Product Specifications

COMMSCOPE®

POWERED BY ANDREW®

LDF7-50A

LDF7-50A, HELIAX® Low Density Foam Coaxial Cable, corrugated copper, 1-5/8 in, black PE jacket

OBSOLETE

This product was discontinued on: October 1, 2013

Replaced By

AVA7-50	AVA7-50, HELIAX® Andrew Virtual Air™ Coaxial Cable, corrugated copper, 1-5/8 in, black PE jacket

Construction Materials

Jacket Material	PE
Outer Conductor Material	Corrugated copper
Dielectric Material	Foam PE
Flexibility	Standard
Inner Conductor Material	Corrugated copper tube
Jacket Color	Black

Dimensions

Nominal Size	1-5/8 in
Cable Weight	0.82 lb/ft | 1.22 kg/m
Diameter Over Dielectric	44.196 mm | 1.740 in
Diameter Over Jacket	49.784 mm | 1.960 in
Inner Conductor OD	17.2720 mm | 0.6800 in
Outer Conductor OD	46.482 mm | 1.830 in

Electrical Specifications

Cable Impedance	50 ohm ±1 ohm
Capacitance	23.1 pF/ft | 75.8 pF/m
dc Resistance, Inner Conductor	0.250 ohms/kft | 0.820 ohms/km
dc Resistance, Outer Conductor	0.160 ohms/kft | 0.525 ohms/km
dc Test Voltage	11000 V
Inductance	0.190 µH/m | 0.058 µH/ft
Insulation Resistance	100000 Mohms•km
Jacket Spark Test Voltage (rms)	10000 V
Operating Frequency Band	1 – 2700 MHz
Peak Power	315.0 kW
Velocity	88%

Environmental Specifications

Installation Temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Operating Temperature	-55 °C to +85 °C (-67 °F to +185 °F)
Storage Temperature	-70 °C to +60 °C (-94 °F to +140 °F)

Product Specifications

LDF7-50A

General Specifications

Brand	HELIAX®

Mechanical Specifications

Bending Moment	54.2 N-m | 40.0 ft lb
Flat Plate Crush Strength	120.0 lb/in | 2.1 kg/mm
Minimum Bend Radius, Multiple Bends	508.00 mm | 20.00 in
Minimum Bend Radius, Single Bend	203.20 mm | 8.00 in
Number of Bends, minimum	15
Number of Bends, typical	50
Tensile Strength	318 kg | 700 lb

Note

Performance Note	Values typical, unless otherwise stated

Standard Conditions

Attenuation, Ambient Temperature	20 °C | 68 °F
Average Power, Ambient Temperature	40 °C | 104 °F
Average Power, Inner Conductor Temperature	100 °C | 212 °F

Return Loss/VSWR

Frequency Band	VSWR	Return Loss (dB)
806–960 MHz	1.13	24.30
1700–2000 MHz	1.13	24.30

Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
0.5	0.044	0.014	247.25
1	0.063	0.019	174.46
1.5	0.077	0.024	142.22
2	0.089	0.027	122.99
10	0.202	0.062	54.32
20	0.289	0.088	38.05
30	0.356	0.109	30.85
50	0.465	0.142	23.63
88	0.627	0.191	17.53
100	0.671	0.205	16.38
108	0.699	0.213	15.72
150	0.834	0.254	13.17
174	0.904	0.276	12.15
200	0.976	0.297	11.26
300	1.22	0.372	9.01
400	1.433	0.437	7.67
450	1.532	0.467	7.17
500	1.627	0.496	6.76
512	1.649	0.503	6.67
600	1.806	0.55	6.09

700	1.974	0.602	5.57
800	2.134	0.65	5.15
824	2.171	0.662	5.06
894	2.278	0.694	4.83
960	2.376	0.724	4.63
1000	2.434	0.742	4.52
1250	2.781	0.848	3.95
1500	3.106	0.947	3.54
1700	3.354	1.022	3.28
1800	3.474	1.059	3.16
2000	3.709	1.131	2.96
2100	3.824	1.165	2.87
2200	3.937	1.2	2.79
2300	4.049	1.234	2.71
2500	4.267	1.301	2.58
2700	4.481	1.366	2.45

** Values typical, guaranteed within 5%*

Regulatory Compliance/Certifications

Agency	Classification
RoHS 2011/65/EU	Compliant
China RoHS SJ/T 11364-2006	Below Maximum Concentration Value (MCV)