

FXL-780

FXL-780, HELIAX® Flexible Coaxial Cable, smoothwall aluminum, 7/8 in, black PE jacket



OBSOLETE

This product was discontinued on: December 31, 2017

Replaced By:

AVA5-50	AVA5-50, HELIAX® Andrew Virtual Air™ Coaxial Cable, corrugated copper, 7/8 in, black PE jacket (Halogen free jacketing non-fire-retardant)
AVA5-50FX	AVA5-50FX, HELIAX® Andrew Virtual Air™ Coaxial Cable, corrugated copper, 7/8 in, black PE jacket (Halogen free jacketing non-fire-retardant)

Product Classification

Product Type	Coaxial wireless cable
Product Brand	HELIAX®
Product Series	FXL-780
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	7/8 in

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Electrical Specifications

Cable Impedance	50 ohm ±1 ohm
Capacitance	75.4 pF/m 22.982 pF/ft
dc Resistance, Inner Conductor	1.21 ohms/km 0.369 ohms/kft
dc Resistance, Outer Conductor	0.56 ohms/km 0.171 ohms/kft
dc Test Voltage	6000 V
Inductance	0.194 µH/m 0.059 µH/ft
Insulation Resistance	100000 MOhms-km
Jacket Spark Test Voltage (rms)	8000 V
Operating Frequency Band	100 – 5300 MHz
Peak Power	86 kW
Velocity	88 %

Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
100.0	1.152	0.351	5.95
108.0	1.198	0.365	5.72
150.0	1.42	0.433	4.83
174.0	1.534	0.468	4.47
200.0	1.65	0.503	4.15
204.0	1.667	0.508	4.11
300.0	2.041	0.622	3.36
400.0	2.377	0.724	2.88
450.0	2.53	0.771	2.71
460.0	2.56	0.78	2.68
500.0	2.677	0.816	2.56
512.0	2.711	0.826	2.53
600.0	2.951	0.899	2.32
700.0	3.207	0.977	2.14
800.0	3.447	1.051	1.99
824.0	3.503	1.068	1.96
894.0	3.662	1.116	1.87
960.0	3.807	1.16	1.8
1000.0	3.893	1.186	1.76

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1218.0	4.338	1.322	1.58
1250.0	4.401	1.341	1.56
1500.0	4.869	1.484	1.41
1700.0	5.221	1.591	1.31
1794.0	5.381	1.64	1.27
1800.0	5.391	1.643	1.27
2000.0	5.721	1.744	1.2
2100.0	5.88	1.792	1.17
2200.0	6.037	1.84	1.14
2300.0	6.192	1.887	1.11
2500.0	6.493	1.979	1.06
2700.0	6.785	2.068	1.01
3000.0	7.209	2.197	0.95
3400.0	7.75	2.362	0.88
3600.0	8.012	2.442	0.86
3700.0	8.141	2.481	0.84
3800.0	8.269	2.52	0.83
3900.0	8.395	2.559	0.82
4000.0	8.521	2.597	0.8
4100.0	8.645	2.635	0.79
4200.0	8.768	2.672	0.78
4300.0	8.89	2.71	0.77
4400.0	9.012	2.747	0.76
4500.0	9.132	2.783	0.75
4600.0	9.251	2.82	0.74
4700.0	9.37	2.856	0.73
4800.0	9.488	2.892	0.72
4900.0	9.604	2.927	0.71
5000.0	9.72	2.963	0.71

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

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Material Specifications

Dielectric Material	Foam PE
Jacket Material	PE
Inner Conductor Material	Copper
Outer Conductor Material	Smoothwall aluminum

Mechanical Specifications

Minimum Bend Radius, multiple Bends	444.5 mm 17.5 in
Minimum Bend Radius, single Bend	127 mm 5 in
Number of Bends, minimum	15
Tensile Strength	680 kg 1,499.142 lb
Bending Moment	149.1 N-m 1,319.646 in lb
Flat Plate Crush Strength	3.9 kg/mm 218.39 lb/in

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

Packaging and Weights

Cable weight	1 kg/m 0.672 lb/ft
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Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant

