

CR-1070-NHR

CR-1070, Cell Reach® Standard Coaxial Cable, smoothwall copper, 7/8 in, black non-halogenated, fire retardant, riser rated polyolefin jacket

OBSOLETE

Replaced By:

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
FXL-780-RR-(CERN-ONLY)	FXL-780, HELIAX® Flexible Coaxial Cable, smooth-wall aluminum, 7/8 in coaxial cable with CERN IS23 approved black, halogen free, fire retardant jacket having enhanced radiation resistance. (RI=5.7, IEC544)

Product Classification

Product Type	Coaxial wireless cable
Product Brand	Cell Reach®
Product Series	CR

General Specifications

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

Dimensions

Diameter Over Dielectric	26.67 mm 1.05 in
Diameter Over Jacket	29.5 mm 1.161 in
Inner Conductor OD	10.1 mm 0.398 in
Outer Conductor OD	27.2 mm 1.071 in
Nominal Size	7/8 in

Electrical Specifications

Cable Impedance	50 ohm ±1 ohm
Capacitance	78.9 pF/m 24.049 pF/ft
dc Resistance, Inner Conductor	2.69 ohms/km 0.82 ohms/kft
dc Resistance, Outer Conductor	2.79 ohms/km 0.85 ohms/kft

CR-1070-NHR

dc Test Voltage	6000 V
Inductance	0.19 μ H/m 0.058 μ H/ft
Jacket Spark Test Voltage (rms)	8000 V
Operating Frequency Band	100 – 5000 MHz
Peak Power	108 kW
Velocity	88 %

VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
30–2500 MHz	1.101	26.36

Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
100.0	1.04	0.317
108.0	1.08	0.329
150.0	1.28	0.391
174.0	1.39	0.425
200.0	1.51	0.459
300.0	1.86	0.568
400.0	2.18	0.665
450.0	2.33	0.71
500.0	2.47	0.754
512.0	2.5	0.762
600.0	2.74	0.834
700.0	2.99	0.91
800.0	3.21	0.979
824.0	3.27	0.997
894.0	3.42	1.04
960.0	3.57	1.09
1000.0	3.66	1.11
1700.0	4.99	1.52
1800.0	5.17	1.58
1900.0	5.35	1.63
2000.0	5.51	1.68
2300.0	6.01	1.83

CR-1070-NHR

2400.0	6.2	1.89
2500.0	6.39	1.95
3000.0	7.04	2.15
4000.0	8.43	2.57
5000.0	9.84	3

Material Specifications

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

Mechanical Specifications

Minimum Bend Radius, multiple Bends	88.9 mm 3.5 in
Minimum Bend Radius, single Bend	203.2 mm 8 in
Number of Bends, minimum	15
Tensile Strength	113 kg 249.122 lb
Bending Moment	2.7 N-m 23.897 in lb
Flat Plate Crush Strength	1.7 kg/mm 95.196 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	0.1 kg/m 0.067 lb/ft
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