



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-d0
LDF4RKD-50A	LDF4-50, HELIAX® Low Density Foam Coaxial Cable, corrugated copper, 1/2 in, black non-halogenated, fire retardant polyolefin jacket Dca-s1-d0

Product Classification

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

Construction Materials

Jacket Material	Non-halogenated, fire retardant polyolefin
Outer Conductor Material	Smoothwall aluminum
Dielectric Material	Foam PE
Flexibility	Flexible
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-NHR

Velocity 88%

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)

General Specifications

Brand	HELIAX®
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
Fire Retardancy Test Method	IEC 60332-3-24 UL 1666/CATVR/CMR
Flat Plate Crush Strength	1.7 kg/mm 90.0 lb/in
Minimum Bend Radius, Multiple Bends	203.20 mm 8.00 in
Minimum Bend Radius, Single Bend	50.80 mm 2.00 in
Number of Bends, minimum	15
Smoke Index Test Method	IEC 61034
Tensile Strength	181 kg 400 lb
Toxicity Index Test Method	IEC 60754-1 IEC 60754-2

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

FXL-540-NHR

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
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
3700	14.622	4.456	0.51
4000	15.278	4.656	0.49
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

Product Specifications

FXL-540-NHR

Agency

UL/ETL Certification
ISO 9001:2008

Classification

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