

# FXL-780-NHR

FXL-780, HELIAX® Flexible Coaxial Cable, smoothwall aluminum, 7/8 in, black non-halogenated, fire retardant, low smoke, riser rated polyolefin 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)
AVA5RK-50	AVA5RK-50, HELIAX® Andrew Virtual Air™ Coaxial Cable, corrugated copper, 7/8 in, black non-halogenated, fire retardant polyolefin jacket B2ca- s1a, d2,a1 (CPR testing is conducted annually please reference the website for latest classification)
AVA5RKD-50	AVA5-50, HELIAX® Andrew Virtual Air™ Coaxial Cable, corrugated copper, 7/8 in, black non-halogenated, fire retardant polyolefin jacket

## Product Classification

<b>Product Type</b>	Coaxial wireless cable
<b>Product Brand</b>	HELIAX®
<b>Product Series</b>	FXL-780
<b>Ordering Note</b>	CommScope® non-standard product   Not available in the United States or Canada

## General Specifications

<b>Flexibility</b>	Flexible
<b>Jacket Color</b>	Black
<b>Performance Note</b>	Attenuation values typical, guaranteed within 5%

## Dimensions

<b>Diameter Over Jacket</b>	27.7 mm   1.091 in
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# FXL-780-NHR

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<b>Inner Conductor OD</b>	9.5 mm   0.374 in
<b>Outer Conductor OD</b>	25.527 mm   1.005 in
<b>Nominal Size</b>	7/8 in

## Electrical Specifications

<b>Cable Impedance</b>	50 ohm ±1 ohm
<b>Capacitance</b>	75 pF/m   22.86 pF/ft
<b>dc Resistance, Inner Conductor</b>	3.3 ohms/km   1.006 ohms/kft
<b>dc Resistance, Outer Conductor</b>	1.15 ohms/km   0.351 ohms/kft
<b>dc Test Voltage</b>	6000 V
<b>Inductance</b>	0.19 µH/m   0.058 µH/ft
<b>Insulation Resistance</b>	100000 MOhms-km
<b>Jacket Spark Test Voltage (rms)</b>	8000 V
<b>Operating Frequency Band</b>	100 – 5300 MHz
<b>Peak Power</b>	86 kW
<b>Velocity</b>	88 %

## Attenuation

<b>Frequency (MHz)</b>	<b>Attenuation (dB/100 m)</b>	<b>Attenuation (dB/100 ft)</b>	<b>Average Power (kW)</b>
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

# FXL-780-NHR

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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
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

## Material Specifications

**Dielectric Material**

Foam PE

# FXL-780-NHR

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<b>Jacket Material</b>	Non-halogenated, fire retardant polyolefin
<b>Inner Conductor Material</b>	Copper
<b>Outer Conductor Material</b>	Smoothwall aluminum

## Mechanical Specifications

<b>Minimum Bend Radius, multiple Bends</b>	203.2 mm   8 in
<b>Minimum Bend Radius, single Bend</b>	127 mm   5 in
<b>Number of Bends, minimum</b>	8
<b>Tensile Strength</b>	249 kg   548.95 lb
<b>Bending Moment</b>	35 N-m   309.776 in lb
<b>Flat Plate Crush Strength</b>	3 kg/mm   167.992 lb/in

## Environmental Specifications

<b>Installation temperature</b>	-40 °C to +60 °C (-40 °F to +140 °F)
<b>Operating Temperature</b>	-40 °C to +60 °C (-40 °F to +140 °F)
<b>Storage Temperature</b>	-40 °C to +60 °C (-40 °F to +140 °F)
<b>Attenuation, Ambient Temperature</b>	68 °F   20 °C
<b>Average Power, Ambient Temperature</b>	104 °F   40 °C
<b>Average Power, Inner Conductor Temperature</b>	212 °F   100 °C
<b>EN50575 CPR Cable EuroClass Fire Performance</b>	Dca
<b>EN50575 CPR Cable EuroClass Smoke Rating</b>	s2
<b>EN50575 CPR Cable EuroClass Droplets Rating</b>	d2
<b>Fire Retardancy Test Method</b>	IEC 60332-3-24   UL 1666/CATVR/CMR
<b>Smoke Index Test Method</b>	IEC 61034
<b>Toxicity Index Test Method</b>	IEC 60754-1   IEC 60754-2

## Packaging and Weights

<b>Cable weight</b>	0.37 kg/m   0.249 lb/ft
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## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
CENELEC	EN 50575 compliant, Declaration of Performance (DoP) available
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
UL/ETL Certification	CATVR/CMR

# FXL-780-NHR

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