Product Specifications

COMMSCOPE®

on the go

Andrew Solutions

SFX-500

SFX-500, HELIAX® Superflexible Coaxial Cable, smoothwall aluminum, 1/2 in, black PE jacket

Construction Materials

Jacket Material	PE
Outer Conductor Material	Smoothwall aluminum
Dielectric Material	Foam PE
Flexibility	Superflexible
Inner Conductor Material	Copper-clad aluminum wire
Jacket Color	Black

Dimensions

Nominal Size	1/2 in
Cable Weight	0.10 kg/m | 0.07 lb/ft
Diameter Over Jacket	11.430 mm | 0.450 in
Inner Conductor OD	0.1400 in | 3.5600 mm
Outer Conductor OD	0.396 in | 10.100 mm

Electrical Specifications

Cable Impedance	50 ohm ±1 ohm
Capacitance	24.2 pF/ft | 78.9 pF/m
dc Resistance, Inner Conductor	0.820 ohms/kft | 2.690 ohms/km
dc Resistance, Outer Conductor	0.850 ohms/kft | 2.790 ohms/km
dc Test Voltage	2500 V
Inductance	0.190 µH/m | 0.058 µH/ft
Insulation Resistance	100000 Mohms•km
Jacket Spark Test Voltage (rms)	5000 V
Operating Frequency Band	100 – 12000 MHz
Peak Power	15.6 kW
Velocity	87%

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)

General Specifications

Brand	HELIAX®

Mechanical Specifications

Bending Moment	2.7 N-m | 2.0 ft lb
Flat Plate Crush Strength	1.7 kg/mm | 95.0 lb/in

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Minimum Bend Radius, Multiple Bends	88.90 mm | 3.50 in
Minimum Bend Radius, Single Bend	31.75 mm | 1.25 in
Number of Bends, minimum	20
Tensile Strength	113 kg | 250 lb

Note

Performance Note	Values typical, unless otherwise stated

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

Return Loss/VSWR

Frequency Band	VSWR	Return Loss (dB)
800–960 MHz	1.10	26.40
1700–2000 MHz	1.10	26.40
2300–2500 MHz	1.10	26.40

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Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
0.5	0.222	0.068	15.60
1	0.314	0.096	15.60
1.5	0.385	0.117	15.60
2	0.445	0.136	15.60
10	0.998	0.304	8.65
20	1.414	0.431	6.10
30	1.735	0.529	4.98
50	2.246	0.685	3.84
88	2.991	0.912	2.89
100	3.191	0.973	2.70
108	3.319	1.011	2.60
150	3.923	1.196	2.20
174	4.231	1.29	2.04
200	4.544	1.385	1.90
300	5.593	1.705	1.54
400	6.486	1.977	1.33
450	6.893	2.101	1.25
500	7.279	2.219	1.19
512	7.369	2.246	1.17
600	8.001	2.439	1.08
700	8.669	2.642	1.00
800	9.295	2.833	0.93
824	9.439	2.877	0.91
894	9.85	3.002	0.88
960	10.225	3.116	0.84
1000	10.446	3.184	0.83
1250	11.748	3.581	0.73
1500	12.937	3.943	0.67
1700	13.826	4.214	0.62
1800	14.253	4.344	0.61
2000	15.077	4.595	0.57
2100	15.476	4.717	0.56
2200	15.866	4.836	0.54
2300	16.249	4.952	0.53
2500	16.993	5.179	0.51
2700	17.713	5.399	0.49
3000	18.751	5.715	0.46
3400	20.069	6.117	0.43
3700	21.015	6.405	0.41
4000	21.929	6.684	0.39
5000	24.792	7.556	0.35
6000	27.429	8.36	0.31
8000	32.228	9.823	0.27
8800	34.013	10.367	0.25
10000	36.579	11.149	0.24
12000	40.612	12.378	0.21

** Values typical, guaranteed within 5%*

Regulatory Compliance/Certifications

Agency	Classification
ISO 9001:2008	Designed, manufactured and/or distributed under this quality management system

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