

FXL-540-NHR

FXL-540, HELIAX® Flexible Coaxial Cable, smoothwall aluminum, 1/2 in, black non-halogenated, fire retardant, low smoke, riser rated polyolefin jacket



- This product is part of the CommScope Wired for Wireless® Solution

OBSOLETE

This product was discontinued on: May 17, 2017

Replaced By:

LDF4RK-50A	LDF4-50, HELIAX® Low Density Foam Coaxial Cable, corrugated copper, 1/2 in, black non-halogenated, fire retardant polyolefin jacket B2ca-s1a-d1,a1 (CPR testing is conducted annually please reference the website for latest classification)
LDF4RKD-50A	LDF4-50, HELIAX® Low Density Foam Coaxial Cable, corrugated copper, 1/2 in, black non-halogenated, fire retardant polyolefin jacket

Product Classification

Product Type	Coaxial wireless cable
Product Brand	HELIAX®
Product Series	FXL-540
Ordering Note	CommScope® non-standard product Not available in the United States or Canada

General Specifications

Flexibility	Flexible
Jacket Color	Black
Performance Note	Attenuation values typical, guaranteed within 5%

Dimensions

Diameter Over Jacket	50.292 mm 1.98 in
Inner Conductor OD	18 mm 0.709 in
Outer Conductor OD	47.6 mm 1.874 in
Nominal Size	1/2 in

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Electrical Specifications

Cable Impedance	50 ohm ±1 ohm
Capacitance	75.8 pF/m 23.104 pF/ft
dc Resistance, Inner Conductor	1.21 ohms/km 0.369 ohms/kft
dc Resistance, Outer Conductor	0.46 ohms/km 0.14 ohms/kft
dc Test Voltage	2500 V
Inductance	0.19 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
Velocity	88 %

VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
680–960 MHz	1.13	24.3
1700–2000 MHz	1.13	24.3
2300–2700 MHz	1.13	24.3

Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
100.0	2.155	0.657	3.49
108.0	2.242	0.683	3.36
150.0	2.653	0.809	2.84
174.0	2.864	0.873	2.63
200.0	3.077	0.938	2.45
204.0	3.108	0.947	2.42
300.0	3.795	1.157	1.98
400.0	4.408	1.344	1.71
450.0	4.688	1.429	1.61
460.0	4.743	1.445	1.59
500.0	4.955	1.51	1.52
512.0	5.017	1.529	1.5
600.0	5.453	1.662	1.38

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700.0	5.915	1.803	1.27
800.0	6.349	1.935	1.19
824.0	6.449	1.966	1.17
894.0	6.735	2.053	1.12
960.0	6.996	2.132	1.08
1000.0	7.15	2.179	1.05
1218.0	7.947	2.422	0.95
1250.0	8.058	2.456	0.93
1500.0	8.891	2.71	0.85
1700.0	9.516	2.9	0.79
1794.0	9.799	2.987	0.77
1800.0	9.817	2.992	0.77
2000.0	10.398	3.169	0.72
2100.0	10.68	3.255	0.7
2200.0	10.956	3.339	0.69
2300.0	11.227	3.422	0.67
2500.0	11.754	3.583	0.64
2700.0	12.265	3.738	0.61
3000.0	13.004	3.963	0.58
3400.0	13.945	4.25	0.54
3600.0	14.399	4.388	0.52
3700.0	14.622	4.456	0.51
3800.0	14.843	4.524	0.51
3900.0	15.061	4.59	0.5
4000.0	15.278	4.656	0.49
4100.0	15.492	4.722	0.49
4200.0	15.705	4.787	0.48
4300.0	15.915	4.851	0.47
4400.0	16.124	4.914	0.47
4500.0	16.33	4.977	0.46
4600.0	16.535	5.04	0.46
4700.0	16.739	5.102	0.45
4800.0	16.94	5.163	0.44
4900.0	17.141	5.224	0.44
5000.0	17.339	5.285	0.43

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6000.0	19.25	5.867	0.39
8000.0	22.751	6.934	0.33
8800.0	24.062	7.334	0.31

Material Specifications

Dielectric Material	Foam PE
Jacket Material	Non-halogenated, fire retardant polyolefin
Inner Conductor Material	Copper-clad aluminum wire
Outer Conductor Material	Smoothwall aluminum

Mechanical Specifications

Minimum Bend Radius, multiple Bends	203.2 mm 8 in
Minimum Bend Radius, single Bend	50.8 mm 2 in
Number of Bends, minimum	15
Tensile Strength	680 kg 1,499.142 lb
Bending Moment	208.8 N-m 1,848.036 in lb
Flat Plate Crush Strength	2.7 kg/mm 151.193 lb/in

Environmental Specifications

Installation temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Operating Temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Storage Temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Attenuation, Ambient Temperature	68 °F 20 °C
Average Power, Ambient Temperature	104 °F 40 °C
Average Power, Inner Conductor Temperature	212 °F 100 °C
Fire Retardancy Test Method	IEC 60332-3-24 UL 1666/CATVR/CMR
Smoke Index Test Method	IEC 61034
Toxicity Index Test Method	IEC 60754-1 IEC 60754-2

Packaging and Weights

Cable weight	1.23 kg/m 0.827 lb/ft
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Regulatory Compliance/Certifications

Agency	Classification
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ISO 9001:2015

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

UL/ETL Certification

CATVR/CMR

