MYK10
MYG9159	1.5 lbs	9	10.3 lbs	.18 sq ft	12.7 ft-lbs	28"	7/8"	MYK10
MYG9159ED	2.1 lbs	9	16.3 lbs	.29 sq ft	14.7 ft-lbs	28"	7/8"	MYK10
MYG9159FE	13.0 lbs	9	102.6 lbs	1.80 sq ft	140.4 ft-lbs	31"	7/8"	Built-in
MYG9303	1.5 lbs	3	5.9 lbs	.09 sq ft	4.2 ft-lbs	17"	7/8"	MYK10
MYG9303ED	2.1 lbs	3	13.0 lbs	.23 sq ft	9.6 ft-lbs	17"	7/8"	MYK10
MYG9306	1.5 lbs	6	9.0 lbs	.16 sq ft	10.6 ft-lbs	28"	7/8"	MYK10
MYG9306ED	2.1 lbs	6	16.3 lbs	.29 sq ft	14.7 ft-lbs	28"	7/8"	MYK10
MYG9306FE	13.0 lbs	6	102.6 lbs	1.80 sq ft	140.4 ft-lbs	31"	7/8"	Built-in
MYG9159FENF	13.0 lbs	9	102.6 lbs	1.80 sq ft	140.4 ft-lbs	31"	7/8"	Built-in
MYG9309	1.5 lbs	9	10.3 lbs	.18 sq ft	12.7 ft-lbs	28"	7/8"	MYK10
MYG9309ED	2.1 lbs	9	16.3 lbs	.29 sq ft	14.7 ft-lbs	28"	7/8"	MYK10
MYG9153EDNF	2.1 lbs	3	13 lbs	.23 sq ft	9.6 ft-lbs	17"	7/8"	MYK10

Mounting

Yagi Series	Mounting Method	Maximum Mount Pipe Diameter
UHF	MYK1 standard mast mount included with all models, except 12 element yagis MYK2 standard mast mount included with 12 element models	Up to 2" with factory supplied mounts
VHF	MYK1 mast mounting bracket included with 3 element yagis MYK2 mast mounting bracket included with 5 and 6 element yagis	1-5/8" for 3 element yagis with factory supplied mount 2" for 5 and 6 element yagis with factory supplied mount Other mount options available
Lowband	MYK9 mast mounting bracket (included)	2.5" with factory supplied mount Other mount options available
900 MHz	MKY10 or MYK1 mast mounting bracket (included) See Mechanical Specifications	1-5/8"
800 MHz	MKY10 or MYK1 mast mount (included) See Mechanical Specifications	3.5" (MYG8506FE only) 2.5" (All other 800 MHz models)

Prefix "B" indicates black. Suffix NF indicates N female connector. Please add \$3.00 for "N" connector.

Aluminum Yagi Antennas

The MYA UHF yagis are unsurpassed in their price to performance ratio. All models feature rugged 6061-T6 seamless aluminum construction, stainless steel hardware, and through boom mounting of all elements for years of reliable service. Elements are DC grounded to the boom. Select models are available in black finish. These antennas are UPS shippable.

Features

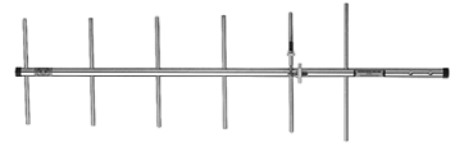
- Stainless steel hardware
- Available field tunable (add suffix "K") or factory tuned
- Field tunable (FT) version has telescoping elements with stainless steel lock clamps for easy adjustment
- Stacking harness available for phasing two or more antennas Black finish available on select models
- 3 element yagi boom available with 7/8" double wall (add suffix "HD")
- 6 element yagi boom is a 2 piece assembly
- Heavy-duty, double-walled aluminum boom
- Black finish available on select models

MAXRAD

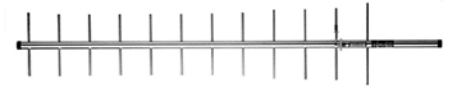
Technical Data

Maximum Power:
300 watts (UHF series)
250 watts (VHF series)
500 watts (MYA1403 only)
1000 watts (lowband series)
Nominal Impedance: 50 ohms
Radiator Material: 3/8" solid 6061-T6 aluminum
Lightning Protection: DC grounded
Wind Survival: 100 mph
Termination: SO239 standard, N female is optional

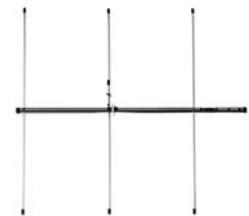
For detailed specifications, visit <http://antenna.pctel.com>.



MYA1506



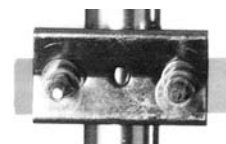
MYA43012



MYA1503



MYA723



MYK1



MYK2



MYK9



MYA9153, MYA8063



MYA93012



MYA93012, MYA82512

Yagi Base Station Antennas

Antenna Electrical Specifications

Model	Frequency Range	Factory Tuned Frequency	Gain	Bandwidth @ 1.5:1 VSWR	Horizontal Beamwidth @ 1/2 Power	Vertical Beamwidth @ 1/2 Power	Front-to-Back Ratio
MYA723(N)	66-88 MHz		7.1 dB	.7/1.7 MHz	72°	57°	15 dB
MYA723(N)*	66-88 MHz		7.1 dB	.7/1.7 MHz	72°	57°	15 dB
MYA725(N)	66-88 MHz		9.2 dB	1.3/2.1 MHz	56°	48°	15 dB
MYA725(N)*	66-88 MHz		9.2 dB	1.3/2.1 MHz	56°	48°	15 dB
MYA1403(N)*	132-150 MHz		7.1 dB	0.7 MHz	72°	57°	17 dB
MYA1403K(N)	132-150 MHz		7.1 dB	0.7 MHz	72°	57°	17 dB
MYA1403KHD(N)	132-150 MHz		7.1 dB	0.7 MHz	72°	57°	17 dB
MYA1405(N)*	132-150 MHz		9.2 dB	1.3 MHz	56°	48°	20 dB
MYA1405K(N)	132-150 MHz		9.2 dB	1.3 MHz	56°	48°	20 dB
MYA1406(N)*	132-150 MHz		10.2 dB	1.5 MHz	42°	40°	20 dB
MYA1406K(N)	132-150 MHz		10.2 dB	1.5 MHz	42°	40°	20 dB
MYA1503(N)*	150-174 MHz	Specify frequency when ordering or add suffix "K" for field or factory tuned option.	7.1 dB	0.7 MHz	72°	57°	17 dB
MYA1503FT(N)	150-174 MHz		7.1 dB	0.7 MHz	72°	57°	17 dB
MYA1503HD(N)*	150-174 MHz		7.1 dB	0.7 MHz	72°	57°	17 dB
MYA1503K(N)	150-174 MHz		7.1 dB	0.7 MHz	72°	57°	17 dB
MYA1503KHD(N)	150-174 MHz		7.1 dB	0.7 MHz	72°	57°	17 dB
MYA1505(N)*	150-174 MHz	Add suffix "FT" for telescopic elements option	9.2 dB	1.3 MHz	56°	48°	20 dB
MYA1505K(N)	150-174 MHz		9.2 dB	1.3 MHz	56°	48°	20 dB
MYA1506(N)*	150-174 MHz		10.2 dB	1.5 MHz	42°	40°	20 dB
MYA1506K(N)	150-174 MHz		10.2 dB	1.5 MHz	42°	40°	20 dB
MYA2203(N)*	220-250 MHz		7.1 dB	3.0 MHz	72°	57°	17 dB
MYA2203K(N)	220-250 MHz		7.1 dB	3.0 MHz	72°	57°	17 dB
MYA2203KHD(N)	220-250 MHz		7.1 dB	3.0 MHz	72°	57°	17 dB
MYA2205(N)*	220-250 MHz		9.2 dB	2.0 MHz	56°	48°	20 dB
MYA2205K(N)	220-250 MHz		9.2 dB	2.0 MHz	56°	48°	20 dB
MYA2203FT(N)	220-260 MHz		7.1 dB	3.0 MHz	72°	57°	17 dB
MYA2505(N)*	250-285 MHz		9.2 dB	2.0 MHz	56°	48°	20 dB
MYA2505K(N)	250-285 MHz		9.2 dB	2.0 MHz	56°	48°	20 dB
MYA3006*	300-320 MHz		9.2 dB	20 MHz	42°	40°	17 dB

* Must specify frequency when ordering; add \$3.00 for "N" connector. Suffix "N" indicates "N" connector. Prefix "B" indicates black. Add suffix "K" for field or factory tuned option. Add suffix "FT" for telescopic elements option.

Antenna Electrical Specifications

Model	Frequency Range	Factory Tuned Frequency	Gain	Bandwidth @ 1.5:1 VSWR	Horizontal Beamwidth @ 1/2 Power	Vertical Beamwidth @ 1/2 Power	Front-to-Back Ratio
MYA3003(N)*	300-350 MHz	Specify Frequency	7.1 dB	4 MHz	72°	57°	17 dB
MYA3003K(N)	300-350 MHz	Field Tunable	7.1 dB	4 MHz	72°	57°	17 dB
MYA3503(N)*	350-406 MHz	Specify Frequency	7.1 dB	4 MHz	72°	57°	17 dB
MYA3503K(N)	350-406 MHz	Field Tunable	7.1 dB	4 MHz	72°	57°	17 dB
MYA3505(N)*	350-406 MHz	Specify Frequency	9.2 dB	4 MHz	56°	48°	20 dB
MYA3505K(N)	350-406 MHz	Field Tunable	9.2 dB	4 MHz	56°	48°	20 dB
MYA3506(N)*	350-406 MHz	Specify Frequency	10.2 dB	4 MHz	42°	40°	20 dB
MYA3506K(N)	350-406 MHz	Field Tunable	10.2 dB	4 MHz	42°	40°	20 dB
MYA3955(N)	388-402 MHz	395 MHz	9.2 dB	15 MHz	56°	48°	20 dB
MYA4063(N)	406-420 MHz	413 MHz	7.1 dB	15 MHz	72°	57°	17 dB
MYA4065(N)	406-420 MHz	413 MHz	9.2 dB	15 MHz	56°	48°	20 dB
MYA4066(N)	406-420 MHz	413 MHz	10.2 dB	15 MHz	42°	40°	20 dB
MYA4205(N)	420-440 MHz	430 MHz	9.2 dB	15 MHz	56°	48°	20 dB
MYA43012(N)	430-450 MHz	440 MHz	12.2 dB	15 MHz	36°	34°	25 dB
MYA4303(N)	430-450 MHz	440 MHz	7.1 dB	15 MHz	72°	57°	17 dB
MYA4305(N)	430-450 MHz	440 MHz	9.2 dB	15 MHz	56°	48°	20 dB
MYA4306(N)	430-450 MHz	440 MHz	10.2 dB	15 MHz	42°	40°	20 dB
(B)MYA45012(N)	450-470 MHz	460 MHz	12.2 dB	15 MHz	36°	34°	25 dB
(B)MYA4503(N)	450-470 MHz	460 MHz	7.1 dB	15 MHz	72°	57°	17 dB
(B)MYA4505(N)	450-470 MHz	460 MHz	9.2 dB	15 MHz	56°	48°	20 dB
(B)MYA4506(N)	450-470 MHz	460 MHz	10.2 dB	15 MHz	42°	40°	20 dB
(B)MYA4705(N)	470-490 MHz	480 MHz	9.2 dB	15 MHz	56°	48°	20 dB
MYA47012(N)	470-490 MHz	480 MHz	12.2 dB	15 MHz	36°	34°	25 dB
MYA4703(N)	470-490 MHz	480 MHz	7.1 dB	15 MHz	72°	57°	17 dB
MYA4706(N)	470-490 MHz	480 MHz	10.2 dB	15 MHz	42°	40°	20 dB
MYA49012(N)	490-512 MHz	501 MHz	12.2 dB	15 MHz	36°	34°	25 dB
MYA4903(N)	490-512 MHz	501 MHz	7.1 dB	15 MHz	72°	57°	17 dB
MYA4905(N)	490-512 MHz	501 MHz	9.2 dB	15 MHz	56°	48°	20 dB
MYA4906(N)	490-512 MHz	501 MHz	10.2 dB	15 MHz	42°	40°	20 dB

* Must specify frequency when ordering; add \$3.00 for “N” connector. Suffix “N” indicates “N” connector. Prefix “B” indicates black. Add suffix “K” for field or factory tuned option. Add suffix “FT” for telescopic elements option.

Yagi Base Station Antennas

Antenna Electrical Specifications

Model	Frequency Range	Factory Tuned Frequency	Gain	Bandwidth @ 1.5:1 VSWR	Horizontal Beamwidth @ 1/2 Power	Vertical Beamwidth @ 1/2 Power	Front-to-Back Ratio
MYA7106	710-746 MHz	728 MHz	9 dB	36 MHz	55°	45°	15 dB
(B)MYA80612	806-866 MHz	813 MHz	11 dB	60 MHz	36°	34°	20 dB
(B)MYA8063	806-866 MHz	813 MHz	6 dB	60 MHz	72°	57°	15 dB
(B)MYA8066	806-866 MHz	813 MHz	9 dB	60 MHz	42°	40°	16 dB
MYA8066(PTU)	806-866 MHz	813 MHz	9 dB	60 MHz	42°	40°	16 dB
MYA85012	806-866 MHz	858 MHz	11 dB	60 MHz	36°	34°	20 dB
MYA8503	806-866 MHz	858 MHz	6 dB	60 MHz	72°	57°	15 dB
MYA8506	806-866 MHz	858 MHz	9 dB	60 MHz	42°	40°	16 dB
(B)MYA82512	824-896 MHz	835 MHz	11 dB	73 MHz	36°	34°	20 dB
(B)MYA8253	824-896 MHz	835 MHz	6 dB	73 MHz	72°	57°	15 dB
(B)MYA8256	824-896 MHz	835 MHz	9 dB	73 MHz	42°	40°	16 dB
MYA87012	824-896 MHz	880 MHz	11 dB	73 MHz	36°	34°	20 dB
MYA8703	824-896 MHz	880 MHz	6 dB	73 MHz	72°	57°	15 dB
MYA8706	824-896 MHz	880 MHz	9 dB	73 MHz	42°	40°	16 dB
MYA91512	896-940 MHz	915 MHz	11 dB	45 MHz	40°	42°	20 dB
MYA91512RPC	896-940 MHz	915 MHz	11 dB	45 MHz	40°	42°	20 dB
MYA9156	896-940 MHz	915 MHz	9 dB	45 MHz	48°	56°	20 dB
MYA9156RPC	896-940 MHz	915 MHz	9 dB	45 MHz	48°	56°	20 dB
MYA9306ED	896-940 MHz	930 MHz	9 dB	45 MHz	48°	56°	20 dB
(B)MYA93012	896-970 MHz	930 MHz	11 dB	75 MHz	40°	42°	20 dB
(B)MYA9303	896-970 MHz	930 MHz	6 dB	50 MHz	72°	57°	15 dB
(B)MYA9306	896-970 MHz	930 MHz	9 dB	75 MHz	48°	56°	20 dB
MYA9153	896-970 MHz	915 MHz	6 dB	75 MHz	72°	57°	15 dB
MYA9309	896-970 MHz	930 MHz	10 dB	75 MHz	52°	43°	20 dB
MYA9153RPC	902-928 MHz	915 MHz	6 dB	26 MHz	72°	57°	15 dB

* Must specify frequency when ordering; add \$3.00 for “N” connector. Suffix “N” indicates “N” connector. Prefix “B” indicates black. Add suffix “K” for field or factory tuned option. Add suffix “FT” for telescopic elements option.

Mechanical Specifications

Model	Weight (Mass)	Elements	Bending Moment at Rated Wind	Lateral Thrust @ Rated Wind	Equivalent Flat Plate Area	Boom Length	Boom Diameter
MYA723(N)	7 lbs	3	155 ft-lbs	48.9 lbs	1.26 sq ft	92"	1-1/2" (double walled)
MYA723(N)*	7 lbs	3	155 ft-lbs	48.9 lbs	1.26 sq ft	92"	1-1/2" (double walled)
MYA725(N)	10 lbs	5	640 ft-lbs	90.3 lbs	2.37 sq ft	170"	1-1/2" (double walled)
MYA725(N)*	10 lbs	5	640 ft-lbs	90.3 lbs	2.37 sq ft	170"	1-1/2" (double walled)
MYA1403(N)*	3 lbs	3	25.3 ft-lbs	14.5 lbs	.36 sq ft	42"	7/8"
MYA1403K(N)	3 lbs	3	25.3 ft-lbs	14.5 lbs	.36 sq ft	42"	7/8"
MYA1403KHD(N)	3 lbs	3	25.3 ft-lbs	14.5 lbs	.36 sq ft	42"	7/8"
MYA1405(N)*	4 lbs	5	82.7 ft-lbs	27.6 lbs	.71 sq ft	72"	1-1/4"
MYA1405K(N)	4 lbs	5	82.7 ft-lbs	27.6 lbs	.71 sq ft	72"	1-1/4"
MYA1406(N)*	5 lbs	6	160.6 ft-lbs	37.1 lbs	.96 sq ft	104"	1-1/4"
MYA1406K(N)	5 lbs	6	160.6 ft-lbs	37.1 lbs	.96 sq ft	104"	1-1/4"
MYA1503(N)*	3 lbs	3	25.3 ft-lbs	14.5 lbs	.36 sq ft	42"	7/8"
MYA1503FT(N)	3 lbs	3	25.3 ft-lbs	14.5 lbs	.36 sq ft	42"	7/8"
MYA1503HD(N)*	3 lbs	3	25.3 ft-lbs	14.5 lbs	.36 sq ft	42"	7/8"
MYA1503K(N)	3 lbs	3	25.3 ft-lbs	14.5 lbs	.36 sq ft	42"	7/8"
MYA1503KHD(N)	3 lbs	3	25.3 ft-lbs	14.5 lbs	.36 sq ft	42"	7/8"
MYA1505(N)*	4 lbs	5	82.7 ft-lbs	27.6 lbs	.71 sq ft	72"	1-1/4"
MYA1505K(N)	4 lbs	5	82.7 ft-lbs	27.6 lbs	.71 sq ft	72"	1-1/4"
MYA1506(N)*	5 lbs	6	160.6 ft-lbs	37.1 lbs	.96 sq ft	104"	1-1/4"
MYA1506K(N)	5 lbs	6	160.6 ft-lbs	37.1 lbs	.96 sq ft	104"	1-1/4"
MYA2203(N)*	3 lbs	3	16 ft-lbs	9.1 lbs	.21 sq ft	42"	7/8"
MYA2203K(N)	3 lbs	3	16 ft-lbs	9.1 lbs	.21 sq ft	42"	7/8"
MYA2203KHD(N)	3 lbs	3	16 ft-lbs	9.1 lbs	.21 sq ft	42"	7/8"
MYA2205(N)*	4 lbs	5	55.7 ft-lbs	18.6 lbs	.46 sq ft	72"	1-1/4"
MYA2205K(N)	4 lbs	5	55.7 ft-lbs	18.6 lbs	.46 sq ft	72"	1-1/4"
MYA2203FT(N)	3 lbs	3	16 ft-lbs	9.1 lbs	.21 sq ft	42"	7/8"
MYA2505(N)*	4 lbs	5	55.7 ft-lbs	18.6 lbs	.46 sq ft	72"	1-1/4"
MYA2505K(N)	4 lbs	5	55.7 ft-lbs	18.6 lbs	.46 sq ft	72"	1-1/4"
MYA3006*	2.5 lbs	6	22.3 ft-lbs	12.8 lbs	.32 ft ²	42"	7/8"
MYA3003(N)*	1.5 lbs	3	6.6 ft-lbs	6.9 lbs	.17 ft ²	23"	7/8"
MYA3003K(N)	1.5 lbs	3	6.6 ft-lbs	6.9 lbs	.17 ft ²	23"	7/8"
MYA3503(N)*	1.5 lbs	3	6.6 ft-lbs	6.9 lbs	.17 ft ²	23"	7/8"

* Must specify frequency when ordering.

Suffix "N" indicates "N" connector. Please add \$3.00 for "N" connector.

Yagi Base Station Antennas

Mechanical Specifications

Model	Weight (Mass)	Elements	Bending Moment at Rated Wind	Lateral Thrust @ Rated Wind	Equivalent Flat Plate Area	Boom Length	Boom Diameter
MYA3503K(N)	1.5 lbs	3	6.6 ft-lbs	6.9 lbs	.17 ft ²	23"	7/8"
MYA3505(N)*	2.0 lbs	5	15.2 ft-lbs	10.3 lbs	.26 ft ²	35.5"	7/8"
MYA3505K(N)	2.0 lbs	5	15.2 ft-lbs	10.3 lbs	.26 ft ²	35.5"	7/8"
MYA3506(N)	2.5 lbs	6	22.3 ft-lbs	12.8 lbs	.32 ft ²	42"	7/8"
MYA3506K(N)	2.5 lbs	6	22.3 ft-lbs	12.8 lbs	.32 ft ²	42"	7/8"
MYA3955(N)	2.0 lbs	5	15.2 ft-lbs	10.3 lbs	.26 ft ²	35.5"	7/8"
MYA4063(N)	1.5 lbs	3	5.9 ft-lbs	6.1 lbs	.15 ft ²	23"	7/8"
MYA4065(N)	2.0 lbs	5	12.6 ft-lbs	9.3 lbs	.23 ft ²	35.5"	7/8"
MYA4066(N)	2.5 lbs	6	21.4 ft-lbs	12.2 lbs	.29 ft ²	42"	7/8"
MYA4205(N)	2.0 lbs	5	12.6 ft-lbs	9.3 lbs	.23 ft ²	35.5"	7/8"
MYA43012(N)	5.0 lbs	12	74.6 ft-lbs	24.9 lbs	.62 ft ²	72"	1-1/4"
MYA4303(N)	1.5 lbs	3	5.9 ft-lbs	6.1 lbs	.15 ft ²	23"	7/8"
MYA4305(N)	2.0 lbs	5	12.6 ft-lbs	9.3 lbs	.23 ft ²	35.5"	7/8"
MYA4306(N)	2.5 lbs	6	21.4 ft-lbs	12.2 lbs	.29 ft ²	42"	7/8"
(B)MYA45012(N)	5.0 lbs	12	74.6 ft-lbs	24.9 lbs	.62 ft ²	72"	1-1/4"
(B)MYA4503(N)	1.5 lbs	3	5.9 ft-lbs	6.1 lbs	.15 ft ²	23"	7/8"
(B)MYA4505(N)	2.0 lbs	5	12.6 ft-lbs	9.3 lbs	.23 ft ²	35.5"	7/8"
(B)MYA4506(N)	2.5 lbs	6	21.4 ft-lbs	12.2 lbs	.29 ft ²	42"	7/8"
(B)MYA4705(N)	2.0 lbs	5	12.6 ft-lbs	9.3 lbs	.23 ft ²	35.5"	7/8"
MYA47012(N)	5.0 lbs	12	74.6 ft-lbs	24.9 lbs	.62 ft ²	72"	1-1/4"
MYA4703(N)	1.5 lbs	3	5.9 ft-lbs	6.1 lbs	.15 ft ²	23"	7/8"
MYA4706(N)	2.5 lbs	6	21.4 ft-lbs	12.2 lbs	.29 ft ²	42"	7/8"
MYA49012(N)	5.0 lbs	12	74.6 ft-lbs	24.9 lbs	.62 ft ²	72"	1-1/4"
MYA4903(N)	1.5 lbs	3	5.9 ft-lbs	6.1 lbs	.15 ft ²	23"	7/8"
MYA4905(N)	2.0 lbs	5	12.6 ft-lbs	9.3 lbs	.23 ft ²	35.5"	7/8"
MYA4906(N)	2.5 lbs	6	21.4 ft-lbs	12.2 lbs	.29 ft ²	42"	7/8"

* Must specify frequency when ordering.

Suffix "N" indicates "N" connector. Please add \$3.00 for "N" connector.

Mechanical Specifications

Model	Weight (Mass)	Elements	Bending Moment @ Rated Wind	Lateral Thrust @ Rated Wind	Equivalent Flat Plate Area	Boom Length	Boom Diameter
MYA7106	2 lbs	6	12.5 ft-lbs	10.7 lbs	.17 sq ft	28"	7/8"
(B)MYA80612	2.5 lbs	12	17.8 ft-lbs	20.8 lbf	.27 ft ²	48"	7/8"
(B)MYA8063	1.5 lbs	3	4.6 ft-lbs	6.5 lbs	.10 sq ft	17"	7/8"
(B)MYA8066	2 lbs	6	12.5 ft-lbs	10.7 lbs	.17 sq ft	28"	7/8"
MYA8066(PTU)	2 lbs	6	12.5 ft-lbs	10.7 lbs	.17 sq ft	28"	7/8"
MYA85012	2.5 lbs	12	17.8 ft-lbs	20.8 lbf	.27 ft ²	48"	7/8"
MYA8503	1.5 lbs	3	4.6 ft-lbs	6.5 lbs	.10 sq ft	17"	7/8"
MYA8506	2 lbs	6	12.5 ft-lbs	10.7 lbs	.17 sq ft	28"	7/8"
(B)MYA82512	2.5 lbs	12	17.8 ft-lbs	.29 sq ft	.29 sq ft	48"	7/8"
(B)MYA8253	1.5 lbs	3	4.6 ft-lbs	6.5 lbs	.10 sq ft	17"	7/8"
(B)MYA8256	2 lbs	6	12.5 ft-lbs	10.7 lbs	.17 sq ft	28"	7/8"
MYA87012	2.5 lbs	12	17.8 ft-lbs	.29 sq ft	.29 sq ft	48"	7/8"
MYA8703	1.5 lbs	3	4.6 ft-lbs	6.5 lbs	.10 sq ft	17"	7/8"
MYA8706	2 lbs	6	12.5 ft-lbs	10.7 lbs	.17 sq ft	28"	7/8"
MYA91512	2.5 lbs	12	23.3 ft-lbs	16.6 lbs	.27 sq ft	48"	7/8"
MYA91512RPC	2.5 lbs	12	23.3 ft-lbs	16.6 lbs	.27 sq ft	48"	7/8"
MYA9156	1.5 lbs	6	10.6 ft-lbs	9.1 lbs	.16 sq ft	23"	7/8"
MYA9156RPC	1.5 lbs	6	10.6 ft-lbs	9.1 lbs	.16 sq ft	23"	7/8"
MYA9306ED	2.1 lbs	6	14.7 ft-lbs	16.3 lbs	.29 sq ft	28"	7/8"
(B)MYA93012	2.5 lbs	12	23.3 ft-lbs	16.6 lbs	.27 sq ft	48"	7/8"
(B)MYA9303	1.5 lbs	3	4.2 ft-lbs	5.9 lbs	.09 sq ft	17"	7/8"
(B)MYA9306	1.5 lbs	6	10.6 ft-lbs	9.1 lbs	.16 sq ft	23"	7/8"
MYA9153	1.5 lbs	3	4.2 ft-lbs	5.9 lbs	.09 sq ft	17"	7/8"
MYA9309	1.5 lbs	9	12.7 ft-lbs	10.3 lbs	.18 sq ft	23"	7/8"
MYA9153RPC	1.5 lbs	3	4.2 ft-lbs	5.9 lbs	.09 sq ft	17"	7/8"

Mounting

Yagi Series	Mounting Method	Maximum Mount Pipe Diameter
UHF	MYK1 standard mast mount included with all models, except 12 element yagis MYK2 standard mast mount included with 12 element models	Up to 2" with factory supplied mounts
VHF	MYK1 mast mounting bracket included with 3 element yagis MYK2 mast mounting bracket included with 5 and 6 element yagis	1-5/8" for 3 element yagis with factory supplied mount 2" for 5 and 6 element yagis with factory supplied mount Other mount options available
Lowband	MYK9 mast mounting bracket included	2.5" with factory supplied mount Other mount options available

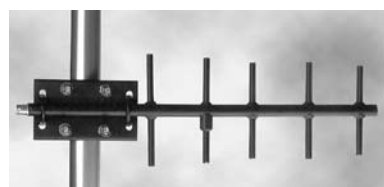
* Must specify frequency when ordering.

Suffix "N" indicates "N" connector. Please add \$3.00 for "N" connector.

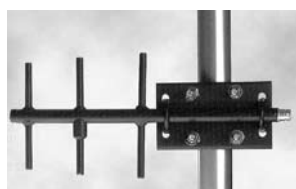
Yagi Base Station Antennas



The BMOY UHF models are available in 3 element and 5 element versions. Each version includes models covering 406-440 MHz, 430-460 MHz, and 440-480 MHz. The line also includes a 5 element model covering 470-512 MHz.



BMOY8905



BMOY8903



End fed connector facilitates installation



360° welded elements and black powder coating provide maximum durability

Black Optimized Yagi Antennas

The BMOY yagis have been optimized using a genetic algorithm to achieve superior performance over the entire 800/900 MHz and UHF frequency bands. These antennas feature solid 3/8" elements attached to a seamless aluminum boom with 360° welds, and are finished with a black polyester powder coating. Each antenna has a type N termination located at the end of the boom, with a fully sealed driven element for complete protection against humidity, acid rain, or salt spray. A solid aluminum mounting bracket allows for either vertical or horizontal polarization. The BMOY's sturdy construction and advanced engineering design provides outstanding durability and superior performance in all weather conditions.

Features

- Broadband performance covering all 800/900 MHz frequencies with only three models, and no tuning required. Provides optimal performance, minimizes inventory requirements, and reduces installation time.
- Single wideband model (BMOYW8063) available in a 3-element configuration, covering 806-896 MHz frequencies with no tuning required.
- 360° welds at element and boom interface provide complete protection of the antenna's internal mechanism against moisture.
- Solid aluminum mounting clamps with stainless steel hardware. Ensures a robust installation and allows the antenna to be mounted for horizontal or vertical polarization.
- End-fed type N connector. Makes connector accessible for easier installations and protects the electrical connection from moisture and other extreme weather influences.
- Fully enclosed low loss feed system. No exposed gamma match to corrode or deteriorate.
- Black polyester powder-coated finish. Provides an added layer of protection, maximizing performance and durability under the toughest weather conditions.
- No tuning required. Allows faster, more reliable installations (UHF models).

MAXRAD

Technical Data

Maximum Power: 150 watts
Nominal Impedance: 50 ohms
Radiator Material: 3/8" solid 6061-T6 aluminum
Lightning Protection: DC grounded
Wind Survival: 200 mph with no ice. It will survive up to 110 mph with 0.5" radial ice build-up.
Termination: N female
Maximum Mounting Pipe Diameter: 1.9" OD (with MYK17 factory supplied mount) 2.68" OD (with MYK14 optional heavy duty mount)
Mounting Method: MYK17 mast mount bracket (included) MYK14 heavy duty mast mount is also available

For detailed specifications, visit <http://antenna.pctel.com>.

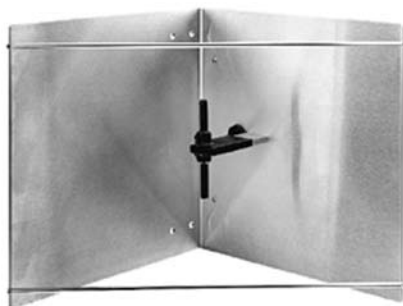
Antenna Electrical Specifications

Model	Frequency Range	Gain	Bandwidth @ 1.5:1 VSWR	Horizontal Beamwidth @ 1/2 Power	Vertical Beamwidth @ 1/2 Power	Front-to-Back Ratio
BMOY4065	406-440 MHz	9.0 dBd	34 MHz	52°	45°	> 15 dB
BMOY4063	406-440 MHz	6.5 dBd	34 MHz	71°	62°	> 15 dB
BMOY4303	430-460 MHz	6.5 dBd	30 MHz	71°	62°	> 15 dB
BMOY4305	430-460 MHz	9.0 dBd	30 MHz	52°	45°	> 15 dB
BMOY4405	440-480 MHz	9.0 dBd	40 MHz	52°	45°	> 15 dB
BMOY4403	440-480 MHz	6.5 dBd	40 MHz	71°	62°	> 15 dB
BMOY4705	470-512 MHz	9.0 dBd	42 MHz	52°	45°	> 15 dB
BMOY8065	806-869 MHz	9.0 dBd	60 MHz	52°	45°	15 dB
BMOY8245	824-896 MHz	9.0 dBd	72 MHz	52°	45°	15 dB
BMOY8905	890-960 MHz	9.0 dBd	70 MHz	52°	45°	15 dB
BMOY8063	806-869 MHz	6.4 dBd	63 MHz	100°	54°	20 dB
BMOY8243	824-896 MHz	6.4 dBd	72 MHz	100°	54°	20 dB
BMOY8903	890-960 MHz	6.4 dBd	70 MHz	100°	54°	20 dB
BMOYW8063	806-896 MHz	6.3 dBd	90 MHz	100°	54°	20 dB

Mechanical Specifications

Model	Weight (Mass)	Elements	Bending Moment @ 125 mph Wind	Lateral Thrust @ 125 mph Wind	Equivalent Flat Plate Area	Boom Length	Boom Diameter
BMOY4065	2 lbs	5	32.4 ft-lbs	24.2 lbs	.31 ft ²	34"	.75"
BMOY4063	1.2 lbs	3	12.7 ft-lbs	14.8 lbs	.19 ft ²	22"	.75"
BMOY4303	1.2 lbs	3	12.7 ft-lbs	14.8 lbs	.19 ft ²	22"	.75"
BMOY4305	2 lbs	5	32.4 ft-lbs	24.2 lbs	.31 ft ²	34"	.75"
BMOY4405	2 lbs	5	32.4 ft-lbs	24.2 lbs	.31 ft ²	34"	.75"
BMOY4403	1.2 lbs	3	12.7 ft-lbs	14.8 lbs	.19 ft ²	22"	.75"
BMOY4705	2 lbs	5	32.4 ft-lbs	24.2 lbs	.31 ft ²	34"	.75"
BMOY8065	0.9 lbs	5	9.5 ft-lbs	12.6 lbs	.16 ft ²	20.5"	.75"
BMOY8245	0.9 lbs	5	9.5 ft-lbs	12.6 lbs	.16 ft ²	20.5"	.75"
BMOY8905	0.9 lbs	5	9.5 ft-lbs	12.6 lbs	.16 ft ²	20.5"	.75"
BMOY8063	0.7 lbs	3	3.9 ft-lbs	7.9 lbs	.10 ft ²	14"	.75"
BMOY8243	0.7 lbs	3	3.9 ft-lbs	7.9 lbs	.10 ft ²	14"	.75"
BMOY8903	0.7 lbs	3	3.9 ft-lbs	7.9 lbs	.10 ft ²	14"	.75"
BMOYW8063	0.7 lbs	3	3.9 ft-lbs	7.9 lbs	.10 ft ²	14"	.75"

MCR Broadband Corner Reflector Antennas Series



MCR806

With a higher front-to-back ratio (unwanted signal rejection) the MCR806 delivers superior performance in areas of concentrated RF signals.

Features

- 8.5 dB forward gain to aim signal in desired direction.
- Covers the entire band without tuning.
- RG-213/U cable with male connector.
- Rugged construction.

MAXRAD

Technical Data

Maximum Power: 100 watts
Nominal Impedance: 50 ohms
Construction Material: 6061-T6 aluminum panels
Lightning Protection: DC grounded
Wind Survival: 100 mph
Termination: 24" jumper with N male connector
Mounting Hardware: 1-1/4" U bolts (supplied)
Maximum Mount Pipe Diameter: 1-1/4"

Antenna Electrical Specifications

Model	Frequency Range	Factory Tuned Frequency	Gain	Bandwidth @ 11.5:1 VSWR	Horizontal Beamwidth @ 1/2 Power	Vertical Beamwidth @ 1/2 Power	Front-to-Back Ratio
MCR806	806-896 MHz	835 MHz	8.5 dB	90 MHz	45°	56°	23 dB
MCR900	896-970 MHz	930 MHz	8.5 dB	90 MHz	45°	56°	23 dB

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Equivalent Flat Plate Area	Lateral Thrust @ Rated Wind	Bending Moment at Rated Wind
MCR806	14" H x 14" W (355.6 x 355.6 mm)	3.8 lbs (1.7 kg)	1.92 ft ²	71 lbs	41.4 ft-lbs
MCR900	14" H x 14" W (355.6 x 355.6 mm)	3.8 lbs (1.7 kg)	1.92 ft ²	71 lbs	41.4 ft-lbs

For detailed specifications, visit <http://antenna.pctel.com>.



NON CELLULAR OMNIDIRECTIONAL BASE STATION ANTENNAS

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Mast Mount Omnidirectional (MMO) Antennas

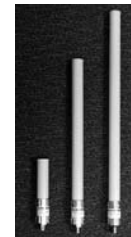
The MMO series base antenna provides outstanding coverage in a rugged U.V. stable, plastic radome with an aluminum base that is ideal for indoor or outdoor applications.

Features

- The MMO24005PTRPC provides a broad elevation pattern antenna radiation pattern that has been shaped to direct energy where it is needed, while suppressing the misdirected upper and lower sidelobe energy.
- Pipe mount is included for added convenience.
- Multiple band coverage supports 2.4 GHz and 5.15-5.8 GHz broadband networks, eliminating the need for a second or third antenna in POP locations where mounting space is limited or costly. (MMO24580608 model).
- Optimized elevation pattern. Minimizes misdirected energy by suppressing sidelobe energy and directing the radiated energy towards the desired area of coverage.



Multiple band MMO24580608 omnidirectional antenna



MMO 5.8 GHz series antennas

Antenna Electrical Specifications

Model	Frequency Range	Nominal Gain	H-plane Beamwidth	E-plane Beamwidth
MMO24005PT	2.4-2.485 GHz	5.5 dBi +/-0.5	360°	32°
MMO24005PT36	2.4-2.485 GHz	5.5 dBi +/-0.5	360°	32°
MMO24580608	2.4-2.48/ 5.15-5.85 GHz	6 dBi/ 8 dBi	360°	22°/ 15°
MMO58004NF	5.15-5.85 GHz	4 dBi	360°	30°
MMO58007NF	5.15-5.85 GHz	7 dBi	360°	12°
MMO58010NF	5.15-5.85 GHz	10 dBi	360°	10°

Mechanical Specifications

Model	Antenna Height	Weight (Mass)	Bending Moment at Rated Wind	Lateral Thrust at Rated Wind	Equivalent Flat Plane Area
MMO24005PT	11.3" (287 mm)	0.5 lbs (0.23 kg)	2.2 ft-lbs	4.6 lbs	0.5 ft ²
MMO24005PT36	11.3" (287 mm)	0.5 lbs (0.23 kg)	2.2 ft-lbs	4.6 lbs	0.5 ft ²
MMO24580608	26" (660.4 mm)	0.50 lbs (0.226 kg)	11.5 ft-lbs	10.6 lbs	0.12 ft ²
MMO58004NF	5" (127 mm)	12 oz (0.34 kg)	0.4 ft-lbs	2.0 lbs	0.02 ft ²
MMO58007NF	14" (355.6 mm)	1 lb (0.45 kg)	3.3 ft-lbs	5.7 lbs	0.06 ft ²
MMO58010NF	18.5" (469.9 mm)	1.1 lbs (0.50 kg)	5.8 ft-lbs	7.6 lbs	0.09 ft ²

MAXRAD

Technical Data

Maximum Power: 25 watts
Polarization: Vertical linear
Normal Impedance: 50 ohms
VSWR: < 1.5:1 (MMO24005 series) < 2.0:1 (except MMO24005 series)
Wind Survival: 125 mph
Radome Material: White UV stable plastic
Connector: Type N female (except MMO24005 series). 12" or 36" RG-58/U pigtail with RP-TNC plug connector (MMO24005 series only). Other connector options available (MMO24005 series only).
Mounting Method: Pipe mount (included). MMOD Diversity mount bracket for MMO24005PTRPC (optional).

For detailed specifications, visit <http://antenna.pctel.com>.

White MAXRAD Fiberglass Base Station (MFB) Omnidirectional Antennas

The wireless broadband omnidirectional antennas are designed to provide maximum performance and reliability under the toughest weather conditions. These antennas feature a UV stable, vented radome that provides ultimate protection against weather elements. They can be mast or wall mounted.

Features

- UV stable, pultruded fiberglass radome. Allows outdoor installation even in harsh climates.
- Vented system design (all models except MFB24012). Provides reliable performance by protecting the electrical design against extreme moisture and/or temperatures.
- Thread relief on connector (all models, except MFB24012 which has a pigtail). Improved accessibility for taping reduces installation time and improves overall effectiveness.
- Internal o-ring seal in the base of the antenna with integrated connector at the base. Assures a watertight seal to prevent water from migrating into the antenna connector (all models, except MFB24012 which has a pigtail).
- Electrical downtilt options on select models. Provide system planners flexibility in challenging operating environments.



MFB49009 MFB58009 MFB24012



Vented System

MAXRAD

Technical Data

Maximum Power: 25 watts
Polarization: Vertical
Normal Impedance: 50 ohms
VSWR: < 1.5:1
Radome Material: UV resistant pultruded fiberglass
Lightning Protection: Not standard, but all models can be ordered with DC grounding. Add "DC" to the part number to order the antenna with DC grounding.
Termination: N female (except MFB24012). N male connector option available. To order, add "NM" to part number. N female, reverse polarity and reverse threaded connectors optional on most models. 16" RG-213 pigtail with N female connector (for model MFB24012 only.)
Mounting Base Diameter: 1.25 inches (all models except MFB24012) 1.5 inches (model MFB24012)
Mounting Method: MMK1924 - L bracket mount for wall or pipe mount (except MFB24010 and MFB24012) MMK8A - Aluminum extruded bracket for mast mounting (except model MFB24012) MMK11 - Ceiling mount bracket (for MFB24004, MFB24006 and MFB24008 only) MMK12 - Heavy duty bracket for mast mounting the MFB24012 MMK14 - Light duty mounting clamp for MFB24012



MMK1924



MMK8A



MFB24004
with MMK11



MMK12

For detailed specifications, visit <http://antenna.pctel.com>.

Antenna Electrical Specifications

Model	Frequency Range	Gain	Bandwidth @ 1.5:1 VSWR	Vertical Beamwidth @ 1/2 Power
MFB19008A	1850-1990 MHz	8 dBi	140 MHz	12°
MFB24004	2400-2483.5 MHz	4 dBi	100 MHz	30°
MFB24006	2400-2483.5 MHz	6 dBi	100 MHz	20°
MFB24008	2400-2483.5 MHz	8 dBi	100 MHz	13°
MFB24008DT3	2400-2483.5 MHz	8 dBi	100 MHz	13°
MFB24008DT5	2400-2483.5 MHz	8 dBi	100 MHz	13°
MFB24008DT7	2400-2483.5 MHz	8 dBi	100 MHz	13°
MFB24008DT12	2400-2483.5 MHz	8 dBi	100 MHz	13°
MFB24010	2400-2483.5 MHz	10 dBi	100 MHz	9°
MFB24012	2400-2500 MHz	12 dBi	100 MHz	7°
MFB25007	2500-2700 MHz	7 dBi	200 MHz	13°
MFB25007DT3	2500-2700 MHz	7 dBi	200 MHz	13°
MFB49009	4.9-5.0 GHz	9 dBi	100 MHz	8°
MFB51510	5.15-5.35 GHz	10 dBi	200 MHz	7°
MFB58009	5.725-5.875 GHz	9 dBi	150 MHz	8°
MFB58009PTNM	5.725-5.825 GHz	9 dBi	100 MHz	6°
MFB58010	5.725-5.825 GHz	10 dBi	100 MHz	6°

Mechanical Specifications

Model	Height	Weight (Mass)	Bending Moment at Rated Wind	Lateral Thrust at Rated Wind	Equivalent Flat Plate Area	Wind Survival
MFB19008A	24.0" (609.6 mm)	0.70 lbs (0.318 kg)	5.7 ft-lbs	5.9 lbs	.07 ft ²	125 mph
MFB24004	8.1" (205.7 mm)	0.34 lbs (0.154 kg)	0.7 ft-lbs	2.1 lbs	.02 ft ²	125 mph
MFB24006	11.6" (294.6 mm)	0.38 lbs (0.172 kg)	1.4 ft-lbs	3.0 lbs	.04 ft ²	125 mph
MFB24008	20.2" (513.1 mm)	0.50 lbs (0.226 kg)	4.4 ft-lbs	5.2 lbs	.06 ft ²	125 mph
MFB24008DT3	20.2" (513.1 mm)	0.50 lbs (0.226 kg)	4.4 ft-lbs	5.2 lbs	.06 ft ²	125 mph
MFB24008DT5	20.2" (513.1 mm)	0.50 lbs (0.226 kg)	4.4 ft-lbs	5.2 lbs	.06 ft ²	125 mph
MFB24008DT7	20.2" (513.1 mm)	0.50 lbs (0.226 kg)	4.4 ft-lbs	5.2 lbs	.06 ft ²	125 mph
MFB24008DT12	20.2" (513.1 mm)	0.50 lbs (0.226 kg)	4.4 ft-lbs	5.2 lbs	.06 ft ²	125 mph
MFB24010	36.0" (914.4 mm)	0.65 lbs (0.295 kg)	14.7 ft-lbs	10.1 lbs	.11 ft ²	125 mph
MFB24012	44.0" (1,118 mm)	3.00 lbs (1.400 kg)	41 ft-lbs	22.4 lbs	.25 ft ²	125 mph
MFB25007	20.2" (513.1 mm)	0.50 lbs (0.226 kg)	4.4 ft-lbs	5.2 lbs	.06 ft ²	125 mph
MFB25007DT3	20.2" (513.1 mm)	0.50 lbs (0.226 kg)	4.4 ft-lbs	5.2 lbs	.06 ft ²	125 mph
MFB49009	20.2" (513.1 mm)	0.5 lbs (0.226 kg)	4.4 ft-lbs	5.2 lbs	.06 ft ²	125 mph
MFB51510	20.2" (513.1 mm)	0.5 lbs (0.226 kg)	4.4 ft-lbs	5.2 lbs	.06 ft ²	125 mph
MFB58009	15.7" (398.8 mm)	0.43 lbs (0.195 kg)	2.7 ft-lbs	4.1 lbs	.046 ft ²	125 mph
MFB58009PTNM	20.2" (513.1 mm)	0.5 lbs (0.226 kg)	4.4 ft-lbs	5.2 lbs	.06 ft ²	125 mph
MFB58010	20.2" (513.1 mm)	0.5 lbs (0.226 kg)	4.4 ft-lbs	5.2 lbs	.06 ft ²	125 mph



MFB9153RPC

900/800 MHz MAXRAD Fiberglass Base Station (MFB) Omnidirectional Antennas

The MFB 900/800 MHz series are base matched half wave antennas encapsulated in heavy duty fiberglass radomes with a thick walled aluminum mounting base for reliable long term use. All models are DC grounded and UPS shippable.

Features

- White ultra-violet resistant pultruded fiberglass radome
- Thick walled aluminum mounting base
- Unity/3 dB/5 dB/7 dB models
- UPS shippable
- Exceptional value



MMK3



MMK1



MMK4



MMK6



MBSWM



MMK9

Technical Data

Maximum Power: 150 watts
Normal Impedance: 50 ohms
Radome Material: .65" pultruded white fiberglass
Radiator Material: Coated steel wire
Lightning Protection: DC grounded
Wind Survival: 100 mph
Termination: Unity and 3 dB models, N Female 5 dB and 7 dB models: N male with 16" jumper RPC: reverse polarity TNC
Mounting Base Diameter: 1-5/16"
Mounting Method: Mast or wall mounted. Mounting hardware is sold separately. MMK1: light duty mast mount for antennas under 30" MMK3: light duty mast mount for antennas over 30" MMK4: heavy duty mast mount MMK6: cast mounting bracket MMK9: Aluminum mast mount for 1-5/16" OD antennas MBSWM: wall mounting bracket for antennas over 30" (two are required)

For detailed specifications, visit <http://antenna.pctel.com>.

Antenna Electrical Specifications

Model	Frequency Range	Factory Tuned Frequency	Gain	Bandwidth @ 1.5:1 VSWR	Vertical Beamwidth @ 1/2 Power
MFB8587	406-866 MHz	858 MHz	7 dB	20 MHz	17°
MFB8130	806-866 MHz	813 MHz	Unity	40 MHz	75°
MFB8133	806-866 MHz	813 MHz	3 dB	30 MHz	40°
MFB8135	806-866 MHz	813 MHz	5 dB	20 MHz	22°
MFB8137	806-866 MHz	813 MHz	7 dB	20 MHz	17°
MFB8580	806-866 MHz	858 MHz	Unity	40 MHz	75°
MFB8583	806-866 MHz	858 MHz	3 dB	30 MHz	40°
MFB8585	806-866 MHz	858 MHz	5 dB	20 MHz	22°
MFB8350	824-896 MHz	835 MHz	Unity	40 MHz	75°
MFB8353	824-896 MHz	835 MHz	3 dB	30 MHz	40°
MFB8355	824-896 MHz	835 MHz	5 dB	20 MHz	22°
MFB8357	824-896 MHz	835 MHz	7 dB	20 MHz	17°
MFB8820	824-896 MHz	882 MHz	Unity	40 MHz	75°
MFB8823	824-896 MHz	882 MHz	3 dB	30 MHz	40°
MFB8825	824-896 MHz	882 MHz	5 dB	20 MHz	22°
MFB8827	824-896 MHz	882 MHz	7 dB	20 MHz	17°
MFB8960	896-940 MHz	898 MHz	Unity	40 MHz	75°
MFB8963	896-940 MHz	898 MHz	3 dB	30 MHz	40°
MFB8965	896-940 MHz	898 MHz	5 dB	20 MHz	22°
MFB9157RPC	896-940 MHz	915 MHz	7 dB	20 MHz	17°
MFB9380	896-940 MHz	938 MHz	Unity	40 MHz	75°
MFB9383	896-940 MHz	938 MHz	3 dB	30 MHz	40°
MFB9385	896-940 MHz	938 MHz	5 dB	20 MHz	22°
MFB9387	896-940 MHz	938 MHz	7 dB	20 MHz	17°
MFB8967	896-940 MHz	898 MHz	7 dB	20 MHz	17°
MFB9150	902-928 MHz	915 MHz	Unity	20 MHz	75°
MFB9153	902-928 MHz	915 MHz	3 dB	20 MHz	40°
MFB9153RPC	902-928 MHz	915 MHz	3 dB	20 MHz	40°
MFB9153STRPC	902-928 MHz	915 MHz	3 dB	20 MHz	40°
MFB9155	902-928 MHz	915 MHz	5 dB	20 MHz	22°
MFB9157	902-928 MHz	915 MHz	7 dB	20 MHz	17°
MFB9300	928-932 MHz	930 MHz	Unity	5 MHz	75°
MFB9303	928-932 MHz	930 MHz	3 dB	5 MHz	40°
MFB9305	928-932 MHz	930 MHz	5 dB	5 MHz	22°
MFB9307	928-932 MHz	930 MHz	7 dB	5 MHz	17°

Mechanical Specifications

Model	Height	Weight (Mass)	Bending Moment at Rated Wind	Lateral Thrust at Rated Wind	Equivalent Flat Plate Area
MFB8587*	96"	4.00 lbs	62.5 ft-lbs	15.8 lbs	.44 sq ft
MFB8130	14"	.75 lbs	1.4 ft-lbs	2.3 lbs	.06 sq ft
MFB8133	26"	1.25 lbs	4.7 ft-lbs	4.3 lbs	.12 sq ft
MFB8135*	48"	1.75 lbs	14.2 ft-lbs	8.0 lbs	.22 sq ft
MFB8137*	96"	4.00 lbs	62.5 ft-lbs	15.8 lbs	.44 sq ft
MFB8580	14"	.75 lbs	1.4 ft-lbs	2.3 lbs	.06 sq ft
MFB8583	26"	1.25 lbs	4.7 ft-lbs	4.3 lbs	.12 sq ft
MFB8585*	48"	1.75 lbs	14.2 ft-lbs	8.0 lbs	.22 sq ft
MFB8350	14"	.75 lbs	1.4 ft-lbs	2.3 lbs	.06 sq ft
MFB8353	26"	1.25 lbs	4.7 ft-lbs	4.3 lbs	.12 sq ft
MFB8355*	48"	1.75 lbs	14.2 ft-lbs	8.0 lbs	.22 sq ft
MFB8357*	96"	4.00 lbs	62.5 ft-lbs	15.8 lbs	.44 sq ft
MFB8820	14"	.75 lbs	1.4 ft-lbs	2.3 lbs	.06 sq ft
MFB8823	26"	1.25 lbs	4.7 ft-lbs	4.3 lbs	.12 sq ft
MFB8825*	48"	1.75 lbs	14.2 ft-lbs	8.0 lbs	.22 sq ft
MFB8827*	96"	4.00 lbs	62.5 ft-lbs	15.8 lbs	.44 sq ft
MFB8960	14"	.75 lbs	1.4 ft-lbs	2.3 lbs	.06 sq ft
MFB8963	26"	1.25 lbs	4.7 ft-lbs	4.3 lbs	.12 sq ft
MFB8965*	48"	1.75 lbs	14.2 ft-lbs	8.0 lbs	.22 sq ft
MFB9157RPC	96"	4.00 lbs	62.5 ft-lbs	15.8 lbs	.44 sq ft
MFB9380	14"	.75 lbs	1.4 ft-lbs	2.3 lbs	.06 sq ft
MFB9383	26"	1.25 lbs	4.7 ft-lbs	4.3 lbs	.12 sq ft
MFB9385*	48"	1.75 lbs	14.2 ft-lbs	8.0 lbs	.22 sq ft
MFB9387*	96"	4.00 lbs	62.5 ft-lbs	15.8 lbs	.44 sq ft
MFB8967*	96"	4.00 lbs	62.5 ft-lbs	15.8 lbs	.44 sq ft
MFB9150	14"	.75 lbs	1.4 ft-lbs	2.3 lbs	.06 sq ft
MFB9153	23.25"	1.25 lbs	4.7 ft-lbs	4.3 lbs	.12 sq ft
MFB9153RPC	23.25"	1.25 lbs	4.7 ft-lbs	4.3 lbs	.12 sq ft
MFB9153STRPC	23.25"	1.25 lbs	4.7 ft-lbs	4.3 lbs	.12 sq ft
MFB9155*	48"	1.75 lbs	14.2 ft-lbs	8.0 lbs	.22 sq ft
MFB9157*	96"	4.00 lbs	62.5 ft-lbs	15.8 lbs	.44 sq ft
MFB9300	14"	.75 lbs	1.4 ft-lbs	2.3 lbs	.06 sq ft
MFB9303	26"	1.25 lbs	4.7 ft-lbs	4.3 lbs	.12 sq ft
MFB9305*	48"	1.75 lbs	14.2 ft-lbs	8.0 lbs	.22 sq ft
MFB9307*	96"	4.00 lbs	62.5 ft-lbs	15.8 lbs	.44 sq ft

* For N Female connector add \$10.00. Mount sold separately.

746-869 MHz, 3 dB Gain MAXRAD Fiberglass Base Station (MFB) Omnidirectional Antennas

This is an omnidirectional base station antenna that provides 3 dB gain within the specified frequency. It is designed for mast mounting.

Features

- N female connector
- Thick walled aluminum mounting base
- White fiberglass radome

Antenna Electrical Specifications

Model	Frequency Range	Nominal Gain	Vertical Beamwidth at Half Power	Horizontal Beamwidth at Half Power
MFBW7463	746-869 MHz	3 dB	40°	360°

Mechanical Specifications

Model	Antenna Length	Weight (Mass)	Temperature Range
MFBW7463	27"	1.5 lbs	-40°C to +70°C

Model	Lateral Thrust at Rated Wind with 1/2" of Ice	Equivalent Flat Plate Area with 1/2" of Ice	Wind Survival with 1/2" of Ice
MFBW7463	20 lbf	.22 ft ²	125 mph


MAXRAD

Technical Data

General Specifications: 746-869 MHz omnidirectional antenna
Maximum Power: 50 watts
Normal Impedance: 50 ohms
Polarization: Vertical
VSWR: < 1.8:1
Termination: N female
Mounting Method: MMK12 heavy duty cast mast mount (sold separately)

For detailed specifications, visit <http://antenna.pctel.com>.



MFB4505

UHF White MAXRAD Fiberglass Base Station (MFB) Omnidirectional Antennas

These 340-512 MHz white fiberglass omnidirectional antennas series consists of base matched half wave antennas encapsulated in heavy duty fiberglass radomes with a thick walled aluminum mounting base for reliable long term use. All models are DC grounded and are UPS shippable.

Features

- UPS shippable
- Effective “J” pole design requires no radials or ground plane
- Exceptional value



Technical Data

Maximum Power: 250 watts
Normal Impedance: 50 ohms
Radome Material: Pultruded white fiberglass
Radiator Material: Coated steel wire
Lightning Protection: DC grounded
Wind Survival: 100 mph
Termination: N male with 16” jumper; N female and SO-239 are optional
Mounting Hardware: MMK1: light duty mast mounting for antennas under 30” MMK3: light duty mast mounting for antennas over 30” MMK4: heavy duty mast mounting bracket MMK6: cast mount bracket Hardware is sold and ordered separately MMK9: Aluminum mast mount for 1-5/16” OD antennas (two required with the 10” sleeve antenna models) MBSWM: wall mounting bracket for antennas over 30” (2 required)

For detailed specifications, visit <http://antenna.pctel.com>.



MMK1



MMK3



MMK4



MMK6



MBSWM



MMK9

Antenna Electrical Specifications

Model	Frequency Range	Factory Tuned Frequency	Gain	Bandwidth @ 1.5:1 VSWR	Vertical Beamwidth @ 1/2 Power
MFB3400	340-360 MHz	350 MHz	Unity	10 MHz	90°
MFB3883	388-398 MHz	393 MHz	3 dB	10 MHz	38°
MFB3955	390-400 MHz	395 MHz	5 dB	10 MHz	27°
MFB4060	406-416 MHz	411 MHz	Unity	10 MHz	90°
MFB4063	406-416 MHz	411 MHz	3 dB	10 MHz	38°
MFB4065	406-416 MHz	411 MHz	5 dB	10 MHz	27°
MFB4100	410-420 MHz	415 MHz	Unity	10 MHz	90°
MFB4103	410-420 MHz	415 MHz	3 dB	10 MHz	38°
MFB4105	410-420 MHz	415 MHz	5 dB	10 MHz	27°
MFB4200	420-430 MHz	425 MHz	Unity	10 MHz	90°
MFB4203	420-430 MHz	425 MHz	3 dB	10 MHz	38°
MFB4205	420-430 MHz	425 MHz	5 dB	10 MHz	27°
MFB4300	430-440 MHz	435 MHz	Unity	10 MHz	90°
MFB4303	430-440 MHz	435 MHz	3 dB	10 MHz	38°
MFB4305	430-440 MHz	435 MHz	5 dB	10 MHz	27°
MFB4400	440-450 MHz	445 MHz	Unity	10 MHz	90°
MFB4403	440-450 MHz	445 MHz	3 dB	10 MHz	38°
MFB4405	440-450 MHz	445 MHz	5 dB	10 MHz	27°
MFB4500	450-460 MHz	455 MHz	Unity	10 MHz	90°
MFB4503	450-460 MHz	455 MHz	3 dB	10 MHz	38°
MFB4505	450-460 MHz	455 MHz	5 dB	10 MHz	27°
MFB4600	460-470 MHz	465 MHz	Unity	10 MHz	90°
MFB4603	460-470 MHz	465 MHz	3 dB	10 MHz	38°
MFB4605	460-470 MHz	465 MHz	5 dB	10 MHz	27°
MFB4700	470-480 MHz	475 MHz	Unity	10 MHz	90°
MFB4703	470-480 MHz	475 MHz	3 dB	10 MHz	38°
MFB4705	470-480 MHz	475 MHz	5 dB	10 MHz	27°
MFB4800	480-490 MHz	485 MHz	Unity	10 MHz	90°
MFB4803	480-490 MHz	485 MHz	3 dB	10 MHz	38°
MFB4805	480-490 MHz	485 MHz	5 dB	10 MHz	27°
MFB4900	490-500 MHz	495 MHz	Unity	10 MHz	90°
MFB4903	490-500 MHz	495 MHz	3 dB	10 MHz	38°
MFB4905	490-500 MHz	495 MHz	5 dB	10 MHz	27°
MFB5000	500-512 MHz	506 MHz	Unity	10 MHz	90°
MFB5003	500-512 MHz	506 MHz	3 dB	10 MHz	38°
MFB5005	500-512 MHz	506 MHz	5 dB	10 MHz	27°

Mechanical Specifications

Model	Weight (Mass)	Height	Bending Moment at Rated Wind	Lateral Thrust at Rated Wind	Equivalent Flat Plate Area
MFB3400	1.0 lbs	30"	5.2 ft-lb	5 lbs	.11 sq ft
MFB3883	4.0 lbs	71"	29.0 ft-lb	10.8 lbs	.30 sq ft
MFB3955	4.5 lbs	77"	40.4 ft-lb	12.6 lbs	.35 sq ft
MFB4060	1.0 lbs	30"	5.2 ft-lb	5 lbs	.11 sq ft
MFB4063	4.0 lbs	71"	29.0 ft-lb	10.8 lbs	.30 sq ft
MFB4065	4.5 lbs	77"	40.4 ft-lb	12.6 lbs	.35 sq ft
MFB4100	1.0 lbs	30"	5.2 ft-lb	5 lbs	.11 sq ft
MFB4103	4.0 lbs	71"	29.0 ft-lb	10.8 lbs	.30 sq ft
MFB4105	4.5 lbs	77"	40.4 ft-lb	12.6 lbs	.35 sq ft
MFB4200	1.0 lbs	30"	5.2 ft-lb	5 lbs	.11 sq ft
MFB4203	4.0 lbs	71"	29.0 ft-lb	10.8 lbs	.30 sq ft
MFB4205	4.5 lbs	77"	40.4 ft-lb	12.6 lbs	.35 sq ft
MFB4300	1.0 lbs	30"	5.2 ft-lb	5 lbs	.11 sq ft
MFB4303	4.0 lbs	71"	29.0 ft-lb	10.8 lbs	.30 sq ft
MFB4305	4.5 lbs	77"	40.4 ft-lb	12.6 lbs	.35 sq ft
MFB4400	1.0 lbs	30"	5.2 ft-lb	5 lbs	.11 sq ft
MFB4403	4.0 lbs	71"	29.0 ft-lb	10.8 lbs	.30 sq ft
MFB4405	4.5 lbs	77"	40.4 ft-lb	12.6 lbs	.35 sq ft
MFB4500	1.0 lbs	30"	5.2 ft-lb	5 lbs	.11 sq ft
MFB4503	4.0 lbs	71"	29.0 ft-lb	10.8 lbs	.30 sq ft
MFB4505	4.5 lbs	77"	40.4 ft-lb	12.6 lbs	.35 sq ft
MFB4600	1.0 lbs	30"	5.2 ft-lb	5 lbs	.11 sq ft
MFB4603	4.0 lbs	71"	29.0 ft-lb	10.8 lbs	.30 sq ft
MFB4605	4.5 lbs	77"	40.4 ft-lb	12.6 lbs	.35 sq ft
MFB4700	1.0 lbs	30"	5.2 ft-lb	5 lbs	.11 sq ft
MFB4703	4.0 lbs	71"	29.0 ft-lb	10.8 lbs	.30 sq ft
MFB4705	4.5 lbs	77"	40.4 ft-lb	12.6 lbs	.35 sq ft
MFB4800	1.0 lbs	30"	5.2 ft-lb	5 lbs	.11 sq ft
MFB4803	4.0 lbs	71"	29.0 ft-lb	10.8 lbs	.30 sq ft
MFB4805	4.5 lbs	77"	40.4 ft-lb	12.6 lbs	.35 sq ft
MFB4900	1.0 lbs	30"	5.2 ft-lb	5 lbs	.11 sq ft
MFB4903	4.0 lbs	71"	29.0 ft-lb	10.8 lbs	.30 sq ft
MFB4905	4.5 lbs	77"	40.4 ft-lb	12.6 lbs	.35 sq ft
MFB5000	1.0 lbs	30"	5.2 ft-lb	5 lbs	.11 sq ft
MFB5003	4.0 lbs	71"	29.0 ft-lb	10.8 lbs	.30 sq ft
MFB5005	4.5 lbs	77"	40.4 ft-lb	12.6 lbs	.35 sq ft

Mount sold separately (see above). For SO-239 connector add \$27.00; for N female connector add \$10.00.

VHF White MAXRAD Fiberglass Base Station (MFB) Omnidirectional Antennas

The 118-225 MHz white fiberglass antenna series consists of base matched half wave antennas encapsulated in a heavy duty fiberglass radomes with a thick walled aluminum mounting base for reliable long term use. All models are DC grounded and UPS shippable.

Features

- Effective “J” pole design requires no radials or ground plane
- White ultra-violet resistant pultruded fiberglass radome
- Thick-walled aluminum mounting base
- Unity/3 dB models
- UPS shippable

MAXRAD

Technical Data

Normal Impedance: 50 ohms
VSWR: < 1.5:1 VSWR
Radome Material: Pultruded white fiberglass
Radiator Material: Coated steel wire
Lightning Protection: DC grounded
Wind Survival: 100 mph
Termination: N male with 16” jumper; N female and SO-239 optional
Mounting Base Diameter: 1-5/16”
Mounting Method: (Sold separately) MMK3: light duty mast mounting MMK4: heavy duty mast mounting MMK6: cast mount bracket MMK9: Aluminum mast mount for 1-5/16” OD antennas (two required with the 10” sleeve antenna models) MBSWM: wall mounting bracket (2 required)

For detailed specifications, visit <http://antenna.pctel.com>.



MFB VHF Unity Model 3 dB version includes exposed whip



MMK3



MMK4



MMK6



MBSWM



MMK9

Antenna Electrical Specifications

Model	Frequency Range	Factory Tuned Frequency	Gain	Bandwidth @ 1.5:1 VSWR	Vertical Beamwidth @ 1/2 Power
MFB1180	118-124 MHz	121 MHz	Unity	2.0 MHz	80°
MFB1270	127-130 MHz	129 MHz	Unity	2.0 MHz	80°
MFB1400	140-144 MHz	142 MHz	Unity	4.0 MHz	80°
MFB1440	144-150 MHz	147 MHz	Unity	3.0 MHz	80°
MFB1443	144-150 MHz	144 MHz	3 dB*	3.5 MHz	29°
MFB1500	150-156 MHz	153 MHz	Unity	3.0 MHz	80°
MFB1503	150-156 MHz	150 MHz	3 dB*	3.5 MHz	29°
MFB1560	156-162 MHz	159 MHz	Unity	3.0 MHz	80°
MFB1563	156-162 MHz	156 MHz	3 dB*	3.5 MHz	29°
MFB1620	162-168 MHz	165 MHz	Unity	3.0 MHz	80°
MFB1623	162-168 MHz	162 MHz	3 dB*	3.5 MHz	29°
MFB1680	168-174 MHz	171 MHz	Unity	3.0 MHz	80°
MFB1683	168-174 MHz	168 MHz	3 dB*	3.5 MHz	29°
MFB2200	220-225 MHz	223 MHz	Unity	6.0 MHz	75°
MFB2203	220-225 MHz	220 MHz	3 dB*	5.0 MHz	37°

Mechanical Specifications

Model	Height	Weight (Mass)	Bending Moment at Rated Wind	Lateral Thrust at Rated Wind	Equivalent Flat Plate Area
MFB1180	71"	3 lbs	29.2 ft-lbs	10.8 lbs	.30 ft ²
MFB1270	71"	3 lbs	29.2 ft-lbs	10.8 lbs	.30 ft ²
MFB1400	71"	3 lbs	29.2 ft-lbs	10.8 lbs	.30 ft ²
MFB1440	71"	3 lbs	29.2 ft-lbs	10.8 lbs	.30 ft ²
MFB1443	129"	4 lbs	62.5 ft-lbs	15.8 lbs	.44 ft ²
MFB1500	71"	3 lbs	29.2 ft-lbs	10.8 lbs	.30 ft ²
MFB1503	129"	4 lbs	62.5 ft-lbs	15.8 lbs	.44 ft ²
MFB1560	71"	3 lbs	29.2 ft-lbs	10.8 lbs	.30 ft ²
MFB1563	129"	4 lbs	62.5 ft-lbs	15.8 lbs	.44 ft ²
MFB1620	71"	3 lbs	29.2 ft-lbs	10.8 lbs	.30 ft ²
MFB1623	129"	4 lbs	62.5 ft-lbs	15.8 lbs	.44 ft ²
MFB1680	71"	3 lbs	29.2 ft-lbs	10.8 lbs	.30 ft ²
MFB1683	129"	4 lbs	62.5 ft-lbs	15.8 lbs	.44 ft ²
MFB2200	71"	3 lbs	29.2 ft-lbs	10.8 lbs	.30 ft ²
MFB2203	129"	4 lbs	62.5 ft-lbs	15.8 lbs	.44 ft ²

*Note: 3 dB gain antennas are factory tuned to the lowest side of the frequency range. Field tuning to the desired frequency is required. Mount sold separately. For SO-239 connector, please add \$27.00; for N female connector, please add \$10.00.

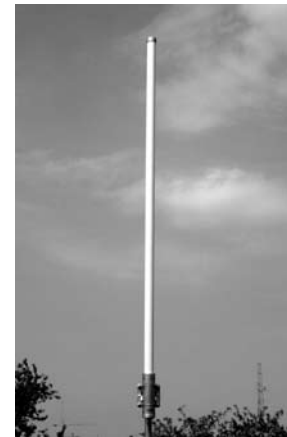
SWIFT Series, IMD Rated UHF Omnidirectional Antennas

The SWIFT range of collinears is specially designed for Public Safety and Public Access Digital PMR networks.

Corporate feed design ensures true omnidirectional patterns with excellent control of electrical tilt. The radiation pattern of the SWIFTOM is omnidirectional better than ± 0.5 dB. The SWIFTOF radiation pattern is directional with front-to-back ratio of 4 dB. This provides extra gain to facilitate network planning for optimized coverage in a preferred direction.

The outer radome is a glass fibre pultrusion. The radiating elements are copper laid on glass-reinforced substrate. The central support of rectangular brass section facilitates DC grounding for lightning protection.

This innovative antenna series offers network planners maximum flexibility within a compact design.



Antenna Electrical Specifications

Model	Frequency Range	Gain (1/2 wave)	H-plane Beamwidth	E-plane Beamwidth	Electrical Downtilt
SWIFTOM390T0	380-400 MHz	5 dBd (7.2 dBi)	Circular to within ± 0.5 dB	$\pm 9^\circ$	0
SWIFTOM390T6	380-400 MHz	5 dBd (7.2 dBi)	Circular to within ± 0.5 dB	$\pm 9^\circ$	6°
SWIFTOM390T8	380-400 MHz	5 dBd (7.2 dBi)	Circular to within ± 0.5 dB	$\pm 9^\circ$	8°
SWIFTOF390T0	380-400 MHz	7.5 dBd (9.7 dBi)	$\pm 100^\circ$	$\pm 9^\circ$	0°
SWIFTOF390T6	380-400 MHz	7.5 dBd (9.7 dBi)	$\pm 100^\circ$	$\pm 9^\circ$	6°
SWIFTOF390T8	380-400 MHz	7.5 dBd (9.7 dBi)	$\pm 100^\circ$	$\pm 9^\circ$	8°
SWIFTOM420T0	410-430 MHz	5 dBd (7.2 dBi)	Circular to within ± 0.5 dB	$\pm 9^\circ$	0°
SWIFTOM420T6	410-430 MHz	5 dBd (7.2 dBi)	Circular to within ± 0.5 dB	$\pm 9^\circ$	6°
SWIFTOM420T8	410-430 MHz	5 dBd (7.2 dBi)	Circular to within ± 0.5 dB	$\pm 9^\circ$	8°
SWIFTOF420T0	410-430 MHz	7.5 dBd (9.7 dBi)	$\pm 100^\circ$	$\pm 9^\circ$	0°
SWIFTOF420T6	410-430 MHz	7.5 dBd (9.7 dBi)	$\pm 100^\circ$	$\pm 9^\circ$	6°
SWIFTOF420T8	410-430 MHz	7.5 dBd (9.7 dBi)	$\pm 100^\circ$	$\pm 9^\circ$	8°

Mechanical Specifications

Model	Antenna Length	Weight (Mass)	Grounding Cross Section
Omnidirectional Models*	9.186' (2800 mm)	10.58 lbs (4.8 kg)	2.2 in ² (57 mm ²)
Offset Models**	9.186' (2800 mm)	10.58 lbs (4.8 kg)	1.7 in ² (42 mm ²)

* Models with 5 dBd gain.

** Models with 7.5 dBd gain.

MAXRAD

Technical Data

Maximum Power: 250 watts
Polarization: Vertical
Normal Impedance: 50 ohms
VSWR: < 1.5:1 Typical
Color: Grey
Radome Material: Glass Fibre Tube
Radiator Material: (On glass-reinforced substrate) 2.56" diameter (65 mm) Copper
Lightning Protection: DC Ground
Support Tube: 3.5" diameter (90 mm) Aluminium Casting
Horizontal Thrust: 379N (39 kg) @ 200 km/hr 592N (61 kg) @ 250 kg/hr
Add Rated Wind Velocity: On horizontal tube mount: 124 mph (200 km/hr) On vertical tube mount: 155 mph (250 km/hr)
Intermodulation: IMP3 < -140 dBc
Connector: 7/16 DIN female socket
Mounting Hardware: 50-115 mm Ø pipe Heavy duty cross-over/parallel (part #9641383)

For detailed specifications, visit <http://antenna.pctel.com>.

CATC Series Fiberglass Omnidirectional Antennas



Type CATC is a medium gain collinear antenna suitable for masthead mounting or stand-off mounting from a tower or a mast. A high degree of decoupling from the support structure and the feeder cable is achieved without the use of groundplane rods. The radiating elements are encapsulated in low-loss polyurethane foam which bonds them firmly to the inside of the radiator housing thus ensuring good mechanical stability. The antenna is fitted with a short length of URM67 coaxial cable terminated in a type N series plug.

Features

- Slim tapered design
- Integral mounting clamp
- Rugged glass fibre protection

MAXRAD

Technical Data

Maximum Power: See Antenna Electrical Specifications
Polarization: Vertical
Nominal Impedance: 50 ohms
VSWR: < 1.5:1 typical
Radiator Housing Diameter: 32 mm max O.D
Radiator Housing: Green tapered glass fibre tube
Radiator Material: Copper
Lightning Protection: DC ground
Termination: Type N male (Other terminations available)
Feeder Tail: 3 ft (915 mm) URM67 coaxial cable
Mounting: Integral clamp mounts to a 32-51 mm pipe for in-line, offset or stand-off fixing
Integral clamp: Aluminium casting, stainless steel U-bolts and fasteners

For detailed specifications, visit <http://antenna.pctel.com>.

Antenna Electrical Specifications

Model	Frequency Range	Centre Frequency	Gain	Bandwidth	E-Plane Beamwidth (-3 dB)	Maximum Power
CATC140	138-147 MHz	142.5 MHz	3 dBd (5.2 dBi)	6% typical	36° typical	100 watts
CATC150	142-152 MHz	147.0 MHz	3 dBd (5.2 dBi)	6% typical	36° typical	100 watts
CATC155	147-157 MHz	152.0 MHz	3 dBd (5.2 dBi)	6% typical	36° typical	100 watts
CATC160	152-163 MHz	157.5 MHz	3 dBd (5.2 dBi)	6% typical	36° typical	100 watts
CATC165	158-168 MHz	163.0 MHz	3 dBd (5.2 dBi)	6% typical	36° typical	100 watts
CATC170	163-174 MHz	168.5 MHz	3 dBd (5.2 dBi)	6% typical	36° typical	100 watts
CATC180	177-188 MHz	182.5 MHz	3 dBd (5.2 dBi)	6% typical	36° typical	100 watts
CATC230	221-235 MHz	228.0 MHz	3 dBd (5.2 dBi)	6% typical	36° typical	100 watts
CATC390/G3	380-396 MHz	388.0 MHz	3 dBd (5.2 dBi)	4% typical	32° typical	75 watts
CATC395/G3	387-404 MHz	395.5 MHz	3 dBd (5.2 dBi)	4% typical	32° typical	75 watts
CATC410/G3	403-421 MHz	412.0 MHz	3 dBd (5.2 dBi)	4% typical	32° typical	75 watts
CATC420/G3	412-430 MHz	421.0 MHz	3 dBd (5.2 dBi)	4% typical	32° typical	75 watts
CATC430/G3	421-439 MHz	430.0 MHz	3 dBd (5.2 dBi)	4% typical	32° typical	75 watts
CATC440/G3	430-450 MHz	440.0 MHz	3 dBd (5.2 dBi)	4% typical	32° typical	75 watts
CATC450/G3	441-460 MHz	450.5 MHz	3 dBd (5.2 dBi)	4% typical	32° typical	75 watts
CATC460/G3	450-470 MHz	460.0 MHz	3 dBd (5.2 dBi)	4% typical	32° typical	75 watts
CATC390	380-396 MHz	388.0 MHz	5 dBd (7.2 dBi)	4% typical	16° typical	75 watts
CATC410	403-421 MHz	412.0 MHz	5 dBd (7.2 dBi)	4% typical	16° typical	75 watts
CATC420	412-430 MHz	421.0 MHz	5 dBd (7.2 dBi)	4% typical	16° typical	75 watts
CATC430	421-439 MHz	430.0 MHz	5 dBd (7.2 dBi)	4% typical	16° typical	75 watts
CATC440	430-450 MHz	440.0 MHz	5 dBd (7.2 dBi)	4% typical	16° typical	75 watts
CATC450	441-460 MHz	450.5 MHz	5 dBd (7.2 dBi)	4% typical	16° typical	75 watts
CATC460	450-470 MHz	460.0 MHz	5 dBd (7.2 dBi)	4% typical	16° typical	75 watts

Mechanical Specifications

Model	Overall Length	Weight (Mass)	Rated Wind Velocity	Horizontal Thrust at Rated Wind
CATC140	8.63 ft (2630 mm)	2.65 lbs (1.2 kg)	119.93 mph (193 km/h)	18.10 lbs (8.2 kg)
CATC150	8.63 ft (2630 mm)	2.65 lbs (1.2 kg)	119.93 mph (193 km/h)	18.10 lbs (8.2 kg)
CATC155	8.63 ft (2630 mm)	2.65 lbs (1.2 kg)	119.93 mph (193 km/h)	18.10 lbs (8.2 kg)
CATC160	8.63 ft (2630 mm)	2.65 lbs (1.2 kg)	119.93 mph (193 km/h)	18.10 lbs (8.2 kg)
CATC165	8.63 ft (2630 mm)	2.65 lbs (1.2 kg)	119.93 mph (193 km/h)	18.10 lbs (8.2 kg)
CATC170	8.63 ft (2630 mm)	2.65 lbs (1.2 kg)	119.93 mph (193 km/h)	18.10 lbs (8.2 kg)
CATC180	8.63 ft (2630 mm)	2.65 lbs (1.2 kg)	119.93 mph (193 km/h)	18.10 lbs (8.2 kg)
CATC230	8.63 ft (2630 mm)	2.65 lbs (1.2 kg)	119.93 mph (193 km/h)	18.10 lbs (8.2 kg)
CATC390/G3	4.79 ft (1460 mm)	1.87 lbs (0.85 kg)	119.93 mph (193 km/h)	13.49 lbs (6.1 kg)
CATC395/G3	4.79 ft (1460 mm)	1.87 lbs (0.85 kg)	119.93 mph (193 km/h)	13.49 lbs (6.1 kg)
CATC410/G3	4.79 ft (1460 mm)	1.87 lbs (0.85 kg)	119.93 mph (193 km/h)	13.49 lbs (6.1 kg)
CATC420/G3	4.79 ft (1460 mm)	1.87 lbs (0.85 kg)	119.93 mph (193 km/h)	13.49 lbs (6.1 kg)
CATC430/G3	4.79 ft (1460 mm)	1.87 lbs (0.85 kg)	119.93 mph (193 km/h)	13.49 lbs (6.1 kg)
CATC440/G3	4.79 ft (1460 mm)	1.87 lbs (0.85 kg)	119.93 mph (193 km/h)	13.49 lbs (6.1 kg)
CATC450/G3	4.79 ft (1460 mm)	1.87 lbs (0.85 kg)	119.93 mph (193 km/h)	13.49 lbs (6.1 kg)
CATC460/G3	4.79 ft (1460 mm)	1.87 lbs (0.85 kg)	119.93 mph (193 km/h)	13.49 lbs (6.1 kg)
CATC390	8.63 ft (2630 mm)	2.65 lbs (1.2 kg)	119.93 mph (193 km/h)	18.10 lbs (8.2 kg)
CATC410	8.63 ft (2630 mm)	2.65 lbs (1.2 kg)	119.93 mph (193 km/h)	18.10 lbs (8.2 kg)
CATC420	8.63 ft (2630 mm)	2.65 lbs (1.2 kg)	119.93 mph (193 km/h)	18.10 lbs (8.2 kg)
CATC430	8.63 ft (2630 mm)	2.65 lbs (1.2 kg)	119.93 mph (193 km/h)	18.10 lbs (8.2 kg)
CATC440	8.63 ft (2630 mm)	2.65 lbs (1.2 kg)	119.93 mph (193 km/h)	18.10 lbs (8.2 kg)
CATC450	8.63 ft (2630 mm)	2.65 lbs (1.2 kg)	119.93 mph (193 km/h)	18.10 lbs (8.2 kg)
CATC460	8.63 ft (2630 mm)	2.65 lbs (1.2 kg)	119.93 mph (193 km/h)	18.10 lbs (8.2 kg)

UHF/VHF End Fed Dipole Fiberglass Omnidirectional Antennas

Type RDTC is an end-fed vertical dipole suitable for masthead mounting or stand-off mounting from a tower or mast. A high degree of decoupling from the support structure and the feeder cable is achieved without the use of groundplane rods. The radiating elements are encapsulated in low-loss polyurethane foam which bonds them firmly to the inside of the radiator housing thus ensuring good mechanical stability. The antenna is fitted with a short length of URM67 coaxial cable terminated in a type N series plug.

Features

- Unity gain
- Slim tapered design
- Integral mounting clamp
- Rugged glass fibre protection
- Digital PMR applications



MAXRAD

Technical Data

Maximum Power: 100 watts
Polarization: Vertical
Nominal Impedance: 50 ohms
VSWR: < 1.5:1 typical
Radiator Housing Diameter: 32 mm max O.D
Radiator Housing: Green tapered glass fibre tube
Radiator Material: Copper
Lightning Protection: DC ground
Termination: N male (Other terminations available)
Feeder Tail: 3 ft (915 mm) URM67 coaxial cable
Mounting: Integral clamp mounts to a 32-51 mm pipe for in-line, offset or stand-off fixing
Integral clamp: Aluminium casting, stainless steel U-bolts and fasteners

For detailed specifications, visit <http://antenna.pctel.com>.

Antenna Electrical Specifications

Model	Frequency Band	Gain (Rel. 1/2 wave dipole)	Bandwidth	E-Plane Beamwidth (-3 dB)
RDTC80	79-85 MHz	Unity	8% typical	90° typical
RDTC85	83-89 MHz	Unity	8% typical	90° typical
RDTC130	126-138 MHz	Unity	8% typical	90° typical
RDTC150	143-156 MHz	Unity	8% typical	90° typical
RDTC155	148-160 MHz	Unity	8% typical	90° typical
RDTC160	152-167 MHz	Unity	8% typical	90° typical
RDTC165	157-171 MHz	Unity	8% typical	90° typical
RDTC170	160-176 MHz	Unity	8% typical	90° typical
RDTC380	365-395 MHz	Unity	8% typical	90° typical
RDTC400	380-410 MHz	Unity	8% typical	90° typical
RDTC410	395-427 MHz	Unity	8% typical	90° typical
RDTC430	410-440 MHz	Unity	8% typical	90° typical
RDTC440	425-459 MHz	Unity	8% typical	90° typical
RDTC460	440-480 MHz	Unity	8% typical	90° typical

Mechanical Specifications

Model	Antenna Length	Weight (Mass)	Rated Wind Velocity	Windloading @ 119.93 mph (193 km/h)
RDTC80	8.6' (2630 mm)	2.6 lbs (1.2 kg)	119.93 mph (193 km/h)	18.1 lbs (8.2 kg)
RDTC85	8.6' (2630 mm)	2.6 lbs (1.2 kg)	119.93 mph (193 km/h)	18.1 lbs (8.2 kg)
RDTC130	6.1' (1850 mm)	2.2 lbs (1.0 kg)	119.93 mph (193 km/h)	15.0 lbs (6.8 kg)
RDTC150	4.8' (1460 mm)	1.9 lbs (0.85 kg)	119.93 mph (193 km/h)	13.4 lbs (6.1 kg)
RDTC155	4.8' (1460 mm)	1.9 lbs (0.85 kg)	119.93 mph (193 km/h)	13.4 lbs (6.1 kg)
RDTC160	4.8' (1460 mm)	1.9 lbs (0.85 kg)	119.93 mph (193 km/h)	13.4 lbs (6.1 kg)
RDTC165	4.8' (1460 mm)	1.9 lbs (0.85 kg)	119.93 mph (193 km/h)	13.4 lbs (6.1 kg)
RDTC170	4.8' (1460 mm)	1.9 lbs (0.85 kg)	119.93 mph (193 km/h)	13.4 lbs (6.1 kg)
RDTC380	2.8' (860 mm)	1.5 lbs (0.7 kg)	119.93 mph (193 km/h)	6.8 lbs (3.1 kg)
RDTC400	2.8' (860 mm)	1.5 lbs (0.7 kg)	119.93 mph (193 km/h)	6.8 lbs (3.1 kg)
RDTC410	2.8' (860 mm)	1.5 lbs (0.7 kg)	119.93 mph (193 km/h)	6.8 lbs (3.1 kg)
RDTC430	2.8' (860 mm)	1.5 lbs (0.7 kg)	119.93 mph (193 km/h)	6.8 lbs (3.1 kg)
RDTC440	2.8' (860 mm)	1.5 lbs (0.7 kg)	119.93 mph (193 km/h)	6.8 lbs (3.1 kg)
RDTC460	2.8' (860 mm)	1.5 lbs (0.7 kg)	119.93 mph (193 km/h)	6.8 lbs (3.1 kg)

VHF/UHF Wideband End Fed Dipole Fiberglass Omnidirectional Antennas

Type WDTC is a wide band end-fed vertical dipole suitable for masthead mounting or stand-off mounting from a tower or mast. A high degree of decoupling from the support structure and the feeder cable is achieved without the use of groundplane rods.

The radiating elements are encapsulated in low-loss polyurethane foam which bonds them firmly to the inside of the radiator housing thus ensuring good mechanical stability. The antenna is fitted with a short length of URM67 coaxial cable terminated in a type N series plug.

Features

- Unity gain
- Exceptional bandwidth
- Slim tapered design
- Integral mounting clamp
- Rugged glass fibre protection
- Digital PMR applications



MAXRAD

Technical Data

Maximum Power: 100 watts
Polarization: Vertical
Nominal Impedance: 50 ohms
VSWR: < 1.7:1 typical
Radiator Housing Diameter: 32 mm max OD
Radiator Housing: Green tapered glass fibre tube
Radiator Material: Copper
Lightning Protection: DC ground
Termination: N male (Other terminations available)
Feeder Tail: 3 ft (915 mm) URM67 coaxial cable
Mounting: Integral clamp mounts to a 32-51 mm pipe for in-line, offset or stand-off fixing
Integral clamp: Aluminium casting, stainless steel U-bolts and fasteners

For detailed specifications, visit <http://antenna.pctel.com>.

Antenna Electrical Specifications

Model	Frequency Band	Gain (Rel. 1/2 wave dipole)	Bandwidth	E-Plane Beamwidth (-3 dB)
WDTC70	70-83 MHz	Unity	15% typical	90° typical
WDTC75	72-85 MHz	Unity	15% typical	90° typical
WDTC80	75-88 MHz	Unity	15% typical	90° typical
WDTC130	116-138 MHz	Unity	15% typical	90° typical
WDTC150	136-160 MHz	Unity	15% typical	90° typical
WDTC160	145-175 MHz	Unity	15% typical	90° typical
WDTC260	240-279 MHz	Unity	15% typical	90° typical
WDTC410	370-440 MHz	Unity	15% typical	90° typical
WDTC440	400-480 MHz	Unity	15% typical	90° typical
WDTC480	430-530 MHz	Unity	15% typical	90° typical

Mechanical Specifications

Model	Antenna Length	Weight (Mass)	Rated Wind Velocity	Windloading (kg) @ 193 km/h
WDTC70	8.63 ft (2630 mm)	2.65 lbs (1.2 kg)	119.925 mph (193 km/h)	18.1 lbs (8.2 kg)
WDTC75	8.63 ft (2630 mm)	2.65 lbs (1.2 kg)	119.925 mph (193 km/h)	18.1 lbs (8.2 kg)
WDTC80	8.63 ft (2630 mm)	2.65 lbs (1.2 kg)	119.925 mph (193 km/h)	18.1 lbs (8.2 kg)
WDTC130	6.07 ft (1850 mm)	2.20 lbs (1.0 kg)	119.925 mph (193 km/h)	15.0 lbs (6.8 kg)
WDTC150	4.79 ft (1460 mm)	1.87 lbs (0.85 kg)	119.925 mph (193 km/h)	13.49 lbs (6.1 kg)
WDTC160	4.79 ft (1460 mm)	1.87 lbs (0.85 kg)	119.925 mph (193 km/h)	13.49 lbs (6.1 kg)
WDTC260	2.82 ft (860 mm)	1.54 lbs (0.7 kg)	119.925 mph (193 km/h)	6.83 lbs (3.1 kg)
WDTC410	2.82 ft (860 mm)	1.54 lbs (0.7 kg)	119.925 mph (193 km/h)	6.83 lbs (3.1 kg)
WDTC440	2.82 ft (860 mm)	1.54 lbs (0.7 kg)	119.925 mph (193 km/h)	6.83 lbs (3.1 kg)
WDTC480	4.79 ft (1460 mm)	1.54 lbs (0.7 kg)	119.925 mph (193 km/h)	6.83 lbs (3.1 kg)

2.4 GHz ISM All Terrain Sectorized Omnidirectional Antennas

These all terrain adjustable omnidirectional antennas allow sector adjustments of up to ± 15 degrees, permitting installers to contour their coverage area according to the specific geographic conditions of their territory. For applications with more specific coverage demands these antennas offer various azimuth (horizontal plane beamwidth) pattern options optimized to address differing coverage, cost control and tower space limitation challenges. As the subscriber base grows, they can accommodate increased throughput capacity without the need to replace the antenna. Models are available for vertical or horizontal polarization.

Features

- Increased system capacity
- Superior isolation
- Electrical and mechanical beamtilt adjustments
- Pattern selectivity
- Mounting flexibility
- Downtime reduction

MAXRAD

Technical Data

General Specifications: 2.4 GHz ISM sectorized omnidirectional antennas
Maximum Power: 50 watts**
Polarization: Vertical (MSO models) or horizontal (MSOH models)
Normal Impedance: 50 ohms
VSWR: < 1.5:1
Radome Material: ASA-ABS, UV resistant
Lightning Protection: DC grounded
Cable: 18" Pro-Flex™ Plus 195
Termination: N, female connector at power divider input (MSO24014NF and MSOH24014NF) N, male connector at power divider input (MSO24014NM and MSOH24014NM)
Mounting Method: Center pipe mount (1.25" OD pipe included) or direct tower leg mount
Pattern Shaping Kits: Standard omnidirectional (pattern #4). Power divider is included. Other options are available*** Consult the factory for details.

For detailed specifications, visit <http://antenna.pctel.com>.

** Power limitation of power divider 10 watts.

*** Optional patterns require use of one radio.



The MSO24014PTNF's mount design allows mast or tower leg mounting for greater flexibility when tower space availability is limited.



MSO24014PTNF

Antenna Electrical Specifications

Model	Frequency Range	Nominal Gain	Bandwidth @ 1.5:1 VSWR	Power Divider
MSO24014NF	2400-2500 MHz	14 dBi*	16°	3-way equal split
MSOH24014NF	2400-2500 MHz	14 dBi*	16°	3-way equal split
MSO24014NM	2400-2500 MHz	14 dBi*	16°	3-way equal split
MSOH24014NM	2400-2500 MHz	14 dBi*	16°	3-way equal split

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Temperature Range	Wind Survival
MSO24014NF	19.75" x 5" OD (501 L x 127 mm OD)	8 lbs (3.6 kg)	-42° C to +75° C	125 mph (200 km/hr)
MSOH24014NF	19.75" x 5" OD (501 L x 127 mm OD)	8 lbs (3.6 kg)	-42° C to +75° C	125 mph (200 km/hr)
MSO24014NM	19.75" x 5" OD (501 L x 127 mm OD)	8 lbs (3.6 kg)	-42° C to +75° C	125 mph (200 km/hr)
MSOH24014NM	19.75" x 5" OD (501 L x 127 mm OD)	8 lbs (3.6 kg)	-42° C to +75° C	125 mph (200 km/hr)

* Antenna gain specified when sectors are fed individually.

All Terrain Maximum Isolation Sectorized Antenna Array

The ISOMAX24014PTNM maximum isolation sectorized antenna array complements our popular MSO24014NF sectorized omni by providing providers the ability to use three (3) co-located radios per compact antenna, while retaining the flexibility to individually adjust each sector from 5° uptilt to 10° downtilt. The antenna provides typical port-to-port isolation of -68 dB. It is the ideal solution for wireless Internet service providers operating three (3) separate radios in high capacity urban locations where maximum isolation between radios is important to keep potential interference from reducing data throughput.

Features

- Increased system capacity. Individually fed sectors increase the number of users, achieve higher gain, and increased data throughput.
- Typical port-to-port isolation of -68 dB. Minimizes interference issues with adjacent antennas allowing greater data throughput.
- Mechanical beamtilt adjustments. The flexibility to adjust the antenna radiation pattern to the surrounding terrain allows installers to maximize pattern performance for optimal customer base coverage.
- Downtime reduction. Radio/antenna damage in single mast mount omnis result in 100% failure of the effected radio/antenna. The modular design of the ISOMAX24014PTNM minimizes downtime periods by maintaining links of the un-damaged, individually-fed sectors. This could increase system survivability by up to 66%.



The ISOMAX24014PTNM is the ideal solution for wireless Internet service providers operating three (3) separate co-located radios in high capacity applications.

MAXRAD

Antenna Electrical Specifications

Model	Frequency Range	Nominal Gain	Nominal Isolation	E-Plane Beamwidth	Single Sector Front-to-Back
ISOMAX24014PTNM	2400-2500 MHz	14 dBi per sector	- 68 dB	16° per sector	-33 dB

Mechanical Specifications

Model	Dimensions (per sector)	Weight (Mass)
ISOMAX24014PTNM	19.75" L x 4.7" W x 3" D (501 x 120 x 76 mm)	9 lbs (4 kg)

Temperature Range	Lateral Thrust at Rated Wind	Wind Survival
-40°C to +85°C	138 lbs	125 mph

Technical Data

General Specifications: 2.4 GHz ISM sectorized antenna array
Maximum Power: 50 watts
Polarization: Vertical
Normal Impedance: 50 ohms
VSWR: < 1.5:1
Radome Material: ASA-ABS, UV resistant
Lightning Protection: DC grounded
Mechanical Tilt (per sector): 5° uptilt to 10° downtilt
Cable: 18" Pro-Flex™ Plus 195
Termination: Three (3) N, male connectors
Mounting Method: Center pipe mount (includes 36" x 1.25" OD pipe) Other mounting options possible.

For detailed specifications, visit <http://antenna.pctel.com>.

MBS Series, UHF/VHF Aluminum Omnidirectional Antennas



MBS150

MAXRAD

The MBS VHF/UHF base station antennas feature 6061-T6 seamless aluminum construction and a no ground plane design for simplified mounting.

Features

- Base matched 1/2 wave vertical antenna requiring no ground plane or radials for effective operation
- Easily adjusted to exact operating frequency
- All stainless steel hardware
- 6061-T6 seamless aluminum

Antenna Electrical Specifications

Model	Frequency Range	Factory Tuned Frequency	Gain	Bandwidth @ 1.5:1 VSWR	Vertical Beamwidth @ 1/2 Power
MBS150(N)	144-174 MHz	Antennas are field tunable within the specified frequency range.	Unity	6 MHz	70°
MBS250(N)	200-250 MHz		Unity	10 MHz	80°
MBS406(N)	406-430 MHz		Unity	20 MHz	52°
MBS430(N)	430-450 MHz		Unity	20 MHz	52°
MBS440(N)	440-460 MHz		Unity	20 MHz	52°
MBS450(N)	450-470 MHz		Unity	20 MHz	52°
MBS470(N)	470-490 MHz		Unity	20 MHz	52°

Technical Data

Maximum Power: 250 watts
Normal Impedance: 50 ohms
Radiator Material: 6061-T6 aluminum tubing
Lightning Protection: DC grounded
Wind Survival: 90 mph
Termination: SO-239 standard; N female connector is optional
Maximum Mounting Pipe Diameter: VHF: 1-1/4" UHF: 1"
Mounting Method: Built-in clamp (included)

Mechanical Specifications

Model	Antenna Height	Weight (Mass)	Lateral Thrust at Rated Wind	Bending Moment at Rated Wind	Equivalent Flat Plate Area
MBS150(N)	43"	1.1 lbs	6.7 lbs	12 ft-lbs	.17 ft ²
MBS250(N)	39"	0.9 lbs	4.5 lbs	6 ft-lbs	.13 ft ²
MBS406(N)	15"	.04 lbs	2.0 lbs	1.2 ft-lbs	.05 ft ²
MBS430(N)	15"	.04 lbs	2.0 lbs	1.2 ft-lbs	.05 ft ²
MBS440(N)	15"	.04 lbs	2.0 lbs	1.2 ft-lbs	.05 ft ²
MBS450(N)	15"	.04 lbs	2.0 lbs	1.2 ft-lbs	.05 ft ²
MBS470(N)	15"	.04 lbs	2.0 lbs	1.2 ft-lbs	.05 ft ²

For detailed specifications, visit <http://antenna.pctel.com>.

Suffix N indicates N connector option. Please add \$3.00 for N connector.

MXB Series, UHF/VHF Aluminum Omnidirectional Antennas

The MBX VHF/UHF antennas offer an economical choice for omnidirectional high gain applications. The 6061-T6 aluminum tubing and stainless steel hardware provides years of trouble free service.

Features

- Base matched vertical collinear antenna with phasing stub coupling for efficient operation without radials
- Adjustment to exact operation frequency with stainless steel full-lock clamps

Antenna Electrical Specifications

Model	Frequency Range	Factory Tuned Frequency	Gain	Bandwidth @ 1.5:1 VSWR	Vertical Beamwidth @ 1/2 Power
MBX150(N)	144-174 MHz	Antennas are field tunable within the specified frequency range.	3 dB	4 MHz	27°
MBX250(N)	200-250 MHz		3 dB	10 MHz	28°
MBX406(N)	406-430 MHz		3 dB	14 MHz	30°
MBX430(N)	430-450 MHz		3 dB	14 MHz	30°
MBX440(N)	440-460 MHz		3 dB	14 MHz	30°
MBX450(N)	450-470 MHz		3 dB	14 MHz	30°
MBX470(N)	470-490 MHz		3 dB	14 MHz	30°
MBX490(N)	490-512 MHz		3 dB	14 MHz	30°

Mechanical Specifications

Model	Height at Lowest Frequency	Weight (Mass)	Lateral Thrust at Rated Wind	Bending Moment at Rated Wind	Equivalent Flat Plate Area
MBX150(N)	110"	1.7 lbs	12.4 lbs	56.7 ft-lbs	.32 sq ft
MBX250(N)	87"	1.4 lbs	7.2 lbs	20.1 ft-lbs	.20 sq ft
MBX406(N)	30"	0.6 lbs	3.2 lbs	4 ft-lbs	.09 sq ft
MBX430(N)	30"	0.6 lbs	3.2 lbs	4 ft-lbs	.09 sq ft
MBX440(N)	30"	0.6 lbs	3.2 lbs	4 ft-lbs	.09 sq ft
MBX450(N)	30"	0.6 lbs	3.2 lbs	4 ft-lbs	.09 sq ft
MBX470(N)	30"	0.6 lbs	3.2 lbs	4 ft-lbs	.09 sq ft
MBX490(N)	30"	0.6 lbs	3.2 lbs	4 ft-lbs	.09 sq ft



MBX450

MAXRAD

Technical Data

Maximum Power: 250 watts
Normal Impedance: 50 ohms
Radiator Material: 6061-T6 aluminum tubing
Lightning Protection: DC grounded
Wind Survival: 90 mph
Termination: SO-239 standard; N female connector is optional
Maximum Mounting Pipe Diameter: VHF: 1-1/4" UHF: 1"
Mounting Method: Built-in clamp (included)

For detailed specifications, visit <http://antenna.pctel.com>

Suffix N indicates N connector option. Please add \$3.00 for N connector.



MBS Adapter*

MAXRAD

MBS Series Base Station Adapters

The MBS VHF/UHF/800 MHz series is ideal for temporary installations. The MBS adapter allows a mobile VHF, UHF or 800 MHz antenna to be used as a base station. By providing radials, the antenna can be used in areas where a ground plane is not available.

Features

- Will accept any antenna that utilizes 1-1/8"-18 thread mounts
- Mounts on 1" - 1.75" outside diameter masts
- Converts any 136-940 MHz mobile antenna into a base station

Electrical Specifications

Model	Frequency Range	Factory Tuned Frequency	Gain	Bandwidth @ 1.5:1 VSWR	Insertion Loss at Highest Frequency
MBS	132-512 MHz	Dependent upon the antenna			.1 dB
MBSN	132-512 MHz	Dependent upon the antenna			.1 dB
MBSUHF	406-512 MHz	Dependent upon the antenna			.1 dB
MBS800	806-940 MHz	Dependent upon the antenna			.2 dB

Technical Data

Maximum Power:
200 watts
100 watts (MBS800 only)

Construction Material:
Stainless steel

Termination:
MBS: SO-239
MBSN: N female
MBS UHF: N female
MBS800: N female

For detailed specifications, visit <http://antenna.pctel.com>.

*Antenna is not included.

Base Station Mounts

Model	Description	Application	Qty per Assembly
MBSWM	Wall mount	For wall mounting antennas of up to 2-1/4" in diameter.	1
MMK1	3-groove backing plate	For mounting a 1-5/16" outer diameter antenna to a 1-1/4" maximum outer diameter mast.	1
MMK1924	Stainless steel "L" bracket mount for wall or pipe mount	For mounting an omnidirectional antenna to a 2" maximum diameter mast. Bracket is 6" long with a 5/8" diameter hole for mounting the antenna.	1
MMK2	1-1/2" stainless steel "L" bracket	For mounting an antenna with a base connector to a 2" maximum diameter mast. Bracket is 9" long with a 5/8" diameter hole for mounting the antenna.	1
MMK3	Base station mount bracket	For mounting a 1-5/16" outer diameter antenna to a 1-1/4" maximum outer diameter mast.	2
MMK4	Heavy duty fiberglass base station mount	For mounting an antenna with 2-2/2" maximum diameter onto a 2-1/2" maximum outer diameter mast.	2
MMK5	Heavy duty mast to tower mount	For mounting a 3-1/4" maximum diameter antenna onto a 3-1/4" maximum diameter mast.	2
MMK6	MFB base station mount bracket	For mounting a 1-5/16" outer diameter antenna base without a pigtail to a maximum 2" diameter mast.	1
MMK8	Aluminum MFB mount bracket	For mounting a 1-1/4" diameter antenna to a 2-1/2" maximum diameter mast.	1
MMK9	Aluminum MFB mount bracket	For mounting a 1-5/16" diameter antenna to a 2-1/2" maximum diameter mast.	1
MPAB3	Adjustable mounting bracket for MP panel antennas	Adjustable mounting bracket, interface plate and hardware for 6 dBd MP directional panel antennas.	1
MPAB4	Adjustable mounting bracket for MP panel antennas	Adjustable mounting bracket for mounting an 8 dB directional panel to pipes of up to 2.3" OD.	1
MPAB7	Heavy duty outdoor adjustable mount with +/-35° uptilt/downtilt adjustment	Adjustable outdoor mounting bracket for MP XF 800/900 MHz directional panel antennas. One 6" and one 8" bracket.	2
MPAB8	Heavy duty outdoor adjustable mount with 17° uptilt/downtilt adjustment	Adjustable outdoor mounting bracket for MPXF 800/900 MHz directional panel antennas. Two 6" brackets.	2
MPAB11	Short adjustable indoor mount	Short adjustable indoor mounting bracket for MPXF 800/900 MHz directional panel antennas.	1
MPAB12	Long adjustable corner mount	Long adjustable indoor corner mount for MPXF 800/900 MHz directional panel antennas.	1
MYK1	Mount kit for 7/8" boom yagis	For mounting 7/8" diameter boom yagis to a 1-5/8" maximum diameter mast.	1
MYK2	Mount kit for 1-1/4" boom yagis	For mounting 1-1/4" diameter boom yagis to a 2" maximum diameter mast.	1
MYK3	Heavy duty mount for 7/8" boom yagis	For mounting 7/8" diameter boom yagis to a 2" maximum diameter mast.	1
MYK4	Mounting kit for bottom dipole fiberglass base station antennas	For mounting to a 2" maximum diameter mast.	1
MYK6	Mount bracket for MMS8	For mounting to a 2" maximum diameter mast.	2
MYK7	Mount bracket for MMS18	For mounting to a 2" maximum diameter mast.	3
MYK9	Heavy duty aluminum plate mounting bracket	For mounting to a 2" maximum diameter mast.	1
MYK10	Heavy duty cast yagi bracket	For mounting a 7/8" OD yagi to a 2-1/2" maximum OD mast. Adjustable for vertical or horizontal polarization.	1
MYK11	Heavy duty mounting kit for 7/8" boom yagis	For mounting a 7/8" diameter yagis with pre-drilled holes to 1-5/8" maximum diameter masts.	1
MYK14	Sand cast mounting bracket for 3/4"-7/8" boom yagis	For mounting antennas with boom diameters of 3/4" to 7/8" to 3" maximum diameter masts.	1
MYK16	Mounting bracket for 1-1/4" diameter boom yagis	For mounting to masts measuring from 1-5/8" to 2" in diameter.	1
MYK17	Mounting bracket for 0.75" diameter boom yagis	For mounting to masts measuring 1-5/8" in diameter.	1

MMK Mounts for Base Station Antennas



MMK1



MMK2



MMK3



MMK4



MMK5



MMK6



MMK8



MMK9

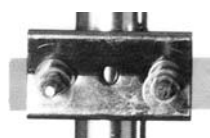


MMK1924



MBSWM

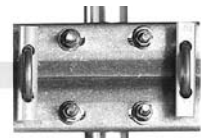
MYK Mounts for Yagi Antennas and MPAB Mounts for Panel Antennas



MYK1



MYK2 (front)



MYK3



MYK4 (front)



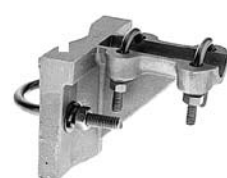
MYK6



MYK7



MYK9



MYK10



MYK11



MYK14



MYK16



MYK17



MPAB3



MPAB4



MPAB8



MPAB12

Dipole Stacking Harnesses

Model	Description
MSK721DA2(N)*	72 MHz stacking harness, 2 bay dipole
MSK150DA2(N)*	150 MHz stacking harness, 2 bay dipole
MSK150DA4(N)*	150 MHz stacking harness, 4 bay dipole
MSK220DA2(N)*	220 MHz stacking harness, 2 bay dipole
MSK220DA4(N)*	220 MHz stacking harness, 4 bay dipole
MSK360DA2(N)*	360 MHz stacking harness, 2 bay dipole
MSK360DA4(N)*	360 MHz stacking harness, 4 bay dipole
MSK450DA2(N)*	450 MHz stacking harness, 2 bay dipole
MSK450DA4(N)*	450 MHz stacking harness, 4 bay dipole



MSK450

Yagi Stacking Harnesses

Model	Description
MSK50	50 MHz stacking harness
MSK72(N)*	68 MHz stacking harness
MSK150(N)*	VHF stacking harness
MSK200(N)*	200 MHz stacking harness
MSK350(N)*	350 MHz stacking harness
MSK450(N)*	UHF stacking harness
MSK800	800 MHz stacking harness
MSK900	900 MHz stacking harness
MSK450DA4(N)*	450 MHz stacking harness, 4 bay dipole



MSK800

Masts/Stacking Frames

Model	Description
MMS4	4' mast for UHF dipole
MMS8	8' mast for VHF dipole
MMS8HD	8' mast for VHF dipole HD
MMS18	18' mast for UHF dipole
MSF1502	150 MHz stacking frame for 2 yagis, chrome
MSF1504	150 MHz stacking frame for 4 yagis, chrome
MSF4502	450 MHz stacking frame for 2 yagis, chrome
MSF4504	450 MHz stacking frame for 4 yagis, chrome
MSK450DA4(N)*	450 MHz stacking harness, 4 bay dipole



MSF4504

* Must specify frequency.



MBS800PIN



MBSNUT



MH150



MGB



MMA1

Replacement Parts

Model	Frequency Range
800ED	Cover for driven element
M239A	SO-239 to SO-239 short bulk adapter. Package of 5.
MBRPB	Parts bag for MBR series base station antennas
MBS800PIN	Contact pin for MBS800 kit. Fits into N female connector.
MBS800RAD	Radial replacement set for MBS800. Includes 4 radial rods with balls attached, 4 set screws, and an allen wrench.
MBSNUT	Brass mount nut for MBS kit. Accepts .062" diameter radials (8-32 set screws not included.)
MBSPIN	Contact pin for MBS kit. Fits into UG363/U connector.
MBSRAD	Radial replacement set for VHF and UHF MBS antennas
MBSUG30	MBS800 connector
MDB150	150 MHz dipole replacement bay
MFSMAMMCX	SMA jack (female) to MMCX plug adapter, straight
MGB	DC grounding block used for grounding coax to ground (earth)
MH150	Hairpin for MBX150
MH250	Hairpin for MBX250
MH450	Hairpin for MBX450
MMA1	Adapts internal thread marine mount to 3/4" M style mount. N female connector.
MNMNM	N male/male splice adapter
MP150	Plastic coupler for MBX150
MP450	Plastic coupler for MBX450
MVS1	Sealant wrap; 1" x 3"; package of 5
MYAN	N female connector for yagi/dipole
MYAPB3	Parts bag for 3 element VHF yagi. Includes element mounting hardware and gamma match.
MYAPB5	Parts bag for 5 element VHF yagi. Includes element mounting hardware and gamma match.
MYAPB6	Parts bag for 6 element VHF yagi. Includes element mounting hardware and gamma match
MYASO239	SO-239 female connector
MYE140	45 inch, 140 MHz yagi replacement element
MYE150	39 inch yagi or dipole replacement element
UHFED	Cover for driven element (UHF)



CELLULAR BASE STATION ANTENNAS

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Model Number Nomenclature

PCTEL's cellular infrastructure (base station) antennas use the following model to generate product codes. This structure outlines the electrical and mechanical specifications of each antenna.

XX₁	XX₂	XX₃	XX₄	XX₅	XX₆
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1. Product Name:
 - iD: iVET™ Dual band
 - iF - iVET™ Tri-Sector, three antennas encased in one cylindrical radome
 - iQ - iVET™ Quadport, side by side, encased in the same radome
 - iS - iVET™ Single band
 - iT - iVET™ Triple band
 - iZ - iVET™ Tri-Sector with variable azimuth encased in one cylindrical radome
2. Beamwidth
 - 33 = 33°
 - 45 = 45°
 - 65 = 65°
 - 90 = 90°
3. iVET™ beam tilt
 - A = 0° - 8°
 - B = 2° - 10°
 - C = 4° - 12°
 - E = 2° - 8°
 - H = 0° - 6°
 - M = 0° - 10° (GSM) & 2° - 10° (wideband)
 - T = 0° - 10°
4. Frequency band
 - C= Cellular US (824 - 900 MHz)
 - D = GSM (1710 -1180 MHz)
 - G = GSM (880 - 960 MHz)
 - M = Cellular Wideband (824 -960 MHz)
 - P = PCS (1850 -1990 MHz)
 - U = UMTS (1920 - 2170 MHz)
 - W = Wideband (1710 - 2170 MHz)
5. Size of antenna in meters
 - 13 = 1.3
 - 15 = 1.5
 - 17 = 1.7
 - 20 = 2.0
 - 21 = 2.1
 - 26 = 2.6
6. P = Mast Head Amplifier (MHA) compartment (optional)

MAXRAD



Dual band 880-960 MHz & 1710-2170 MHz

All MAXRAD cellular infrastructure antennas meet the requirements of next generation cellular networks and feature the most advanced RET system available today. These antennas offer integrated Variable Electric Tilt (iVET™) technology, iVET™ guarantees the highest level of tilt accuracy, reliability and ease of deployment without any impact on zoning due to increased length.

Features

- AISG and Ericsson protocol compliant
- Two methods of remote control
 - RS2323 - AISG interface for control via laptop
 - Handheld programmer
- Convenience and efficiency of RET functionality without any aesthetic or size penalty
- Superior pattern control

MAXRAD

Technical Data

Maximum Power: 200 watts
Polarization: Dual linear +/- 45° slant
Nominal Impedance: 50 ohms
Radome Material: Polycarbonate
Reflector Material: Aluminum
Return Loss: < 16 dB (880-960 MHz) < 15 dB (1710-2170 MHz)
Electrical Tilt Ranges: 0° - 10° (880-960 MHz) 2° - 10° (1710-2170 MHz)
Isolation Between Ports: > 30 dB
Front-to-Back Ratio: > 25 dB
Intermodulation IM3 (2 x 20W carrier): > 150 dBc
Rated Wind Velocity: 100 mph (161 km/h)
Horizontal Thrust @ Rated Wind: Front 198 lbf (878N); Side 190 (844N)
Materials for Radiating Elements: Circuit board
Terminations: Antenna: 4 x 7/16 DIN socket Control: AISG compliant

Antenna Electrical Specifications

Model	Frequency Range	-3 dB Horizontal Beamwidth	-3 dB Vertical Beamwidth	Upper Side Lobe Suppression*	Gain*
iD65MG20	880-960 MHz	62°	10°	> 18 dB	16.0 dBi
	1710 - 1880 MHz	66°	7°	> 17 dB	17.2 dBi
	1850-1990 MHz	64°	6.5°	> 17 dB	17.5 dBi
	1920-2170 MHz	63°	6°	> 18 dB	17.7 dBi

Mechanical Specifications

Model	Dimensions	Weight (Mass)
iD65MG20	78.7" x 12" x 6.8" (2000 x 306 x 174 mm)	38.0 lb (17 kg)

Mounting Options

Diameter of Pipe	Mount
1.5" - 4.5" (38-115 mm)	9641345-01 Fixed (0°) installation
1.5" - 4.5" (38-115 mm)	9641345-02 Mechanical (0°-15°) downtilt installation

For detailed specifications, visit <http://antenna.pctel.com>.

*At maximum tilt angle, gain may be slightly reduced.

3 x 65° UMTS (1920 - 2170 MHz)

The iF Series tri-sector platform provides a unique concealed solution incorporating three MAXRAD iS Series 65° antennas under one radome. MAXRAD's integrated Variable Electrical Tilt (iVET™) technology allow each sector's beam tilt to be individually controlled from the base of the tower or remote from the site.

Features

- AISG and Ericsson protocol compliant
- Two methods of remote control
 - RS2323 - AISG interface for control via laptop
 - Handheld programmer
- Optional MHA section
- Superior pattern control



Antenna Electrical Specifications

Model	Frequency Range	-3 dB Horizontal Beamwidth	-3 dB Vertical Beamwidth	Gain*
iF65BU13	1920-2170 MHz	65°	7°	17.7 dBi
iF65BU15	1920-2170 MHz	65°	6°	18.4 dBi

Mechanical Specifications

Model	Dimensions**	Weight (Mass)**	Horizontal Thrust @ Rated Wind**
iF65BU13	55.6" x 8.7" (1411 x 220 mm) / 114.7" x 8.7" (2911 x 220 mm)	68.5 lb (31 kg) / 101.5 lb (46 kg)	107 lbf (476N) / 220 lbf (981N)
iF65BU15	66.7" x 8.7" (1694.2 x 220 mm) / 125.7" x 8.7" (3193 x 220 mm)	77.2 lb (35 kg) / 110.3 lb (50 kg)	128 lbf (571N) / 242 lbf (1077N)

MAXRAD

Technical Data

Maximum Power: 200 watts
Polarization: Dual linear +/-45° slant
Nominal Impedance: 50 ohms
Radome Material: Acrylic capped ABS, color RAL 7035
Reflector Material: Aluminum
Return Loss: < 15 dB
Electrical Tilt Ranges: 2° - 10°
Isolation Between Ports: > 30 dB
Front-to-Back Ratio: > 25 dB
Intermodulation IM3 (2 x 20W carrier): > 150 dB
Upper Side Lobe Suppression: >18 dB
Rated Wind Velocity: 100 mph (161 km/h)
Materials for Radiating Elements: Circuit board
Terminations: Antenna: 4 x 7/16 DIN socket Control: AISG compliant
Mounting Flange: 6 x M10 @ 60° on a 200 mm PCD

*At maximum tilt angle, gain may be slightly reduced.

** Without option MHA section / With optional MHA section

For detailed specifications, visit <http://antenna.pctel.com>.



Side-by-Side (1710-2170 MHz)

All MAXRAD cellular infrastructure antennas meet the requirements of next generation cellular networks and feature the most advanced RET system available today. These antennas offer integrated Variable Electric Tilt (iVET™) technology, iVET™ guarantees the highest level of tilt accuracy, reliability and ease of deployment without any impact on zoning due to increased length.

Features

- Side by side, quadport, wideband antenna
- AISG and Ericsson protocol compliant
- Two methods of remote control
 - RS2323 - AISG interface for control via laptop
 - Handheld programmer
- Convenience and efficiency of RET functionality without any aesthetic or size penalty
- Superior pattern control

MAXRAD

Technical Data

Maximum Power: 200 watts
Polarization: Dual linear +/-45° slant
Nominal Impedance: 50 ohms
Radome Material: Polycarbonate
Reflector Material: Aluminum
Return Loss: < 15 dB
Electrical Tilt Ranges: 2° - 10°
Isolation Between Ports: > 30 dB
Front-to-Back Ratio: > 25 dB
Intermodulation IM3 (2 x 20W carrier): > 150 dBc
Rated Wind Velocity: 100 mph (161 km/h)
Horizontal Thrust @ Rated Wind: Front 140 lbf (621N); Side 71 lbf (318N)
Materials for Radiating Elements: Circuit board
Terminations: Antenna: 4 x 7/16 DIN socket Control: AISG compliant

Electrical Specifications

Model	Frequency Range	-3 dB Horizontal Beamwidth	-3 dB Vertical Beamwidth	Upper Side Lobe Suppression*	Gain*
iQ65BW13	1710-1880 MHz	66°	7°	> 17 dB	17.2 dBi
	1850-1990 MHz	64°	6.5°	> 17 dB	17.5 dBi
	1920-2170 MHz	63°	6°	> 18 dB	17.7 dBi

Mechanical Specifications

Model	Dimensions	Weight (Mass)
iQ65BW13	56.7" x 12.6" x 6.0" (1440 mm x 320 mm x 150 mm)	15.5 lb (7.0 kg)

Mounting Options

Diameter of Pipe	Mount
1.5" - 4.5" (38-115 mm)	9641345-01 Fixed (0°) installation
1.5" - 4.5" (38-115 mm)	9641345-02 Mechanical (0° - 15°) downtilt installation

For detailed specifications, visit <http://antenna.pctel.com>.

*At maximum tilt angle, gain may be slightly reduced.

PCS (1850-1990 MHz)

All MAXRAD cellular infrastructure antennas meet the requirements of next generation cellular networks and feature the most advanced RET system available today. These antennas offer integrated Variable Electric Tilt (iVET™) technology, iVET™ guarantees the highest level of tilt accuracy, reliability and ease of deployment without any impact on zoning due to increased length.

Features

- AISG and Ericsson protocol compliant
- Two methods of remote control
 - RS2323 - AISG interface for control via laptop
 - Handheld programmer
- Convenience and efficiency of RET functionality without any aesthetic or size penalty
- Superior pattern control


MAXRAD

Antenna Electrical Specifications

Model	Frequency Range	-3 dB Horizontal Beamwidth	-3 dB Vertical Beamwidth	Gain*
iS65BP13	1850-1990 MHz	65°	7°	17.5 dBi
iS65BP15	1850-1990 MHz	65°	6°	18.2 dBi
iS65EP20	1850-1990 MHz	65°	4°	19.2 dBi

Mechanical Specifications

Model	Horizontal Thrust @ Rated Wind	Dimensions	Weight (Mass)
iS65BP13	Front 77 lbf (341N); Side 44 lbf (196N)	52.4" x 7.5" x 3.9" (1330 mm x 190 mm x 100 mm)	15.5 lb (7 kg)
iS65BP15	Front 91 lbf (406N); Side 52 lbf (233N)	62.4" x 7.5" x 3.9" (1585 mm x 190 mm x 100 mm)	17.6 lb (8 kg)
iS65EP20	Front 112 lbf (500N); Side 65 lbf (287N)	76.7" x 7.5" x 3.9" (1950 mm x 190 mm x 100 mm)	20.0 lb (9 kg)

Mounting Options

Diameter of Pipe	Mount
1.5" - 4.5" (38-115 mm)	9641345-01 Fixed (0°) installation
1.5" - 4.5" (38-115 mm)	9641345-02 Mechanical (0°-15°) downtilt installation

Technical Data

Maximum Power: 200 watts
Polarization: Dual linear +/-45° slant
Nominal Impedance: 50 ohms
Radome Material: Polycarbonate
Reflector Material: Aluminum
Return Loss: < 15 dB
Electrical Tilt Ranges: 2° - 10° (2° - 8° for iS65EP20)
Isolation Between Ports: > 30 dB
Front-to-Back Ratio: > 25 dB
Intermodulation IM3 (2 x 20W carrier): > 150 dBc
Upper Side Lobe Suppression: >18 dB
Rated Wind Velocity: 100 mph (161 km/h)
Materials for Radiating Elements: Circuit board
Terminations: Antenna: 2 x 7/16 DIN socket Control: AISG compliant

*At maximum tilt angle, gain may be slightly reduced.

For detailed specifications, visit <http://antenna.pctel.com>.


MAXRAD

UMTS (1920-2170 MHz)

All MAXRAD cellular infrastructure antennas meet the requirements of next generation cellular networks and feature the most advanced RET system available today. These antennas offer integrated Variable Electric Tilt (iVET™) technology, iVET™ guarantees the highest level of tilt accuracy, reliability and ease of deployment without any impact on zoning due to increased length.

Features

- AISG and Ericsson protocol compliant
- Two methods of remote control
 - RS2323 - AISG interface for control via laptop
 - Handheld programmer
- Convenience and efficiency of RET functionality without any aesthetic or size penalty
- Superior pattern control

Technical Data

Maximum Power: 200 watts
Polarization: Dual linear +/-45° slant
Nominal Impedance: 50 ohms
Radome Material: Polycarbonate
Reflector Material: Aluminum
Return Loss: < 15 dB
Electrical Tilt Ranges: 2° - 10° (2° - 8° for iS65EU17 and iS65EU20)
Isolation Between Ports: > 30 dB
Front-to-Back Ratio: > 25 dB
Intermodulation IM3 (2 x 20W carrier): > 150 dBc
Upper Side Lobe Suppression: >18 dB (> 15 dB for iS65EU17 and iS65EU20)
Rated Wind Velocity: 100 mph (161 km/h)
Materials for Radiating Elements: Circuit board
Terminations: Antenna: 2 x 7/16 DIN socket Control: AISG compliant

Antenna Electrical Specifications

Model	Frequency Range	-3 dB Horizontal Beamwidth	-3 dB Vertical Beamwidth	Gain*
iS65BU13	1920-2170 MHz	65°	7°	17.7 dBi
iS65BU15	1920-2170 MHz	65°	6°	18.4 dBi
iS65BU15P	1920-2170 MHz	65°	6°	18.4 dBi
iS65EU17	1920-2170 MHz	65°	5°	18.5 dBi
iS65EU20	1920-2170 MHz	65°	4°	19.5 dBi

Mechanical Specifications

Model	Horizontal Thrust @ Rated Wind	Dimensions	Weight (Mass)
iS65BU13	Front 68 lbf (305N); Side 31 lbf (137N)	52.4" x 6.7" x 2.8" (1330 mm x 170 mm x 70 mm)	15.5 lb (7 kg)
iS65BU15	Front 81 lbf (363N); Side 36 lbf (163N)	62.4" x 6.7" x 2.8" (1528 mm x 170 mm x 70 mm)	17.6 lb (8 kg)
iS65BU15P	Front 120 lbf (538N); Side 69 lbf (309N)	82.7" x 7.5" x 3.9" (2100 mm x 190 mm x 100 mm)	19.8 lb (9 kg)
iS65EU17	Front 89 lbf (394N); Side 40 lbf (177N)	67.7" x 6.7" x 2.8" (1720 mm x 170 mm x 70 mm)	17.6 lb (8 kg)
iS65EU20	Front 100 lbf (447N); Side 45 lbf (201N)	76.7" x 6.7" x 2.8" (1950 mm x 170 mm x 70 mm)	20 lb (9 kg)

Mounting Options

Diameter of Pipe	Mount
1.5" - 4.5" (38-115 mm)	9641345-01 Fixed (0°) installation
1.5" - 4.5" (38-115 mm)	9641345-02 Mechanical (0°-15°) downtilt installation

For detailed specifications, visit <http://antenna.pctel.com>.

*At maximum tilt angle, gain may be slightly reduced.

Wideband (1710-2170 MHz)

All MAXRAD cellular infrastructure antennas meet the requirements of next generation cellular networks and feature the most advanced RET system available today. These antennas offer integrated Variable Electric Tilt (iVET™) technology, iVET™ guarantees the highest level of tilt accuracy, reliability and ease of deployment without any impact on zoning due to increased length.

Features

- AISG and Ericsson protocol compliant
- Two methods of remote control
 - RS2323 - AISG interface for control via laptop
 - Handheld programmer
- Convenience and efficiency of RET functionality without any aesthetic or size penalty
- Superior pattern control



MAXRAD

Antenna Electrical Specifications

Model	Frequency Range	-3 dB Horizontal Beamwidth	-3 dB Vertical Beamwidth	Upper Side Lobe Suppression*	Gain*
iS65EW20	1710-1880 MHz	66°	4.4°	>15 dB	18.7 dBi
iS65EW20	1850-1990 MHz	64°	4.2°	>15 dB	19.0 dBi
iS65EW20	1920-2170 MHz	63°	4.0°	>15 dB	19.2 dBi
iS65BW15	1710-1880 MHz	66°	6.2°	> 17 dB	17.7 dBi
iS65BW15	1850-1990 MHz	64°	5.8°	> 17 dB	18.0 dBi
iS65BW15	1920-2170 MHz	63°	5.5°	> 18 dB	18.2 dBi
iS65BW13	1710-1880 MHz	66°	7°	> 17 dB	17.2 dBi
iS65BW13	1850-1990 MHz	64°	6.5°	> 17 dB	17.5 dBi
iS65BW13	1920-2170 MHz	63°	6°	> 18 dB	17.7 dBi
iS65AW13	1710-1880 MHz	66°	7°	> 17 dB	17.2 dBi
iS65AW13	1850-1990 MHz	64°	6.5°	> 17 dB	17.5 dBi
iS65AW13	1920-2170 MHz	63°	6°	> 18 dB	17.7 dBi
iS33EW17	1710-1880 MHz	36°	6.0°	>15 dB	20.0 dBi
iS33EW17	1850-1990 MHz	35°	5.6°	>15 dB	20.5 dBi
iS33EW17	1920-2170 MHz	33°	5.4°	>16 dB	21.0 dBi

Technical Data

Maximum Power: 200 watts
Polarization: Dual linear +/-45° slant
Nominal Impedance: 50 ohms
Radome Material: Polycarbonate
Reflector Material: Aluminum
Return Loss: < 15 dB
Electrical Tilt Ranges: 0°-8° for iS65AW13 2°-10° for iS65BW13, iS65BW15 2°-8° for iS65EW20, iS33EW17
Isolation Between Ports: > 30 dB
Front-to-Back Ratio: > 25 dB
Intermodulation IM3 (2 x 20W carrier): > 150 dBc
Rated Wind Velocity: 100 mph (161 km/h)
Materials for Radiating Elements: Circuit board
Terminations: Antenna: 2 x 7/16 DIN socket Control: AISG compliant

For detailed specifications, visit <http://antenna.pctel.com>.

*At maximum tilt angle, gain may be slightly reduced.

Mechanical Specifications

Model	Horizontal Thrust @ Rated Wind	Dimensions	Weight (Mass)
iS65EW20	Front 118 lbf (523N); Side 67 lbf (300N)	80.3" x 7.5" x 3.9" (2040 x 190 x 100 mm)	21.0 lb (9.5 kg)
iS65BW15	Front 89 lbf (395N); Side 51 lbf (227N)	60.7" x 7.5" x 3.9" (1540 x 190 x 100 mm)	17.6 lb (8 kg)
iS65BW13	Front 77 lbf (314N); Side 44 lbf (196N)	52.4" x 7.5" x 3.9" (1330 x 190 x 100 mm)	15.5 lb (7 kg)
iS65AW13	Front 77 lbf (314N); Side 44 lbf (196N)	52.4" x 7.5" x 3.9" (1330 x 190 x 100 mm)	15.5 lb (7 kg)
iS33EW17	Front 146 lbf (650N); Side 85 lbf (380N)	67.8" x 11.0" x 5.9" (1720 x 280 x 150 mm)	26.5 lb (12 kg)

Mounting Options

Diameter of Pipe	Mount
1.5" - 4.5" (38-115 mm)	9641345-01 Fixed (0°) installation
1.5" - 4.5" (38-115 mm)	9641345-02 Mechanical (0°-15°) downtilt installation

PCS (1850-1990 MHz)

The iZ Series Tri-Sector platform provides a unique concealed solution incorporating three MAXRAD iS Series 65° antennas under one radome. MAXRAD's integrated Variable Electrical Tilt (iVET™) and independent Variable Azimuth (iVAZ) technology allow each sector's beamtilt and azimuth pointing to be individually controlled from the base of the tower or remote from the site.

Features

- AISG and Ericsson protocol compliant
- Two methods of remote control
 - RS2323 - AISG interface for control via laptop
 - Handheld programmer
- Optional MHA section
- Superior pattern control

Antenna Electrical Specifications

Model	Frequency Range	-3 dB Horizontal Beamwidth	-3 dB Vertical Beamwidth	Upper Side Lobe Suppression*	Gain*
iZ65BP13	1850-1990 MHz	65°	7°	> 18 dB	17.5 dBi
iZ65BP15	1850-1990 MHz	65°	6°	> 18 dB	18.2 dBi
iZ65EP20	1850-1990 MHz	65°	4°	> 15 dB	19.2 dBi

Mechanical Specifications

Model	Horizontal Thrust @ Rated Wind	Dimensions (L x OD)	Weight (Mass)
iZ65BP13 w/o optional MHA section	183 lb (817N)	69.1" x 15.0" (1754 mm x 380 mm)	130 lb (59 kg)
iZ65BP13 P with optional MHA section	266 lb (1190N)	100.5" x 15.0" (2554 mm x 380 mm)	165 lb (75 kg)
iZ65BP15 w/o optional MHA section	209 lb (936N)	79.2" x 15.0" (2010 mm x 380 mm)	141.5 lb (64.2 kg)
iZ65BP15P with optional MHA section	293 lb (1309N)	110.7" x 15.0" (2810 mm x 380 mm)	172.4 lb (78.2 kg)
iZ65EP20 w/o optional MHA section	249 lb (1106N)	93.5" x 15.0" (2374 mm x 380 mm)	167.5 lb (76 kg)
iZ65EP20P with optional MHA section	332 lb (1479N)	125.0" x 15.0" (3174 mm x 380 mm)	189.6 lb (86 kg)

*At maximum tilt angle, gain may be slightly reduced.



MAXRAD

Technical Data

Maximum Power: 200 watts
Polarization: Dual linear +/-45° slant
Nominal Impedance: 50 ohms
Radome Material: Acrylic capped ABS, color RAL 7035
Reflector Material: Aluminum
Return Loss: < 15 dB
Electrical Tilt Ranges: 2°-8° for iZ65EP20 2°-10° for all other models
Isolation Between Ports: > 30 dB
Front-to-Back Ratio: > 25 dB
Intermodulation IM3 (2 x 20W carrier): > 150 dBc
Rated Wind Velocity: 100 mph (161 km/h)
Materials for Radiating Elements: Circuit board
Terminations: Antenna: 6 x 7/16 DIN socket Control: AISG compliant
Mounting Flange: 6 x M16 @ 60° on a 12" (304.8 mm) PCD

For detailed specifications, visit <http://antenna.pctel.com>.


MAXRAD

UMTS (1920-2170 MHz)

The iZ Series Tri-Sector platform provides a unique concealed solution incorporating three MAXRAD iS Series 65° antennas under one radome. MAXRAD's integrated Variable Electrical Tilt (iVET™) and independent Variable Azimuth (iVAZ) technology allow each sector's beamtilt and azimuth pointing to be individually controlled from the base of the tower or remote from the site.

Features

- AISG and Ericsson protocol compliant
- Two methods of remote control
 - RS2323 - AISG interface for control via laptop
 - Handheld programmer
- Optional MHA section
- Superior pattern control

Antenna Electrical Specifications

Model	Frequency Range	-3 dB Horizontal Beamwidth	-3 dB Vertical Beamwidth	Upper Side Lobe Suppression*	Gain*
iZ65BU13	1920-2170 MHz	65°	7°	> 18 dB	17.7 dBi
iZ65BU15	1920-2170 MHz	65°	6°	> 18 dB	18.4 dBi
iZ65EU20	1920-2170 MHz	65°	4°	> 15 dB	19.5 dBi

Mechanical Specifications

Model	Horizontal Thrust @ Rated Wind	Dimensions (L x OD)	Weight (Mass)
iZ65BU13 w/o optional MHA section	183 lb (817N)	69.1" x 15.0" (1754 mm x 380 mm)	130 lb (59 kg)
iZ65BU13P with optional MHA section	266 lb (1190N)	100.5" x 15.0" (2554 mm x 380 mm)	165 lb (75 kg)
iZ65BU15 w/o optional MHA section	209 lb (936N)	79.2" x 15.0" (2010 mm x 380 mm)	141.5 lb (64.2 kg)
iZ65BU15P with optional MHA section	293 lb (1309N)	110.7" x 15.0" (2810 mm x 380 mm)	172.4 lb (78.2 kg)
iZ65EU20 w/o optional MHA section	249 lb (1106N)	93.5" x 15.0" (2374 mm x 380 mm)	167.5 lb (76 kg)
iZ65EU20P with optional MHA section	332 lb (1479N)	125.0" x 15.0" (3174 mm x 380 mm)	189.6 lb (86 kg)

Technical Data

Maximum Power: 200 watts
Polarization: Dual linear +/-45° slant
Nominal Impedance: 50 ohms
Radome Material: Acrylic capped ABS, color RAL 7035
Reflector Material: Aluminum
Return Loss: < 15 dB
Electrical Tilt Ranges: 2°-8° iZ65EU20 2°-10° for all other models
Isolation Between Ports: > 30 dB
Front-to-Back Ratio: > 25 dB
Intermodulation IM3 (2 x 20W carrier): > 150 dBc
Rated Wind Velocity: 100 mph (161 km/h)
Materials for Radiating Elements: Circuit board
Terminations: Antenna: 6 x 7/16 DIN socket Control: AISG compliant
Mounting Flange: 6 x M16 @ 60° on a 12" (304.8 mm) PCD

For detailed specifications, visit <http://antenna.pctel.com>.

*At maximum tilt angle, gain may be slightly reduced.

RET-CC Series

The RET-CC Series cables are used to control one or a series of the cellular infrastructure iVET™ antennas or iZ Tri-Sector products. The cables are used for a control link from the base of the antenna mounting structure (tower, building, etc.) to the antenna and for daisy chain connection of multiple antennas.

The RET-CC cable may be used in conjunction with the MAXRAD iVET™ control methods:

- ETC3CA - (US, UK, EU) RS232/RS485 interface unit
- ETCHA4 - (US, UK, EU) Handheld Programmer

Product Information

Model	Length
RET-CC-0003	.98' (0.3 m)
RET-CC-0005	1.6' (0.5 m)
RET-CC-001	3.2' (1.0 m)
RET-CC-003	9.8' (3.0 m)
RET-CC-005	16.4' (5.0 m)
RET-CC-010	32.8' (10.0 m)
RET-CC-020	65.6' (20.0 m)
RET-CC-025	82.0' (25.0 m)
RET-CC-040	131.2' (40.0 m)
RET-CC-060	196.8' (60 m)
RET-CC-070	229.6' (70 m)
RET-CC-075	246' (75 m)
RET-CC-090	295.3' (90 m)
RET-CC-100	328.0' (100 m)

LENGTH



MAXRAD



GPS/AVIATION SPECIAL PURPOSE ANTENNAS

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GPS-TMG-50N, 50 dB Internal Amplifier

The GPS-TMG-50N timing reference antennas are specifically designed for long-lasting, trouble-free deployments in congested cell-site applications.

The proprietary quadrifilar helix design, coupled with multi-stage filtering provides superior out-of-band rejection and lower elevation pattern performance than traditional patch antennas.

Their unique radome shape sheds water and ice, while eliminating problems associated with bird perching. The antenna can be purchased by itself, or with pipe mounting hardware. Custom models or site kit options are also available.



GPS-TMG-50N

Antenna Electrical Specifications

Frequency Band	Antenna Gain	Nominal Impedance	VSWR	Polarization	Connector
1575.42 +/- 10 MHz (GPS L1)	3.5 dBic	50 ohms	≤ 1.5:1	Right hand circular	N, female (one - bottom fed)

Mechanical Specifications

Antenna Dimensions	Shipping Dimensions	Antenna Weight	Shipping Weight	Radome Color
3.7" H x 3.1" D (94 H x 78 mm)	7.5" L x 4.4" W x 3.8" D (190 x 112 x 96 mm)	.36 lbs (.16 kg)	1.9 lbs (0.9 kg)	Off-white

Environmental Specifications

Temperature Range	Humidity
-40°C to +85°C	Up to 95%

Mounting

All mounting options fit pipes of 1"-1.45" (25 mm-37 mm) maximum diameter.

Model	Options
GPS-TMG-50N	Does not include mounting hardware.
GPS-TMG-50NCS	Includes matching white plastic mounting base.
GPS-TMG-50NMS	Includes standard mounting hardware (collar bracket, L-bracket and pipe clamps).

MAXRAD

Low Noise Amplifier Specifications

Frequency Band (MHz): 1575.42 ±10 MHz 3 dB bandwidth
Amplifier Gain: 50 dB ± 3 dB
Nominal Impedance: 50 ohms
Output VSWR: < 2.0:1
Noise Figure: ≤ 2.0 dB @ 25°C 2.5 dB maximum over temperature range
DC Voltage: 5 V Nominal, 3.5-28 V operating
DC Current: 37 mA typical, 45 mA max @ 5V
Filtering: 3 filters with pre-selector
Out-of-Band Rejection: -60 dB @ ±50 MHz off center
ESD and Transit Voltage Protection: input/output



GPS-TMG-40N

GPS-TMG-40N, 40 dB Internal Amplifier

The GPS-TMG-40 timing reference antennas are specifically designed for long-lasting, trouble-free deployments in congested cell-site applications. Their 40 dB high gain amplifier is well suited to address attenuation issues associated with applications requiring longer cable runs.

The proprietary quadrifilar helix design, coupled with multi-stage filtering provides superior out-of-band rejection and lower elevation pattern performance than traditional patch antennas.

Their unique radome shape sheds water and ice, while eliminating problems associated with bird perching. The antenna may be purchased by itself or with pipe mounting hardware. Custom models or site kits options are also available.

This antenna is made of materials that fully comply with provisions stipulated by EU directives RoHS 2002/95/EC.

This antenna also features ESD, reverse polarity protection and transit voltage suppression.

MAXRAD

Low Noise Amplifier Specifications

Frequency Band (MHz): 1575.42 +/- 12 MHz
Amplifier Gain: 40 dB +/- 3
Nominal Impedance: 50 ohms
Output VSWR: < 2.0:1
Maximum Noise Figure: < 2.5 dB @ +25°C
DC Voltage: 3.3-6 V
DC Current: ≤ 40 mA
Filtering: 3 stage filtering including pre-selector
Bandwidth: ≥ 60 dB @ +/- 50 MHz off center frequency

Antenna Electrical Specifications

Frequency Band	Antenna Gain	Nominal Impedance	VSWR	Polarization	Connector
1575.42 +/- 10 MHz	3.5 dBic	50 ohms	≤ 1.5:1	Right hand circular	N, female (one - bottom fed)

Mechanical Specifications

Antenna Dimensions	Shipping Dimensions	Antenna Weight	Shipping Weight	Radome Color
5.0" H x 3.2" D (126 H x 81 mm)	7.5" L x 4.4" W x 3.8" D (190 x 112 x 96 mm)	0.6 lbs (0.3 kg)	1.9 lbs (0.9 kg)	White

Environmental Specifications

Temperature Range	Humidity
- 40°C to + 85°C	95%

Mounting

All mounting options fit pipes of 1"-1.45" (25 mm-37 mm) maximum diameter.

Model	Options
GPS-TMG-40N	Does not include mounting hardware.
GPS-TMG-40NMS	Includes standard mounting hardware consisting of collar (part #540438A000) and pipe clamp (part #39A000).
GPS-QBW-40NCS	Includes economy collar mount (part #13315-1).

GPS-TMG-SP-40N, 40 dB Internal Amplifier with Integrated Lighting Protection ^{NEW}

The GPS-TMG-SP-40N timing reference antennas are specifically designed for long-lasting, trouble-free deployments in congested cell-site applications. The low noise, high gain amplifier is well suited to address attenuation issues associated with applications requiring longer cable runs.

The proprietary quadrifilar helix design, coupled with multistage filtering provides superior out-of-band rejection and lower elevation pattern performance than traditional patch antennas.

Their unique radome shape sheds water and ice, while eliminating problems associated with bird perching. The antenna may be purchased by itself or with pipe mounting hardware. Custom models or site kits options are also available.

This antenna is made of materials that fully comply with provisions stipulated by EU directives RoHS 2002/95/EC.

The antenna provides integrated lighting protection capability.

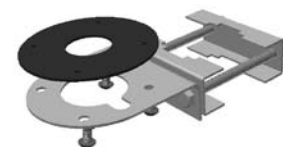
The antenna also features ESD, reverse polarity protection and transit voltage suppression.



GPS-TMG-SP-40N



19-9199-1 mount



39A000

Antenna Electrical Specifications

Frequency Band	Antenna Gain	Nominal Impedance	VSWR	Polarization	Connector
1575.42 +/- 10 MHz	3.5 dBic	50 ohms	<1.5:1	Right hand circular	N, female (one - bottom fed)

Mechanical Specifications

Antenna Dimensions	Shipping Dimensions	Antenna Weight	Radome Color
7.25" H x 3.2" D (184 x 81 mm)	7.5" L x 4.4" W x 3.8" D (190 x 112 x 96 mm)	0.75 lbs (0.34 kg)	White

Environmental Specifications

Temperature Range	Humidity
-40°C to +85°C	95%

Mounting

All mounting options fit pipes of 1"-1.45" (25 mm-37 mm) maximum diameter.

Model	Options
GPS-TMG-SP-40N	Does not include mounting hardware.
GPS-TMG-SP-40NLM	Includes standard mounting hardware consisting of pipe clamp (part #39A000).
GPS-TMG-SPS-40NCB	Includes heavy duty mount (part #19-9199-1).

MAXRAD

Low Noise Amplifier Specifications

Frequency Band: 1575.42 +/- 12 MHz
Amplifier Gain: 40 dB +/- 3 dB
Nominal Impedance: 50 ohms
Output VSWR: <2.0:1
Maximum Noise Figure: < 2.5 dB @ +25°C including pre-selector
DC Voltage: 3.3-6 V
DC Current: < 40 mA
Filtering: 3 stage filtering including pre-selector
Out of Band Rejection: ≥ -60 dB @ +/- 50 MHz off center frequency
Lightening Protection: 90 V, 20 kA, 8/20 μS



GPS-TMG-26N

GPS-TMG-26N, 26 dB Internal Amplifier

The GPS-TMG-26 timing reference antennas feature a 26 dB amplifier specifically designed to support long-lasting, trouble-free deployments in congested cell-site applications.

The proprietary quadrifilar helix design, coupled with multi-stage filtering provides superior out-of-band rejection and lower elevation pattern performance than traditional patch antennas.

Their unique radome shape sheds water and ice, while eliminating problems associated with bird perching. The antenna may be purchased by itself or with pipe mounting hardware. Custom models or site kits options are also available.

This antenna is made of materials that fully comply with provisions stipulated by EU directives RoHS 2002/95/EC.

MAXRAD

Low Noise Amplifier Specifications

Frequency Band (MHz): 1575.42 +/- 10 MHz
Amplifier Gain: 26 dB +/- 3
Nominal Impedance: 50 ohms
Output VSWR: < 2.0:1
Maximum Noise Figure: ≤ 2.5 dB @ +25°C including pre-selector
DC Voltage: 3.3- 6V (regulated)
DC Current: ≤ 40 mA
Filtering: 3 stage filtering including pre-selector
Bandwidth: ≥ 60 dB @ +/- 50 MHz off center frequency

Antenna Electrical Specifications

Frequency Band	Antenna Gain	Nominal Impedance	VSWR	Polarization	Connector
1575.42 +/- 10 MHz	3.5 dBic	50 ohms	≤1.5:1	Right hand circular	N, female (one - bottom fed)

Mechanical Specifications

Antenna Dimensions	Shipping Dimensions	Antenna Weight	Shipping Weight	Radome Color
5.0" H x 3.2" D (126 H x 81 mm)	7.5" L x 4.4" W x 3.8" D (190 L x 112 x 96 mm)	0.6 lbs (0.3 kg)	1.9 lbs (0.9 kg)	White

Environmental Specifications

Temperature Range	Humidity
- 40°C to + 85°C	95%

Mounting

All mounting options fit pipes of 1"-1.45" (25 mm-37 mm) maximum diameter.

Model	Options
GPS-TMG-26N	Does not include mounting hardware.
GPS-TMG-26NMS	Includes universal mounting hardware consisting of collar mount and L-Bracket mount.
GPS-TMG-26NCS	Includes economy collar mount (part #13315-1).

GPS-TMG-20N, 20 dB Internal Amplifier

The GPS-TMG-20 timing reference antennas are specifically designed for long-lasting, trouble-free deployments in congested cell-site applications. Their 20 dB high gain amplifier is well suited to address attenuation issues associated with applications requiring longer cable runs.

The proprietary quadrifilar helix design, coupled with multistage filtering provides superior out-of-band rejection and lower elevation pattern performance than traditional patch antennas.

Their unique radome shape sheds water and ice, while eliminating problems associated with bird perching. The antenna may be purchased by itself or with pipe mounting hardware. Custom models or site kits options are also available.

This antenna is made of materials that fully comply with provisions stipulated by EU directives RoHS 2002/95/EC.

This antenna also features ESD, reverse polarity protection and transit voltage suppression.



GPS-TMG-20N

Antenna Electrical Specifications

Frequency Band	Antenna Gain	Nominal Impedance	VSWR	Polarization
1575.42 +/- 10 MHz	3.5 dBic	50 ohms	< 1.5:1	Right hand circular

Connector	Input/Output
N, female (one - bottom fed)	<ul style="list-style-type: none"> • ESD protected • Reverse polarity protection • Transient voltage suppression on output

Mechanical Specifications

Antenna Dimensions	Shipping Dimensions	Antenna Weight	Shipping Weight	Radome Color
5" H x 3.2" D (126 H x 81 mm)	7.5" L x 4.4" W x 3.8" D (190 x 112 x 96 mm)	0.6 lbs (0.3 kg)	1.9 lbs (0.9 kg)	White

Environmental Specifications

Temperature Range	Humidity
- 40°C to + 85°C	95%

Mounting

All mounting options fit pipes of 1"-1.45" (25 mm-37 mm) maximum diameter.

Model	Options
GPS-TMG-20N	Does not include mounting hardware.
GPS-TMG-20NMS	Includes universal mounting hardware consisting of collar (part #540438A000) and pipe clamp (part #39A000).
GPS-TMG-20NCS	Includes economy collar mount (part #13315-1).

MAXRAD

Low Noise Amplifier Specifications

Frequency Band: 1575.42 center frequency 3 dB bandwidth +/- 10 MHz
Amplifier Gain: 20 dB +/- 3 dB
Nominal Impedance: 50 ohms
Output VSWR: < 2.0:1
Maximum Noise Figure: ≤ 2.5 dB @ +25°C including pre-selector
DC Voltage: 3.3 - 6.0 V (regulated)
DC Current: 20 mA, 30 mA max @ 5V
Polarization: Right hand circular
Filtering: 3 stage filters including pre-selector
Out of band rejection: -60 dB @ 1575.42 +/- 50 MHz



20100 Series

20100 Series, L1/L2 Airborne GPS Antennas

The antennas in the 20100 series are rugged units designed to operate under extreme environmental conditions. They are suitable for a wide variety of vehicle tracking applications, including missile, UAVs and projectiles.

These antennas feature dual o-ring seals that protect them against severe environmental conditions. Their radome is constructed of high grade polymer resin for UV and abrasion resistance. They will resist all de-icing fluids, jet fuels, and standard cleaning solvents.

The antennas in this series include a single RF connector interface and are mounted through a unique four hole mounting structure. Their radome can be configured in many forms to meet specific customer mounting applications.

MAXRAD

Antenna Electrical Specifications

Frequency Band	Antenna Gain	Nominal Impedance	VSWR	Polarization	Grounding Protection	RF Input
1575.42 +/- 10 MHz (GPS L1)	+3.5 dBiC nominal at zenith	50 ohms	< 2.0:1	Right hand circular	DC grounded	SMB jack (model #2011TF)
1227.6 +/- 10 MHz (GPS L2)						SMA jack (model #2011DG)

Mechanical Specifications

Antenna Dimensions	Antenna Weight	Radome Color
3.52" OD x 0.63" D	4.8 oz. nominal	Green (model #2011DG) Tan (model #2011TF)

Environmental Specifications

Temperature Range	Humidity	Altitude	Mechanical Shock	Salt Fog	Integral hole pattern
-40°C to +85°C	95%	Sea level to 50,000 ft	25 g maximum	Mil-Std-810E Method 509.1, Proc. 1	5985-01-395- 5809

Mounting

Model	Options
2011TF	Integral hole pattern
2011DG-CD	Integral hole pattern

12700 Series, Airborne Antennas

The 12700 series antennas are robust, rigorously tested and environmentally sealed units suitable for a wide variety of GPS applications, including vehicle tracking, marine and airborne navigation.

These antennas have been tested to DO-160 environmental test requirements and are designed to meet Arinc 743 and FAA TSO-C129 specifications.

They feature a sealed o-ring that protects them against severe environmental conditions for reliable, long-lasting performance. Their radome is constructed of high grade polymer resin for UV and abrasion resistance. They will resist all de-icing fluids, jet fuels, and standard cleaning solvents.



12700 Series

Antenna Electrical Specifications

Frequency Band	Antenna Gain	Nominal Impedance	VSWR	Polarization	Grounding Protection	RF Input
1575.42 +/- 10 MHz (GPS L1)	+4.5 dBiC nominal at zenith	50 ohms	< 1.5:1	Right hand circular	DC grounded	TNC female

Mechanical Specifications

Antenna Dimensions	Antenna Weight	Radome Color
3.4" H x 2.2" W	3.6 oz. nominal	White

Environmental Specifications

Temperature Range	Humidity
-40°C to +85°C	95%

Mounting

Model	Options
1270	Surface mount four hole pattern
1271	Surface mount four hole pattern
1273	Surface mount four hole pattern

MAXRAD

Low Noise Amplifier Specifications

Frequency Band (MHz): 1575.42 +/- 10 MHz (GPS L1)
Amplifier Gain: 26 dB (Part #1270FW) Passive (Part #1271FW) 35 dB (Part #1273FW)
Nominal Impedance: 50 ohms
Output VSWR: < 2.0:1
Noise Figure: 2.5 dB nominal
DC Voltage: 4.5 to 5.5 VDC
DC Current: 40 mA nominal
Polarization: Right hand circular
Filtering: Ceramic - dual



12200 Series

12200 Series, Airborne Antennas

The 12200 series antennas are designed to rapidly implement GPS technology on-board existing military airborne platforms.

Due to restrictions on modifications to military aircrafts, commercially available antennas cannot be installed. To address this issue, these antennas are designed to interface with the standard sextant port currently used for navigation in virtually all military aircrafts from B-52s to C-130s. The National Stock Number reference for this type of antennas is 5985-01-395-5809.

These antennas are PLGR (Precision Lightweight GPS Receiver) compatible and preclude future costly modifications to the airframe. Several amplified model configurations are available, as well as a passive model.

MAXRAD

Low Noise Amplifier Specifications

Frequency Band (MHz): 1575.42 +/-10.0 MHz (GPS L1)
Amplifier Gain: 26 dB (Part #1220EB)
Nominal Impedance: 50 ohms
Output VSWR: < 1.9:1
Maximum Noise Figure: 2.5 dB
DC Voltage: 5 to 28 VDC through connector
DC Current @ 5V: 25 mA typical, 40 mA Max (26.5 dB) 40 mA typical, 60 mA Max (40 dB) 37 mA typical, 45 mA Max (50 dB)
Filtering: Ceramic - dual

Antenna Electrical Specifications

Frequency Band	Antenna Gain	Nominal Impedance	VSWR	Polarization	Grounding Protection	RF Input
1575.42 +/-10 MHz (GPS L1)	+4.5 dBiC nominal at zenith	50 ohms	< 1.9:1	Right hand circular	DC grounded	BNC female

Mechanical Specifications

Antenna Dimensions	Antenna Weight	Radome Color
10" L x 2.5" OD	12.2 oz. nominal	Black

Environmental Specifications

Temperature Range	Humidity
-40° C to +85° C	95%

Mounting

Model	Options
12200 Series	Standard sextant port hole pattern

12100 Series, Airborne Puck Antennas

The 12100 series antennas are robust, rigorously tested and environmentally sealed units suitable for a wide variety of GPS applications. They are ideal for vehicle tracking, marine or airborne navigation installations requiring maximum security and durability.

These antennas have been tested to DO-160 environmental test requirements and are designed to meet Arinc 743 specifications. They feature dual o-ring seals that protect them against severe environmental conditions for reliable, long-lasting performance. Their radome is constructed of high grade polymer resin for UV and abrasion resistance. They will resist all de-icing fluids, jet fuels, and standard cleaning solvents.

The antennas in this series are hard mounted through a unique single hole feed structure and include gaskets to prevent air and water leaks. They are available in passive form (no amplifier) or in a variety of active amplified gain configurations.



12100 Series

Antenna Electrical Specifications

Frequency Band	Antenna Gain	Nominal Impedance	VSWR	Polarization	Grounding Protection	RF Input
1575.42 +/-10 MHz (GPS L1)	+4.5 dBiC nominal at zenith	50 ohms	< 1.9:1	Right hand circular	DC grounded	TNC female

Mechanical Specifications

Antenna Dimensions	Antenna Weight	Radome Color	NATO Stock Number
2.7" OD x 0.75" D	3 oz. nominal	White	5820 99 147 2772 (for 1213FW only)

Environmental Specifications

Temperature Range	Humidity
-40°C to +85°C	95%

Mounting

Model	Options
1210FW	Through hole 5/8-18UNC-2A thread
1213FW	Through hole 5/8-18UNC-2A thread

MAXRAD

Low Noise Amplifier Specifications

Frequency Band (MHz): 1575.42 +/-10 MHz (GPS L1)
Amplifier Gain: 26 dB (Part #1210FW) 40 dB (Part #1213FW)
Nominal Impedance: 50 ohms
Output VSWR: 2.0:1 maximum
Maximum Noise Figure: 2.5 dB maximum
DC Voltage: 5 to 28 VDC through connector
DC Current: 25 mA typical, 40 mA Max (13 and 26.5 dB) 40 mA typical, 60 mA Max (40 dB)
Filtering: Dual ceramic filters



2225NW

MAXRAD

Low Noise Amplifier Specifications

Frequency Band (MHz): 1575.42 MHz (L1 band) 1227.60 MHz (L2 band) 1176.45 MHz (L5 band)
Amplifier Gain: 48 +/-3 dB
VSWR: < 1.5:1 +/- 10 MHz
Maximum Noise Figure: 2.0 dB
DC Voltage: 24 V
DC Current: ≤ 200 mA @ 24 V
Bandwidth: -1 dB +/- 10 MHz (L1, L2, L5) -80 dB +/- 50 MHz (L1, L2, L5)
Bandpass Ripple: 1.5 dB +/- 10 MHz (L1, L2, L5)
Group Delay Ripple: 3 ns @ L1 +/- 10 MHz 4 ns @ L2 +/- 10 MHz 4 ns @ L5 +/- 10 MHz
1 dB Compression Point: ≥ 10 dBm

Precision Performance WAAS Antenna

Specifically designed to meet the demanding standards necessary for worldwide WAAS aviation operations, model 2225NW features both advanced spiral technology and a self-complementary element structure.

The antenna's low multipath error design has the lowest phase error of all antenna element designs. The spiral minimizes manufacturing errors and its self-complementary currents act to center antenna phase. The large cavity design (1/5 lambda) allows for similar, choke slot-like (radiation pattern), roll off at the horizon and a superior front-to-back ratio.

Antenna Electrical Specifications

Frequency Band	Antenna Gain	Nominal Impedance	VSWR	Polarization
1575.42 MHz (L1 band)	>-3 dBic @ El=90° (zenith); ≥ -9.0 dBic @ El=5° (L1)	50 ohms	< 2.0:1 @ +/-10 MHz	Right hand circular
1227.60 MHz (L2 band)	>-3 dBic @ El=90° (zenith); ≥ -5.0 dBic @ El=5° (L2)	50 ohms	< 2.0:1 @ +/-10 MHz	Right hand circular
1176.45 MHz (L5 band)	>-3 dBic @ El=90° (zenith); ≥ -9.0 dBic @ El=5° (L5)	50 ohms	< 2.0:1 @ +/-10 MHz	Right hand circular

Elevation Boresight	Elevation HPBW	Azimuth HPBW	Axial Ratio
90° above horizon	66° (L1 band) 90° (L2 band) 103° (L5 band)	Omnidirectional	8 dB (max) elevation from 5° to 45° 4 dB (max) elevation above 45°

Mechanical Specifications

Antenna Dimensions	Antenna Weight	Radome Color
24.5" H x 12.8" OD (61.27 x 32.5 cm)	30 lbs (13.6 kg)	White

Environmental Specifications

Temperature Range	Wind Operational
-58°F to 158°F	0-100 mph

Mounting

Model	Options
2225NW	Interface to PALCO mount



PCTEL RF Solutions Group (RFSG)

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PCTEL's RF Solutions Group is a leading supplier of high-speed, multi-standard receivers as well as test and measurement solutions to the wireless industry worldwide.



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Wireless Solutions

- * Interference & Propagation Measurements
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- * Scanning Receivers
- * Market Analysis
- * OEM Solutions

Wireless Applications

- * Network Optimization
- * Interference Measurements
- * Indoor Test & Measurement
- * Coverage Testing

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CLARIFY[®]

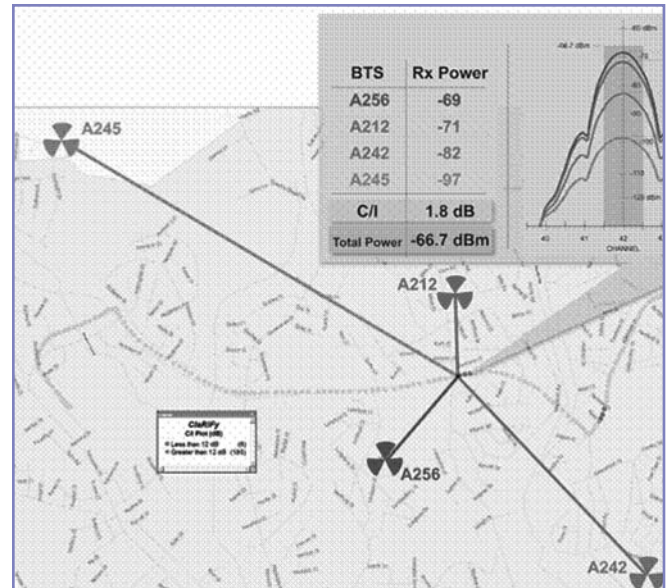
Leading Interference Management

Enhanced Network Optimization Using Superior Measurements

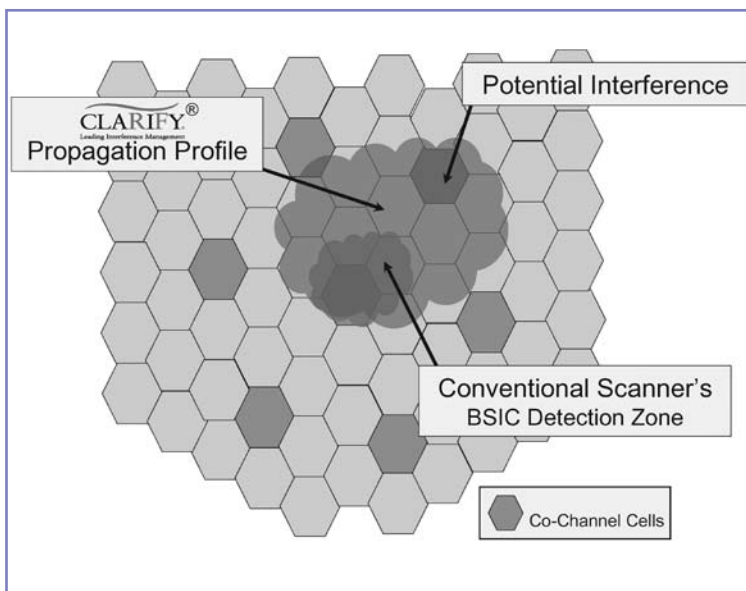
CLARIFY Propagation and Interference Management System

With its high dynamic range and ability to identify and locate interference sources, CLARIFY sets the industry standard for propagation measurement and interference management in cellular networks. CLARIFY simplifies the resolution of technically difficult network problems without requiring network interruption, off-hours driving, the use of CW transmitters or the burdens of other expensive measurement methods. CLARIFY data is an essential input to network optimization, frequency planning and cell planning.

Available in dual mode WCDMA/GSM and single mode GSM configurations, the CLARIFY system enables operators to manage their networks and optimize performance and capacity while minimizing infrastructure investment.



CLARIFY separates interferes and identifies their sources.



Regular scanners can only decode BSIC close to the sector being measured, where C/I conditions are favorable. CLARIFY measures signal propagation over a much greater range and reveals where co-channel interference is located.

The Interference Management Challenge

RF Spectrum is a scarce resource in today's wireless network environment. Operators must effectively use and reuse frequencies within their markets to achieve market-wide coverage and high quality of service (QoS) for their customers. The need to understand propagation and manage RF interference becomes increasingly important with intensified user density and the resulting increases in frequency reuse and base stations, particularly for WCDMA networks.

If not properly managed, RF interference can account for diminished quality of service and inefficient spectrum use, which can translate into unhappy customers and reduced profits for wireless operators.

CLARIFY is a revolutionary system that allows operators to quickly, effectively and accurately measure the propagation of each base station in their entire network without service interruption, even when those base stations are interfering with each other.

Propagation Measurement and Interference Management

CLARIFY in Action

CLARIFY Data Enhances Engineering Effectiveness

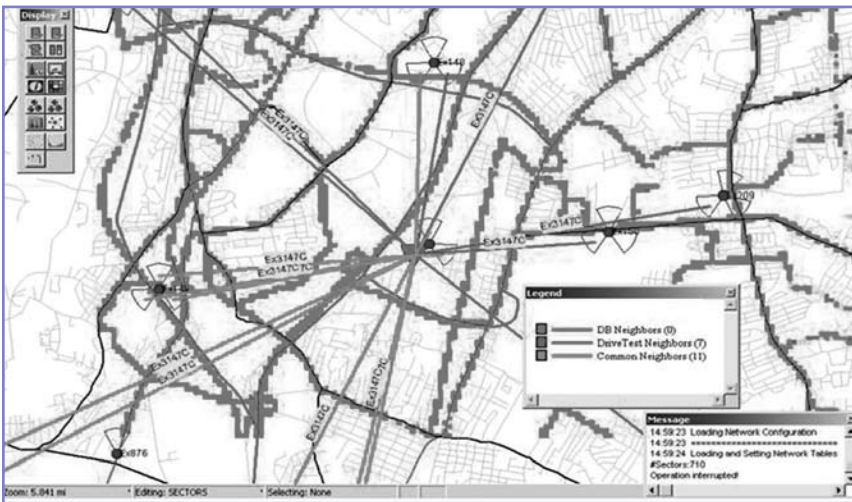
Frequency Planning

Challenge: Incomplete or inaccurate propagation data inputs for AFP

- Switch measured IM limited by dynamic range of mobile (+5 dB C/I)
- Predicted IM limited by accuracy of model

Solution: CLARIFY Interference Matrix

- Accurate, measurement-based IM improves AFP performance
- CLARIFY resolves co-BCCH signals within its dynamic range of -18 dB C/I
- Measurement accuracy of ± 1 dB



Spider maps show neighbor candidates.

CLARIFY Solves Interference Problems In Urban Environments

A wireless operator tried traditional methods for solving interference problems on a river bridge. After weeks without success, the company brought in CLARIFY, which revealed that the source of interference was a site seven miles away. The interfering station had been left out of previous analysis on the assumption it was too far away to interfere. The company adjusted that cell site and fixed a problem that had defied solution by other means.

CLARIFY Cuts CAPEX by Identifying Boomer Sites, Optimizing Neighbor Lists

Using the CLARIFY Containment Index, which combines the CLARIFY Interference Matrix with traffic data from the switch, carriers see how signals propagate across numerous rings of cell sites, even at locations where strong co-channel interference exists. This CLARIFY-driven process identifies both interference sources and potential neighbor candidates that escape detection by handsets and legacy drive-test scanners. As a result, CLARIFY users quickly find trouble spots where changes in frequency planning or site design will yield the most dramatic improvements in service quality and network capacity.

Performance Engineering

Challenge: Over-propagating sectors

- Reduced network-wide C/I, degraded quality of service
- Limited frequency reuse, reduced system capacity
- Precise identification of interferers is difficult

Solution: CLARIFY interference identification tools

- Direct ID of interference sources made possible through high dynamic range
- Tools include:
 - Containment Index
 - C/I plots
 - Nth best server
 - Server and interferer spider maps

The CLARIFY

CLARIFY Applications and Benefits

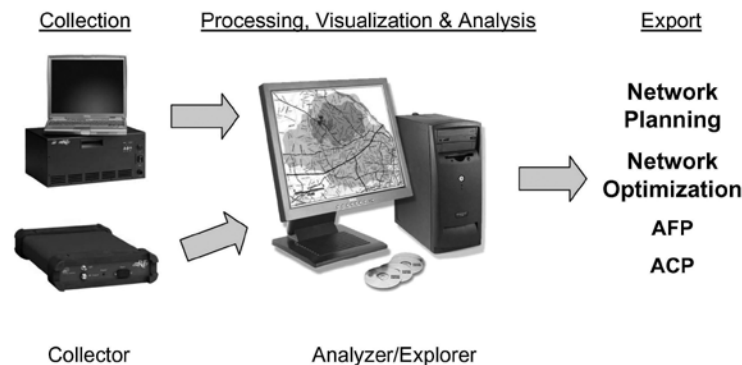
The unique strength of the CLARIFY system is its ability to generate comprehensive and accurate propagation profiles for all sectors in the network without need for network interruption. There are many uses and applications for measurement-based propagation data, all of which can be enhanced by using CLARIFY instead of a conventional scanner.

CLARIFY Applications:

- Locate interference
- Identify and control excessive propagation
- Optimize neighbor lists
- Generate accurate measurement-based IM
- Troubleshoot call failures
- Enhance the performance of planning tools and optimization solutions
- Propagation Model Optimization (PMO)

CLARIFY Benefits - Enhancing these Applications using CLARIFY data:

- Improved Network Quality
 - ~ Improved frequency plans
 - ~ Decreased interference
 - ~ Improved propagation containment
 - ~ Reduced soft handoff in WCDMA
- Better spectrum utilization
- Improved WCDMA/GSM planning
 - ~ Inter network neighbor list planning and optimization
 - ~ Inter network handoff optimization
 - ~ Enhanced optimization of co-sited networks



The CLARIFY solution is defined by three components: Collector, Analyzer and Explorer. Together, they enable collection, post processing, export and detailed viewing and analysis of some of the most comprehensive propagation data available today.

CLARIFY - Collector



Collector uses patented technology to collect measurements which enable the CLARIFY solution to achieve its high dynamic range output delivering measurements that are associated with cellsite of origin. The output from Collector is a data file which is input to CLARIFY-Analyzer for processing.

CLARIFY - Analyzer



Analyzer, the heart of the CLARIFY system, applies patented algorithms to the collected measurements to extract detailed propagation data that no scanner can deliver alone.

CLARIFY - Explorer



Explorer unlocks the power of CLARIFY measured data, providing carriers with detailed images of signal propagation and RF interference. CLARIFY-Explorer shows the extent of propagation from each sector, highlights problem areas and identifies interference problem sources, enabling engineers to quickly identify and resolve network issues.

Solution

DATA Collection and Analysis With CLARIFY

"CW like" data from one drive without the disruption

The CLARIFY solution provides measurements deep below the interference level, down to an unprecedented -18dB C/I in GSM and -20dB C/Io in WCDMA. For the first time RF Engineers have the ability to automatically compile an exact and measured profile of the propagation in every sector in their network.

Simultaneous Collection in WCDMA and GSM

WCDMA/GSM CLARIFY enables carriers to cross optimize their two networks and to operate them as one "system". Collecting data for both networks simultaneously during one drive enhances cross optimization results, inter network handoff neighbor lists and shared antenna optimization.

CLARIFY Highlights

- Interference immunity down to -18 dB co-channel C/I
- Measures interference on each scanned channel
- Enables identification of interference sources
- Uses patent-pending automated analysis technology
- Reveals propagation of each sector in the network

With this information, wireless carriers can understand the total channel power at each measurement location as well as the power of individual contributing base station sources.

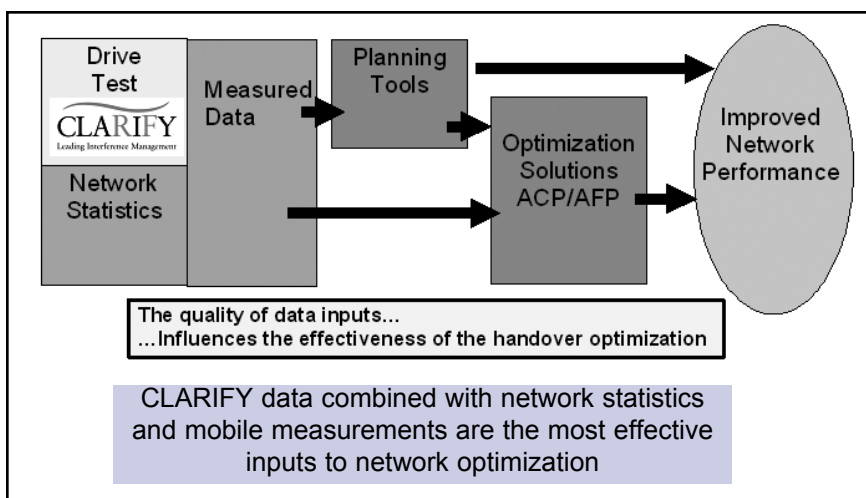
CLARIFY

**Reduce Costs by
Driving Less**

**Find Network
Problems**

**Enhance Network
Optimization**

Collect, Analyze, View Solve!



CLARIFY data enhances planning and optimization

Wireless carriers can use CLARIFY data to enhance results from their existing planning tools and optimization solutions. PCTEL has worked with planning and optimization solution providers to create interfaces that allow CLARIFY data to be imported directly into their solutions.

Let PCTEL CLARIFY your Network ... Ask us about our Engineering Services Team today.

InSite® Wireless Test System

Benefits

- Provides a Propagation Tool, Drive-Test Scanner and Spectrum Analyzer all in one Solution
- Portable and easy to use
- Supports SeeGull® LX High performance scanning receivers
- Delivers accurate and precise measurements
- Fully integrated test system
- User friendly and intuitive graphical user interface

Features

- Collection capability for SeeGull® family of scanning receivers
- Supports Distance Based CW measurements
- Built-in Spectrum Analysis
- Measures, displays and logs scanner data. *(See receiver data sheets for detail of collected measurements)*
- GPS from Receiver (Internal) or External Device
- Hardware auto-detection
- Playback data without hardware key required
- Data export capability
- Provides logging options and audio alarms settings
- Indoor option available

Overview

The InSite® Wireless Test System offers a cost-effective and user friendly approach to collecting and displaying scanner data for deployment and optimization of wireless networks. The InSite® system helps wireless operators to measure and collect the accurate data needed as inputs for effective planning and optimization, enabling them to meet their network coverage, capacity, and quality goals.

The InSite® Wireless Test System includes:

- InSite® LX software
- SeeGull® LX Scanning Receiver
- *Multiple Technologies to Choose from*
- Antennas, Cables and Accessories
- Laptop or Tablet PC *(Optional)*
- Doppler Radar Sensor (DRS) for Distance Based Sampling (DBS) *(Optional)*



A Typical InSite® System Configuration.

Applications

The InSite® system can be used throughout the network lifecycle, from initial deployment to ongoing testing and optimization, for:

- Drive Test and Measurements
- Site Surveys
- Coverage Analysis
- Model Tuning (with DBS option)
- Base Station Monitoring
- Troubleshooting
- Network Optimization

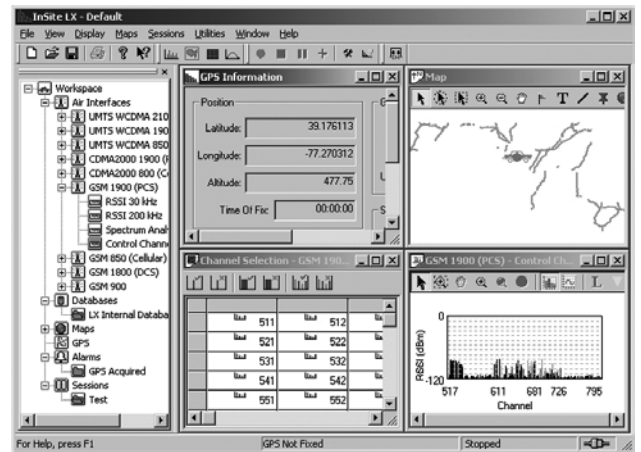
SeeGull® Scanners Supported

- GSM
- WCDMA
- GSM/WCDMA
- CDMA
- EV-DO
- CDMA/EV-DO
- CDMA450
- EV-DO450
- CDMA450/EV-DO450



Display Features

- Bar Chart — displays scanned data; includes min and max hold features and two markers
- Map — displays drive route, provides panning and zooming abilities
- Selection Grid — provides a grid for selecting channels and measurement types
- Spectrum Analyzer — displays spectrum analysis scans and provides settings similar to a typical spectrum analyzer
- GPS Data

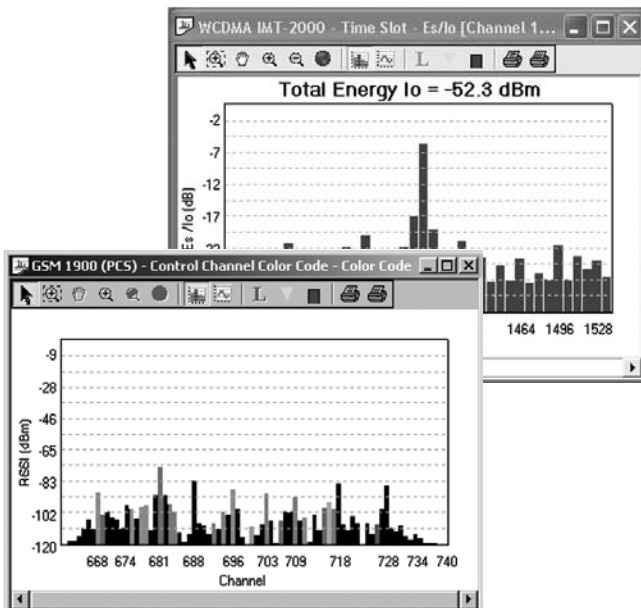


CDMA/WCDMA

- Timeslot (TECH) Scan
- Pilot (CPICH) Scan
- Top N Pilot Scan

GSM

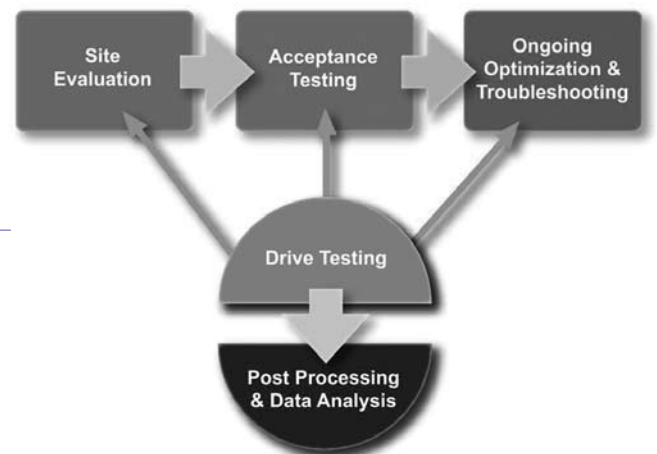
- RSSI Scan
- BSIC Scan
- BSIC Decoding
- C/I Measurements
- Layer 3 Message Decoding



InSite® Provides the Complete Picture

Wireless Operator Challenge: To optimize performance and improve quality of service during the network roll-out phase and the ongoing operation of the network.

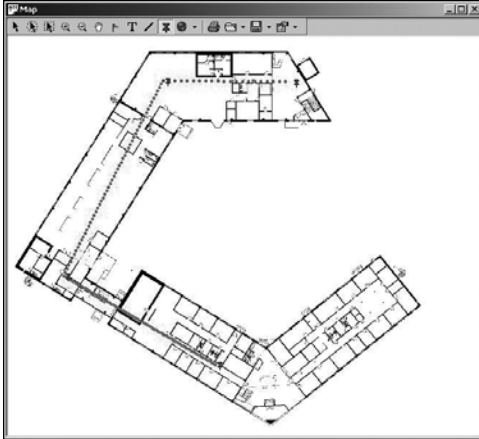
InSite® Delivers: Drive testing with scanning receivers provides detailed, accurate measurements of network propagation and coverage. The InSite® system answers the "How" and "Why" questions completing the picture and filling the gaps left by drive testing and switch statistics.



Drive testing with the InSite® System addresses the entire network evolution cycle.

Indoor Option

- GPS coverage not required for location
- Import floor plans (TAB, MIF or SHP formats)
- Point and click as you walk
- Automatic display of route
- Data can be collected and stored for future reference
- Session playback capability
- Over-the-Shoulder Carrying Pouch for Battery Pack & Scanner



In-Building Navigator

Battery Pack & Scanner Pouch



InSite® LX Software Specifications

Laptop/PC (recommended): 1.7 GHz, Intel Pentium M, Windows 2000 or XP (U.S. Version Only), 512 MB RAM, 60 GB Hard drive

Laptop/PC (minimum): 1 GHz, Intel Pentium III, Windows 2000 or XP (U.S. Version Only), 512 MB RAM, 20 GB Hard drive

Tablet PC (recommended): 1.5 GHz, Intel Pentium M, Windows XP Tablet PC Edition (U.S. Version Only), 512 MB RAM, 60 GB Hard drive

Data Management: SQL (MSDE) database for storage of up to 2GB of data; automatic backup and warning

Export Formats: DTR, DTF, and MDB (Microsoft Access)

Map File Formats: .TAB, .MIF, .SHP

Ordering Information

For Ordering Information Please Contact:

PCTEL, RF Solutions Group's Sales at +1.301.515.0036



PCTEL, RF Solutions Group

20410 Obervation Drive, Suite 200, Germantown, Maryland 20876, USA

Phone: +1.301.515.0036 Fax: +1.301.515.0037

www.pctel.com

SeeGull Scanners

WCDMA
GSM
WCDMA/GSM

CDMA
EV-DO
CDMA-EVDO

CDMA450
EV-DO450
CDMA450/EV-DO45



Industry Leading Receivers for Wireless Networks

Measure the physical layer of the air interface

Answer the "Why" and "How" questions

Troubleshoot and optimize RF performance

For ordering information please contact:

PCTEL RF Solutions Group

20410 Observation Drive, Suite 200 Germantown, MD 20876 USA

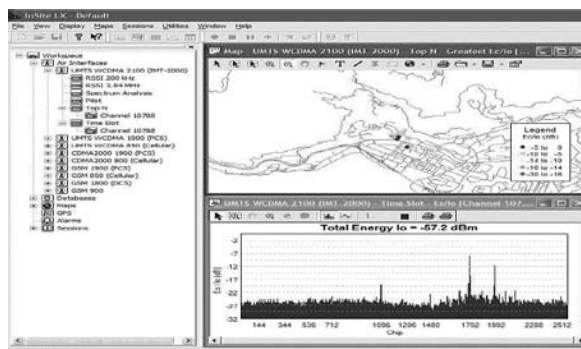
Phone: +1.301.515.0036 Fax: +1.301.515.0037

www.pctel.com

TECHNICAL SPECIFICATIONS

SeeGull® LX WCDMA/HSDPA Receiver

Wireless Test Solutions



CERTIFIED
ISO 9001:2000

PCTEL, RF Solutions Group's WCDMA/HSDPA scanning receiver is based on the SeeGull® LX platform, which provides high-speed measurements and superior performance. This receiver is a DSP-based software radio that provides unparalleled precision and user-defined options for the measurement of WCDMA and HSDPA networks in these frequencies: WCDMA 2100, 1900, 1800 and 850.

PCTEL's scanning receivers are used globally to optimize wireless network performance via drive test and measurement, tower site survey, base station monitoring, and wireless market analysis tools.

Operational Modes

RSSI Scan

Measures and reports RSSI for a given channel list. The measurement bandwidth is selectable as either 200 KHz or 3.84 MHz.

Spectrum Analyzer

Measures and reports power spectral density using frequency domain techniques. Frequency span in the RF Band, resolution bandwidth (5, 10, 20, 40, and 80 kHz), and sweep averaging (1, 2, 4, 8, and 16) are adjustable.

Distance Based Sampling Option

A cost-effective and user friendly approach in providing both model tuning and optimization capability in one tool. User can select distance that needs to be traveled in between two consecutive RSSI Frequency measurements in 200 kHz bandwidth.

SIR Measurements

Measures CPICH Signal to Interference Ratio (SIR).

Rake Finger Count

Detects up to 25 multipath components (Rake Fingers) of received signal. Accuracy is ± 1 finger.

Multi-Frequency Scans

Thousands of different concurrent measurements in different operational modes can be performed on different frequencies.

Timeslot (SCH) Scan

Measures and reports Eps/Io (PSCH_Ec/Io) of the primary synchronization channel (PSCH) at uniform instances of time during one timeslot (2560 chips).

Pilot (CPICH) Scan

Measures and reports Ec/Io for specified pilots in the Common Pilot Channel (CPICH). RSCP (Receive Strength Code Power), also known as Ec, can be derived from the reported Ec/Io and Io. Peak Ec/Io, Aggregate Ec/Io, Delay Spread, Rake Finger Count, SIR, Time Offset, PSCH_Ec/Io, SSCH_Ec/Io, and Io are measurable parameters for this scan.

Top N Pilot Scan

Returns top N Pilot (CPICH) in descending Ec/Io order where $N \leq 32$. Same measurement parameters are available as with the CPICH scan. Top N Pilot Scan is preferred CPICH operational mode.

Built-in GPS

The internal GPS receiver is controlled through a single RS-232 port.

HSDPA Measurements

Measurements of HSDPA CPICH essential for understanding coverage and HSDPA CQI and for HSDPA optimization.

WCDMA

HSDPA

CDMA

EV-DO

CDMA Japan

GSM

GPRS

EDGE

IS-136

TECHNICAL SPECIFICATIONS

SeeGull® LX GSM Receiver

Wireless Test Solutions



CERTIFIED
ISO 9001:2000

PCTEL, RF Solutions Group's newest version of the GSM scanning receiver is based on the SeeGull® LX platform, which provides high-speed measurements and superior performance. This receiver is a DSP-based software radio that provides unparalleled precision and user-defined options for the measurement of GSM networks.

PCTEL's scanning receivers are used globally to optimize wireless network performance via drive test and measurement, tower site survey, base station monitoring, and wireless market analysis tools.

Operational Modes

Spectrum Analyzer

Measures and reports power spectral density using frequency domain techniques. Frequency span in the RF Band, resolution bandwidth (5, 10, 20, 40, and 80 kHz), and sweep averaging (1, 2, 4, 8, and 16) are adjustable.

Distance Based Sampling Option

A cost-effective and user friendly approach in providing both model tuning and optimization capability in one tool. User can select distance that needs to be traveled in between two consecutive RSSI Frequency measurements in 30 kHz bandwidth.

RSSI Scan

Measures and reports RSSI for a given channel list. The measurement bandwidth is selectable as either 30 kHz or 200 kHz. Tuning resolution matches band channelization.

BSIC Decoding

The BSIC is decoded in the receiver and can be used for identifying the transmitting base station. BSIC sensitivity is increased with the LX platform.

C/I Measurement Option

Provides co-channel interference measurements.

BCCH Decoding Option

Enables decoding of BCCH Type 3 message, including Cell ID, MCC, MNC, and LAC parameters. Decoding is supported on numerous user selectable BCCH frequency channels.

Multiple Scan Lists

Thousands of different concurrent measurements in different operational modes can be performed on different frequencies.

Built-in GPS Option

The optional internal GPS receiver is controlled through a single RS-232 port.

Wi-Fi
UMTS WCDMA
cdma2000
cdmaOne
GSM
IS-136
iDEN
SMR
Paging
ETACS
NMT
AMPS
NAMPS
JCDMA
KCDMA
PDC

TECHNICAL SPECIFICATIONS

SeeGull® LX WCDMA/GSM

Including HSDPA & GPRS/EDGE

Wireless Test Solutions

PCTEL, RF Solutions Group's GSM/WCDMA scanning receiver enables simultaneous scanning and data collection across WCDMA/HSDPA and GSM/GPRS/EDGE networks. This scanner is available for both

- WCDMA 2100 and GSM 900/1800 markets and
- WCDMA 850/1900 and GSM 850/1900 markets.

Operators can drive once and collect all the data necessary to optimize and manage multiple networks as one "system".

PCTEL's scanning receivers are used globally to optimize wireless network performance in conjunction with drive test and measurement, tower site survey, base station monitoring, and wireless analysis and post processing tools.



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ISO 9001:2000

Operational Modes

RSSI Scan

Measures and reports RSSI for a given channel list. The measurement bandwidth is selectable as either 200 kHz or 3.84 MHz for WCDMA or 30 kHz for GSM.

Spectrum Analyzer

Measures and reports power spectral density. Frequency span in the RF Band, resolution bandwidth (5, 10, 20, 40, and 80 kHz), and sweep averaging (1, 2, 4, 8, and 16) are adjustable.

Multiple Concurrent Measurements

Thousands of different concurrent measurements in different operational modes can be performed on different frequencies.

Interference Measurements

Measures CPICH Signal to Interference Ratio (SIR) in WCDMA and C/I in GSM.

Built-in GPS

The internal GPS receiver is controlled through the USB interface.

HSDPA, GPRS and EDGE Measurements

For optimization of wireless data protocols this scanner measures CPICH power for HSDPA and BCCH C/I for GPRS/EDGE.

Distance Based Sampling Option

A cost-effective and user friendly approach in providing both model tuning and optimization capability in one tool. User can select distance that needs to be traveled in between two consecutive RSSI Frequency measurements in 30 kHz bandwidth for GSM and 200 kHz bandwidth for WCDMA.

GSM Features

C/I Measurements Option

Provides co-channel interference measurements.

BSIC Decoding

The BSIC is decoded in the receiver and can be used for identifying the transmitting base station. BSIC sensitivity is 90% detection at 2dB C/I.

BCCH Decoding Option

Enables decoding of BCCH Type 3 message, including Cell ID, MCC, MNC, and LAC parameters and Type 2 Neighbor List.

RSSI Frequency Scan

Measures and reports RSSI for a given frequency list. The measurement bandwidth is selectable as either 200 kHz for WCDMA or 30 kHz for GSM. Can be used with Distance Based Sampling option.

WCDMA Features

Rake Finger Count

Detects up to 51 multipath components (Rake Fingers) of received signal. Accuracy is ± 1 finger.

Top N Pilot Scan

Returns top N Pilot (CPICH) in descending Ec/Io order where $N \leq 32$. Same measurement parameters are available as with the CPICH scan.

Pilot (CPICH) Scan

Measures and reports Ec/Io for specified pilots in the Common Pilot Channel (CPICH). RSCP (Receive Strength Code Power), also known as Ec, can be derived from the reported Ec/Io and Io. Peak Ec/Io, Aggregate Ec/Io, Delay Spread, Rake Finger Count, SIR, Time Offset, PSCH_Ec/Io, SSCH_Ec/Io, and Io are measurable parameters for this scan.

Timeslot (PSCH) Scan

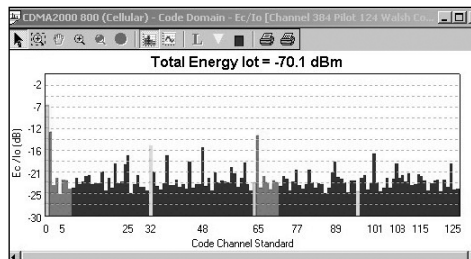
Measures and reports Eps/Io (PSCH_Ec/Io) of the primary synchronization channel (PSCH) at uniform instances of time during one timeslot (2560 chips).

WCDMA
HSDPA
CDMA
EV-DO
CDMA Japan
GSM
GPRS
EDGE
IS-136

TECHNICAL SPECIFICATIONS

SeeGull® LX CDMA2000 Receiver

Wireless Test Solutions



PCTEL RF Solutions Group's CDMA scanning receiver is a DSP-based software radio that provides unparalleled precision and user-defined options for the measurement of cdma2000 networks in the 450, 850 and 1900 MHz bands.

Operational Modes

Top N Pilot Scan

Returns top N pilots in descending power ($N \leq 32$). Selectable Peak Ec/Io, Peak Ec and Aggregate Ec/Io. Peak is measured as the peak correlation within the PN window. Aggregate power is estimated by combining the powers for all correlator bins above the PN threshold. Pilot Delay and Delay Spread reported.

Pilot Scan (Up to 512 Pilots)

Provides the aggregate and peak Ec/Io, Peak Ec, Pilot Delay, and Delay Spread for each pilot in the list.

Network Synchronization Option

Allows measurements to be made in areas without GPS for indefinite duration. User-selectable modes:

- Sync Channel only (e.g. indoor/without GPS): measurements are relative to network timing
- GPS priority (e.g. GPS is sometimes lost): when GPS present, measurements are absolute; when GPS is lost Sync Channel automatically "kicks in"

Layer 3 Support Option

Reports Sync Channel Message (SYNC), and Primary Paging Channel Parameters (includes NLM (Neighbor List Message), ENLM, SPM, ESPM, CCLM, and ECCLM).

Built-in GPS

The internal GPS receiver is controlled through a single RS-232 port.

Temporal Analyzer (Zoomed Pilot) Scan

Returns correlator output points for specified pilot over up to 256 zoom window chip size.

RSSI Scan

Measures and reports RSSI for a given channel list. The measurement bandwidth is selectable as either 30 kHz or 1.25 MHz. Tuning resolution matches channelization.

RSSI Frequency Scan

Measures and reports RSSI for a given frequency list. The measurement bandwidth is 30 kHz. Can be used with Distance Based Sampling option.

Spectrum Analyzer

Measures and reports power spectral density. Frequency span, resolution bandwidth (5, 10, 20, 40, and 80 kHz) and sweep averaging (1, 2, 4, 8, and 16) are adjustable.

Multi-Frequency Scans

Thousands of different concurrent measurements in different operational modes on different frequencies.

Code Domain Scan Option

For each RF channel, Code Domain Scan allows the determination of where the signal energy is into the code-separated channels. Reports Ec/Io for each Code Channel in a Walsh Channel user list, selected 0-127.

Distance Based Sampling Option

A cost-effective and user friendly approach in providing both model tuning and optimization capability in one tool. User can select distance that needs to be traveled in between two consecutive RSSI Frequency measurements in 30 kHz bandwidth.

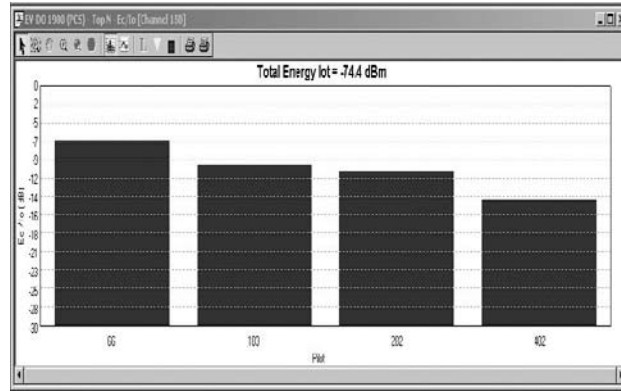
CERTIFIED
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WCDMA
HSDPA
CDMA
EV-DO
CDMA Japan
GSM
GPRS
EDGE
IS-136

TECHNICAL SPECIFICATIONS

SeeGull® LX EV-DO

Wireless Test Solutions



PCTEL RF Solutions Group's EV-DO scanning receiver is a DSP-based software radio that provides unparalleled precision and user-defined options for the measurement of EV-DO networks in the 450, 850 and 1900 MHz bands.

PCTEL's scanning receivers are used globally to optimize wireless network performance in conjunction with drive test and measurement, tower site survey, base station and post processing monitoring, and wireless market analysis tools.

Operational Modes

Pilot Scan (Up to 512 Pilots)

Selectable Peak Ec/Io, Peak Ec and Aggregate Ec/Io. Peak is measured as the peak correlation within the PN window. Aggregate power is estimated by combining the powers for all correlator bins above the PN threshold. Pilot Delay and Delay Spread reported.

Top N Pilot Scan

Returns top N pilots in descending power ($N \leq 32$).

Extended Length Window Search for Pilot

User can select three different window search modes to look for a pilot:

Standard: Searching from 0 to 63 chips.

Wide: Searching in a 128 chips length window.

Very Wide: Searching in a 256 chips length window.

RSSI Scan

Measures and reports RSSI for a given channel list. The measurement bandwidth is selectable as either 30 kHz or 1.25 MHz. Tuning resolution matches band channelization.

Spectrum Analyzer

Measures and reports power spectral density. Frequency span in the RF Band, resolution bandwidth (5, 10, 20, 40, and 80 kHz), and sweep averaging (1, 2, 4, 8, and 16) are adjustable.

Temporal Analyzer (Zoomed Pilot) Scan

Returns correlator output points for specified pilot over up to 256 zoom window chip size.

Built-in GPS

The internal GPS receiver is controlled through a single RS-232 port.

Multi-Frequency Scans

Thousands of different concurrent measurements in different operational modes on different frequencies.

RSSI Frequency Scan

Measures and reports RSSI for a given frequency list. The measurement bandwidth is 30 kHz.

Distance Based Sampling Option

A cost-effective and user friendly approach in providing both model tuning and optimization capability in one tool. User can select distance that needs to be traveled in between two consecutive RSSI Frequency measurements in 30 kHz bandwidth.

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WCDMA
HSDPA
CDMA
EV-DO
CDMA Japan
GSM
GPRS
EDGE
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TECHNICAL SPECIFICATIONS

SeeGull® LX Dual Mode CDMA2000/EV-DO

Wireless Test Solutions

PCTEL, RF Solutions Group's Dual Mode CDMA2000/EV-DO scanning receiver enables wireless operators to simultaneously collect data on the performance of their CDMA and EV-DO networks in the 450, 850 and 1900 MHz bands.



CDMA2000/EV-DO Operational Modes

Top N Pilot Scan

Returns top N pilots in descending power ($N \leq 32$), Selectable Peak Ec/Io, Peak Ec and Aggregate Ec/Io. Peak is measured as the peak correlation within the PN window. Aggregate power is estimated by combining the powers for all correlator bins above the PN threshold. Pilot Delay and Delay Spread reported.

Pilot Scan (Up to 512 Pilots)

Provides the Aggregate and Peak Ec/Io, Peak Ec, Pilot Delay, and Delay Spread for each pilot in the list.

RSSI Scan

Measures and reports RSSI for a given channel list. The measurement bandwidth is selectable as either 30 kHz or 1.25 MHz. Tuning resolution matches band channelization.

RSSI Frequency Scan

Measures and reports RSSI for a given frequency list. The measurement bandwidth is 30 kHz.

Multi-Frequency Scans

Thousands of different concurrent measurements in different operational modes on different frequencies.

Temporal Analyzer (Zoomed Pilot) Scan

Returns correlator output points for specified pilot over up to 256 zoom window chip size.

Spectrum Analyzer

Measures and reports power spectral density. Frequency span in the RF Band, resolution bandwidth (5, 10, 20, 40, and 80 kHz), and sweep averaging (1, 2, 4, 8, and 16) are adjustable.

Built-in GPS

The internal GPS receiver is controlled through a single RS-232 port.

Distance Based Sampling Option

A cost-effective and user friendly approach in providing both model tuning and optimization capability in one tool. User can select distance that needs to be traveled in between two consecutive RSSI Frequency measurements in 30 kHz bandwidth.

CDMA2000 Only

Code Domain Scan Option

For each RF channel, Code Domain Scan allows the determination of where the signal energy is in the code-separated channels. Reports Ec/Io for each Code Channel in a Walsh Channel user list, selected from 0 to 127.

Layer 3 Support Option

Reports Sync Channel Message (SYNC) and Primary Paging Channel Parameters (includes Neighbor List Message (NLM), ENLM, SPM, ESPM, CCLM and ECCLM).

Network Synchronization Option

Measurements are made in areas without GPS for indefinite duration. User-Selectable modes:

- Sync Channel only (e.g. indoor/without GPS): measurements are relative to network timing
- GPS priority (e.g. when GPS is sometimes lost): measurements are absolute when GPS is present; when GPS is lost, Sync Channel automatically "kicks in"

EV-DO Only

Extended Length Window Search for Pilot

User can select three different window search modes to look for a pilot:

- Standard: Searching from 0 to 63 chips.
- Wide: Searching in a 128 chips length window.
- Very Wide: Searching in a 256 chips length window.

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WCDMA
HSDPA
CDMA
EV-DO
CDMA Japan
GSM
GPRS
EDGE
IS-136

TECHNICAL SPECIFICATIONS

SeeGull® LX CDMA2000 Receiver Japan Extended 800/2 GHz

Wireless Test Solutions



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ISO 9001:2000

WCDMA
HSDPA
CDMA
EV-DO
CDMA Japan
GSM
GPRS
EDGE
IS-136

PCTEL, RF Solutions Group's CDMA scanning receiver is a DSP-based software radio that provides unparalleled precision and user-defined options for the measurement of cdma2000 networks in both the Japan Extended 800 and 2GHz bands.

Operational Modes

Top N Pilot Scan

Returns top N pilots in descending power ($N \leq 32$). Selectable Peak Ec/Io, Peak Ec and Aggregate Ec/Io. Peak is measured as the peak correlation within the PN window. Aggregate power is estimated by combining the powers for all correlator bins above the PN threshold. Pilot Delay and Delay Spread reported.

Pilot Scan (Up to 512 Pilots)

Provides the aggregate and peak Ec/Io, Peak Ec, Pilot Delay, and Delay Spread for each pilot in the list.

Network Synchronization Option

Allows measurements to be made in areas without GPS for indefinite duration. User-selectable modes:

- Sync Channel only (e.g. indoor/without GPS): measurements are relative to network timing
- GPS priority (e.g. GPS is sometimes lost): when GPS present, measurements are absolute; when GPS is lost Sync Channel automatically "kicks in"

Built-in GPS

The internal GPS receiver is controlled through a single RS-232 port.

Temporal Analyzer (Zoomed Pilot) Scan

Returns correlator output points for specified pilot over a 256 chip window size.

RSSI Scan

Measures and reports RSSI for a given channel list. The measurement bandwidth is selectable as either 12.5 kHz or 1.25 MHz. Tuning resolution matches channelization.

Multi-Frequency Scans

Thousands of different concurrent measurements in different operational modes on different frequencies.

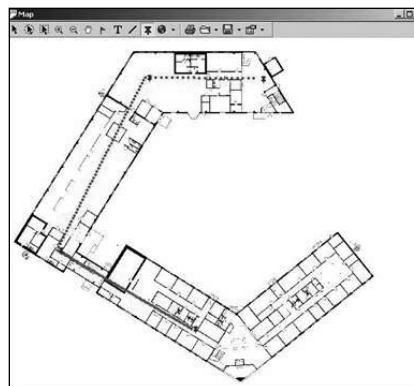
High-Stability Holdover Option

The Holdover mode allows for maintenance of CDMA timing for up to 4 hours when GPS signal is not present.

TECHNICAL SPECIFICATIONS

InSite® Indoor Kit

Wireless Test Solutions



CERTIFIED
ISO 9001:2000

Many wireless carriers now report that up to 80% of cellular usage is indoors.

Deployment of wireless data services is resulting in further increases in indoor traffic and coverage requirements. The measurement, enhancement and optimization of indoor coverage is now an increasingly important aspect of wireless engineering.

The PCTEL InSite Indoor Kit comprises a complete set of accessories that enable the indoor use of PCTEL SeeGull® scanners and the InSite Collection Solutions. The Indoor Kit provides a cost effective solution for evaluating existing in-building coverage and for planning, deploying and testing indoor coverage systems.

The PCTEL Indoor Kit provides the right solution for indoor "Walk Testing" that enables wireless engineers to address the three key steps of indoor coverage assessment and planning:

1. Evaluating Indoor Coverage from Outside Networks

The first step is to assess the coverage within the building from the existing external or "macro" wireless networks. The signal from outdoor networks that penetrates the building can be evaluated by collection or "Walk Testing" with the PCTEL Indoor Kit. This assessment of outdoor signal within the building is done to indicate the need for an indoor solution and to provide detail on the signal strength that will be required from an indoor coverage solution to ensure that users within the space are captured and served primarily by the indoor solution, minimizing dropped calls and soft hand-off.

2. Planning New In-Building Networks

After deciding to deploy an indoor network, the planning effort involves developing a distributed antenna solution that will deliver the required indoor coverage. The Indoor Kit delivers the ability to create an effective distributed antenna deployment plan by testing and validating coverage from various potential antenna locations.

3. Coverage Validation for New or Existing In-Building Networks

The coverage from existing indoor deployments is affected by a variety of influences and can vary over time due to changes in indoor design and changes to coverage from the outdoor network(s). Indoor coverage needs to be measured and confirmed both immediately after indoor solution deployment and then periodically thereafter in order to fine tune the system and maintain good service. The Indoor Kit enables operators to simultaneously measure the coverage from both indoor and outdoor networks and the interaction between them. As is always the case, measuring with scanners compliments phone measurement and testing. Phones indicate there are problems and scanners provide the detail and ideas on how to remedy the problems.

WCDMA
HSDPA
CDMA
EV-DO
CDMA Japan
GSM
GPRS
EDGE
IS-136

PRODUCT WARRANTY

A. GENERAL WARRANTY. PCTEL, Inc (“PCTEL”) represents and warrants that the Products furnished hereunder shall be free from defects in material and workmanship for a period of two (2) years from the date of shipment by PCTEL under normal use and operation. PCTEL sole and exclusive obligation under the foregoing warranty shall be to repair or replace, at its option, any defective Product that fails during the warranty period. The expense of removal and reinstallation of any item is not included in this warranty. THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND ANY WARRANTIES ARISING FROM A COURSE OF DEALING, USAGE OR TRADE PRACTICE WITH RESPECT TO THE PRODUCTS. Repair or replacement in the manner provided herein shall be the sole and exclusive remedy of Buyer for breach of warranty and shall constitute fulfillment of all liabilities of PCTEL with respect to the quality and performance of the Products. PCTEL reserves the right to inspect all defective Products (which must be returned by Buyer to PCTEL factory freight prepaid). No Products will be accepted for replacement or repair without obtaining a Return Materials Authorization (RMA) number from PCTEL Customer Service [by telephone: 630.372. 6800 or email: antenna.techsupport@pctel.com]. Products returned without an RMA number will not be processed and will be returned to Buyer freight collect. PCTEL shall have no obligation to make repairs or replacement necessitated by catastrophe, fault, negligence, misuse, abuse, or accident by Buyer, Buyer’s customers or any other parties. The warranty period of any repaired or replaced Product shall not extend beyond its original term.

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