

EFX2RN-50



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

OBSOLETE

Product Classification

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

Construction Materials

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

Dimensions

Nominal Size	3/8 in
Cable Weight	0.10 lb/ft 0.15 kg/m
Diameter Over Dielectric	8.636 mm 0.340 in
Diameter Over Jacket	11.176 mm 0.440 in
Inner Conductor OD	3.0480 mm 0.1200 in
Outer Conductor OD	9.652 mm 0.380 in

Electrical Specifications

Cable Impedance	50 ohm \pm 1 ohm
Capacitance	24.1 pF/ft 79.1 pF/m
dc Resistance, Inner Conductor	1.100 ohms/kft 3.609 ohms/km
dc Resistance, Outer Conductor	0.920 ohms/kft 3.019 ohms/km

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dc Test Voltage	2500 V
Inductance	0.197 μ H/m 0.060 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 %

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)

Mechanical Specifications

Bending Moment	2.3 N-m 1.7 ft lb
Fire Retardancy Test Method	UL 1666/CATVR
Flat Plate Crush Strength	120.0 lb/in 2.1 kg/mm
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
Smoke Index Test Method	IEC 61034
Tensile Strength	79 kg 175 lb
Toxicity Index Test Method	IEC 60754-1 IEC 60754-2

Note

Performance Note	Values typical, unless otherwise stated
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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

Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
0.5	0.244	0.074	15.60
1	0.345	0.105	15.60
1.5	0.423	0.129	15.60
2	0.488	0.149	15.60
10	1.098	0.335	7.02
20	1.56	0.476	4.94
30	1.918	0.584	4.02
50	2.489	0.759	3.10
85	3.269	0.996	2.36
88	3.328	1.014	2.32
100	3.555	1.084	2.17
108	3.7	1.128	2.08
150	4.387	1.337	1.76
174	4.74	1.445	1.63
200	5.098	1.554	1.51
204	5.151	1.57	1.50
300	6.31	1.923	1.22
400	7.35	2.24	1.05
450	7.827	2.386	0.99
460	7.919	2.414	0.97
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500	8.281	2.524	0.93
512	8.387	2.556	0.92
600	9.134	2.784	0.84
700	9.928	3.026	0.78
800	10.675	3.254	0.72
824	10.849	3.307	0.71
894	11.343	3.457	0.68
960	11.795	3.595	0.65
1000	12.062	3.676	0.64
1218	13.449	4.099	0.57
1250	13.644	4.158	0.57
1500	15.102	4.603	0.51
1700	16.201	4.938	0.48
1794	16.7	5.09	0.46
1800	16.732	5.1	0.46
2000	17.76	5.413	0.43
2100	18.259	5.565	0.42
2200	18.749	5.714	0.41
2300	19.231	5.861	0.40
2500	20.172	6.148	0.38
2700	21.086	6.427	0.37
3000	22.41	6.83	0.34
3400	24.105	7.347	0.32
3600	24.925	7.597	0.31

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3700	25.329	7.72	0.30
3800	25.729	7.842	0.30
3900	26.126	7.963	0.30
4000	26.519	8.083	0.29
4100	26.909	8.201	0.29
4200	27.295	8.319	0.28
4300	27.678	8.436	0.28
4400	28.059	8.552	0.27
4500	28.436	8.667	0.27
4600	28.81	8.781	0.27
4700	29.182	8.894	0.26
4800	29.551	9.007	0.26
4900	29.918	9.118	0.26
5000	30.281	9.229	0.25
6000	33.798	10.301	0.23
8000	40.31	12.286	0.19
8800	42.768	13.035	0.18
10000	46.332	14.121	0.17
12000	52.006	15.851	0.15

* Values typical, guaranteed within 5%

Regulatory Compliance/Certifications

Agency

UL/ETL Certification

Classification

CATVP and CATVR

