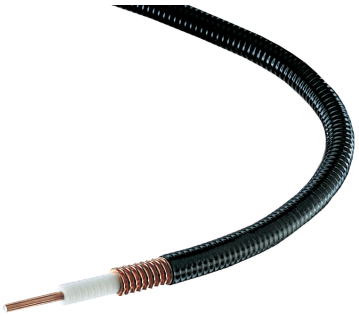
FSJ4-50B



FSJ4-50B, HELIAX® Superflexible Foam Coaxial Cable, corrugated copper, 1/2 in, black PE jacket (Halogen free jacketing non-fire-retardant)

Product Classification

Brand	HELIAX® | SureFlex®
Product Series	FSJ4-50B
Product Type	Coaxial wireless cable

Standards And Qualifications

EN50575 CPR Cable EuroClass	Fca

Construction Materials

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

Dimensions

Nominal Size	1/2 in
Cable Weight	0.14 lb/ft | 0.21 kg/m
Diameter Over Dielectric	8.890 mm | 0.350 in
Diameter Over Jacket	13.462 mm | 0.530 in
Inner Conductor OD	3.5560 mm | 0.1400 in
Outer Conductor OD	12.192 mm | 0.480 in

Electrical Specifications

Cable Impedance	50 ohm ±1 ohm
Capacitance	25.2 pF/ft | 82.7 pF/m
dc Resistance, Inner Conductor	0.820 ohms/kft | 2.690 ohms/km
dc Resistance, Outer Conductor	1.560 ohms/kft | 5.120 ohms/km
dc Test Voltage	2500 V

Inductance	0.207 µH/m | 0.063 µH/ft
Insulation Resistance	100000 Mohms•km
Jacket Spark Test Voltage (rms)	5000 V
Operating Frequency Band	1 – 10200 MHz
Peak Power	22.5 kW
Velocity	81%

Environmental Specifications

Installation Temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Operating Temperature	-55 °C to +85 °C (-67 °F to +185 °F)
Storage Temperature	-70 °C to +85 °C (-94 °F to +185 °F)

General Specifications

Ordering Note	CommScope® standard product (Global)

Mechanical Specifications

Bending Moment	2.7 N-m | 2.0 ft lb
Flat Plate Crush Strength	110.0 lb/in | 2.0 kg/mm
Minimum Bend Radius, Multiple Bends	31.75 mm | 1.25 in
Minimum Bend Radius, Single Bend	31.75 mm | 1.25 in
Number of Bends, minimum	20
Tensile Strength	79 kg | 175 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)
680–800 MHz	1.2	20.80
800–960 MHz	1.2	20.80
1700–2200 MHz	1.2	20.80
2300–2700 MHz	1.2	20.80

Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
0.5	0.231	0.07	22.50
1	0.327	0.1	22.50
1.5	0.401	0.122	22.50
2	0.463	0.141	22.50
10	1.044	0.318	10.14
20	1.485	0.453	7.12
30	1.828	0.557	5.79
50	2.377	0.724	4.45
85	3.13	0.954	3.38
88	3.187	0.971	3.32
100	3.406	1.038	3.11
108	3.546	1.081	2.98
150	4.214	1.285	2.51
174	4.558	1.389	2.32
200	4.908	1.496	2.16
204	4.96	1.512	2.13
300	6.095	1.858	1.74
400	7.121	2.17	1.49
450	7.592	2.314	1.39
460	7.684	2.342	1.38
460	7.684	2.342	1.38
500	8.042	2.451	1.32
512	8.148	2.483	1.30
600	8.891	2.71	1.19
700	9.683	2.951	1.09
800	10.431	3.179	1.01
824	10.605	3.232	1.00
894	11.101	3.383	0.95
960	11.555	3.522	0.92
1000	11.824	3.604	0.89
1218	13.226	4.031	0.80
1250	13.423	4.091	0.79
1500	14.906	4.543	0.71
1700	16.027	4.885	0.66
1794	16.537	5.04	0.64
1800	16.57	5.05	0.64
2000	17.624	5.371	0.60
2100	18.137	5.528	0.58
2200	18.641	5.682	0.57
2300	19.138	5.833	0.55
2500	20.11	6.129	0.53
2700	21.056	6.418	0.50
3000	22.432	6.837	0.47
3400	24.198	7.375	0.44
3700	25.478	7.765	0.42

3800	25.898	7.893	0.41
4000	26.727	8.146	0.40
5000	30.693	9.355	0.34
6000	34.427	10.493	0.31
8000	41.403	12.619	0.26
8800	44.054	13.427	0.24
10000	47.914	14.604	0.22

** Values typical, guaranteed within 5%*

Regulatory Compliance/Certifications

Agency	Classification
RoHS 2011/65/EU	Compliant
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
CENELEC	EN 50575 compliant, Declaration of Performance (DoP) available
China RoHS SJ/T 11364-2014	Above Maximum Concentration Value (MCV)