

FXL-540



FXL-540, HELIAX® Flexible Coaxial Cable, smoothwall aluminum, 1/2 in, black PE jacket

Replaced By

LDF4-50A

LDF4-50A, HELIAX® Low Density Foam Coaxial Cable, corrugated copper, 1/2 in, black PE jacket (Halogen free jacketing non-fire-retardant)

Product Classification

Brand	HELIAX®
Product Series	FXL-540
Product Type	Coaxial wireless cable

Construction Materials

Jacket Material	PE
Outer Conductor Material	Smoothwall aluminum
Dielectric Material	Foam PE
Flexibility	Standard
Inner Conductor Material	Copper-clad aluminum wire
Jacket Color	Black

Dimensions

Nominal Size	1/2 in
Cable Weight	0.12 lb/ft 0.17 kg/m
Diameter Over Jacket	15.494 mm 0.610 in
Inner Conductor OD	0.1980 in 5.0300 mm
Outer Conductor OD	0.540 in 13.700 mm

Electrical Specifications

Cable Impedance	50 ohm ±1 ohm
Capacitance	23.1 pF/ft 75.8 pF/m
dc Resistance, Inner Conductor	0.420 ohms/kft 1.380 ohms/km
dc Resistance, Outer Conductor	0.630 ohms/kft 2.070 ohms/km
dc Test Voltage	2500 V
Inductance	0.190 µH/m 0.058 µH/ft
Insulation Resistance	100000 Mohms•km
Jacket Spark Test Voltage (rms)	5000 V
Operating Frequency Band	100 – 8800 MHz
Peak Power	41.8 kW

FXL-540

Velocity 88 %

Environmental Specifications

Installation Temperature -40 °C to +60 °C (-40 °F to +140 °F)
Operating Temperature -50 °C to +70 °C (-58 °F to +158 °F)
Storage Temperature -55 °C to +80 °C (-67 °F to +176 °F)

General Specifications

Ordering Note CommScope® non-standard product | Not available in the United States or Canada

Mechanical Specifications

Bending Moment 8.8 N-m | 6.5 ft lb
Flat Plate Crush Strength 1.7 kg/mm | 90.0 lb/in
Minimum Bend Radius, Multiple Bends 101.60 mm | 4.00 in
Minimum Bend Radius, Single Bend 50.80 mm | 2.00 in
Number of Bends, minimum 15
Tensile Strength 181 kg | 400 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)
680–960 MHz	1.13	24.30
1700–2000 MHz	1.13	24.30
2300–2700 MHz	1.13	24.30

Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
0.5	0.149	0.045	41.80
1	0.211	0.064	35.65
1.5	0.259	0.079	29.09
2	0.299	0.091	25.18
10	0.671	0.205	11.22
20	0.952	0.29	7.91
30	1.168	0.356	6.44
50	1.514	0.461	4.97
85	1.984	0.605	3.79
88	2.019	0.615	3.73
100	2.155	0.657	3.49
108	2.242	0.683	3.36
150	2.653	0.809	2.84
174	2.864	0.873	2.63
200	3.077	0.938	2.45
204	3.108	0.947	2.42
300	3.795	1.157	1.98
400	4.408	1.344	1.71
450	4.688	1.429	1.61
460	4.743	1.445	1.59
460	4.743	1.445	1.59
500	4.955	1.51	1.52
512	5.017	1.529	1.50
600	5.453	1.662	1.38
700	5.915	1.803	1.27
800	6.349	1.935	1.19
824	6.449	1.966	1.17
894	6.735	2.053	1.12
960	6.996	2.132	1.08
1000	7.15	2.179	1.05
1218	7.947	2.422	0.95
1250	8.058	2.456	0.93
1500	8.891	2.71	0.85
1700	9.516	2.9	0.79
1794	9.799	2.987	0.77
1800	9.817	2.992	0.77
2000	10.398	3.169	0.72
2100	10.68	3.255	0.70
2200	10.956	3.339	0.69
2300	11.227	3.422	0.67
2500	11.754	3.583	0.64
2700	12.265	3.738	0.61
3000	13.004	3.963	0.58
3400	13.945	4.25	0.54
3600	14.399	4.388	0.52

FXL-540

3700	14.622	4.456	0.51
3800	14.843	4.524	0.51
3900	15.061	4.59	0.50
4000	15.278	4.656	0.49
4100	15.492	4.722	0.49
4200	15.705	4.787	0.48
4300	15.915	4.851	0.47
4400	16.124	4.914	0.47
4500	16.33	4.977	0.46
4600	16.535	5.04	0.46
4700	16.739	5.102	0.45
4800	16.94	5.163	0.44
4900	17.141	5.224	0.44
5000	17.339	5.285	0.43
6000	19.25	5.867	0.39
8000	22.751	6.934	0.33
8800	24.062	7.334	0.31

* Values typical, guaranteed within 5%

Regulatory Compliance/Certifications

Agency

RoHS 2011/65/EU

ISO 9001:2015

China RoHS SJ/T 11364-2014

Classification

Compliant

Designed, manufactured and/or distributed under this quality management system

Above Maximum Concentration Value (MCV)

