

EFX2RN-50



EFX2-50, HELIAX® Extraflexible Foam Coaxial Cable, corrugated copper, 3/8 in, gray non-halogenated, fire retardant polyolefin jacket

OBSOLETE

This product was discontinued on: February 5, 2007

Product Classification

Product Type	Coaxial wireless cable
Product Brand	HELIAX®
Product Series	EFX2-50

General Specifications

Flexibility	Extraflexible
Jacket Color	Gray
Performance Note	Attenuation values typical, guaranteed within 5%

Dimensions

Diameter Over Dielectric	8.636 mm 0.34 in
Diameter Over Jacket	11.176 mm 0.44 in
Inner Conductor OD	3.048 mm 0.12 in
Outer Conductor OD	9.652 mm 0.38 in
Nominal Size	3/8 in

Electrical Specifications

Cable Impedance	50 ohm ±1 ohm
Capacitance	79.1 pF/m 24.11 pF/ft
dc Resistance, Inner Conductor	3.609 ohms/km 1.1 ohms/kft
dc Resistance, Outer Conductor	3.019 ohms/km 0.92 ohms/kft

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dc Test Voltage	2500 V
Inductance	0.197 μ H/m 0.06 μ H/ft
Insulation Resistance	100000 MOhms-km
Jacket Spark Test Voltage (rms)	4000 V
Operating Frequency Band	1 – 13500 MHz
Peak Power	15.6 kW
Velocity	85 %

Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
1.0	0.345	0.105	15.6
1.5	0.423	0.129	15.6
2.0	0.488	0.149	15.6
10.0	1.098	0.335	7.02
20.0	1.56	0.476	4.94
30.0	1.918	0.584	4.02
50.0	2.489	0.759	3.1
85.0	3.269	0.996	2.36
88.0	3.328	1.014	2.32
100.0	3.555	1.084	2.17
108.0	3.7	1.128	2.08
150.0	4.387	1.337	1.76
174.0	4.74	1.445	1.63
200.0	5.098	1.554	1.51
204.0	5.151	1.57	1.5
300.0	6.31	1.923	1.22
400.0	7.35	2.24	1.05
450.0	7.827	2.386	0.99
460.0	7.919	2.414	0.97
500.0	8.281	2.524	0.93
512.0	8.387	2.556	0.92
600.0	9.134	2.784	0.84
700.0	9.928	3.026	0.78
800.0	10.675	3.254	0.72
824.0	10.849	3.307	0.71

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894.0	11.343	3.457	0.68
960.0	11.795	3.595	0.65
1000.0	12.062	3.676	0.64
1218.0	13.449	4.099	0.57
1250.0	13.644	4.158	0.57
1500.0	15.102	4.603	0.51
1700.0	16.201	4.938	0.48
1794.0	16.7	5.09	0.46
1800.0	16.732	5.1	0.46
2000.0	17.76	5.413	0.43
2100.0	18.259	5.565	0.42
2200.0	18.749	5.714	0.41
2300.0	19.231	5.861	0.4
2500.0	20.172	6.148	0.38
2700.0	21.086	6.427	0.37
3000.0	22.41	6.83	0.34
3400.0	24.105	7.347	0.32
3600.0	24.925	7.597	0.31
3700.0	25.329	7.72	0.3
3800.0	25.729	7.842	0.3
3900.0	26.126	7.963	0.3
4000.0	26.519	8.083	0.29
4100.0	26.909	8.201	0.29
4200.0	27.295	8.319	0.28
4300.0	27.678	8.436	0.28
4400.0	28.059	8.552	0.27
4500.0	28.436	8.667	0.27
4600.0	28.81	8.781	0.27
4700.0	29.182	8.894	0.26
4800.0	29.551	9.007	0.26
4900.0	29.918	9.118	0.26
5000.0	30.281	9.229	0.25
6000.0	33.798	10.301	0.23
8000.0	40.31	12.286	0.19
8800.0	42.768	13.035	0.18

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10000.0	46.332	14.121	0.17
12000.0	52.006	15.851	0.15

Material Specifications

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

Mechanical Specifications

Minimum Bend Radius, multiple Bends	44.45 mm 1.75 in
Minimum Bend Radius, single Bend	44.45 mm 1.75 in
Number of Bends, minimum	15
Number of Bends, typical	20
Tensile Strength	79 kg 174.165 lb
Bending Moment	2.3 N-m 20.357 in lb
Flat Plate Crush Strength	2.1 kg/mm 117.595 lb/in

Environmental Specifications

Installation temperature	-25 °C to +60 °C (-13 °F to +140 °F)
Operating Temperature	-30 °C to +80 °C (-22 °F to +176 °F)
Storage Temperature	-30 °C to +80 °C (-22 °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
Fire Retardancy Test Method	UL 1666/CATVR
Smoke Index Test Method	IEC 61034
Toxicity Index Test Method	IEC 60754-1 IEC 60754-2

Packaging and Weights

Cable weight	0.15 kg/m 0.101 lb/ft
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Regulatory Compliance/Certifications

Agency	Classification
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UL/ETL Certification

CATVP and CATVR

