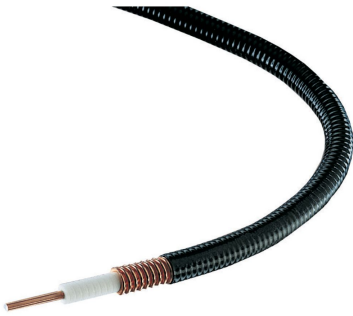


FSJ4P-50B-42



FSJ4-50B, HELIAX® Superflexible Foam Premium Coaxial Cable, corrugated copper, 1/2 in, black PE jacket

Product Classification

Product Type	Coaxial wireless cable
Product Brand	HELIAX® SureFlex®
Product Series	FSJ4-50B
Ordering Note	CommScope® standard product in Europe, the Middle East, and Africa

General Specifications

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

Dimensions

Diameter Over Dielectric	8.89 mm 0.35 in
Diameter Over Jacket	13.462 mm 0.53 in
Inner Conductor OD	3.556 mm 0.14 in
Outer Conductor OD	12.192 mm 0.48 in
Nominal Size	1/2 in

Electrical Specifications

Cable Impedance	50 ohm ±1 ohm
Capacitance	82.7 pF/m 25.207 pF/ft
dc Resistance, Inner Conductor	2.69 ohms/km 0.82 ohms/kft
dc Resistance, Outer Conductor	5.12 ohms/km 1.561 ohms/kft
dc Test Voltage	2500 V
Inductance	0.207 µH/m 0.063 µH/ft

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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 %

VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
450–680 MHz	1.101	26.36
680–800 MHz	1.101	26.36
806–960 MHz	1.101	26.36
1700–2200 MHz	1.101	26.36

Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
1.0	0.327	0.1	22.5
1.5	0.401	0.122	22.5
2.0	0.463	0.141	22.5
10.0	1.044	0.318	10.14
20.0	1.485	0.453	7.12
30.0	1.828	0.557	5.79
50.0	2.377	0.724	4.45
85.0	3.13	0.954	3.38
88.0	3.187	0.971	3.32
100.0	3.406	1.038	3.11
108.0	3.546	1.081	2.98
150.0	4.214	1.285	2.51
174.0	4.558	1.389	2.32
200.0	4.908	1.496	2.16
204.0	4.96	1.512	2.13
300.0	6.095	1.858	1.74
400.0	7.121	2.17	1.49
450.0	7.592	2.314	1.39
460.0	7.684	2.342	1.38
500.0	8.042	2.451	1.32

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512.0	8.148	2.483	1.3
600.0	8.891	2.71	1.19
700.0	9.683	2.951	1.09
800.0	10.431	3.179	1.01
824.0	10.605	3.232	1
894.0	11.101	3.383	0.95
960.0	11.555	3.522	0.92
1000.0	11.824	3.604	0.89
1218.0	13.226	4.031	0.8
1250.0	13.423	4.091	0.79
1500.0	14.906	4.543	0.71
1700.0	16.027	4.885	0.66
1794.0	16.537	5.04	0.64
1800.0	16.57	5.05	0.64
2000.0	17.624	5.371	0.6
2100.0	18.137	5.528	0.58
2200.0	18.641	5.682	0.57
2300.0	19.138	5.833	0.55
2500.0	20.11	6.129	0.53
2700.0	21.056	6.418	0.5
3000.0	22.432	6.837	0.47
3400.0	24.198	7.375	0.44
3600.0	25.055	7.636	0.42
3700.0	25.478	7.765	0.42
3800.0	25.898	7.893	0.41
3900.0	26.314	8.02	0.4
4000.0	26.727	8.146	0.4
4100.0	27.136	8.271	0.39
4200.0	27.542	8.394	0.38
4300.0	27.946	8.517	0.38
4400.0	28.346	8.639	0.37
4500.0	28.744	8.761	0.37
4600.0	29.139	8.881	0.36
4700.0	29.531	9.001	0.36
4800.0	29.921	9.119	0.35

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4900.0	30.308	9.238	0.35
5000.0	30.693	9.355	0.34
6000.0	34.427	10.493	0.31
8000.0	41.403	12.619	0.26
8800.0	44.054	13.427	0.24
10000.0	47.914	14.603	0.22

Material Specifications

Dielectric Material	Foam PE
Jacket Material	PE
Inner Conductor Material	Copper-clad aluminum wire
Outer Conductor Material	Corrugated copper

Mechanical Specifications

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
Number of Bends, typical	50
Tensile Strength	79 kg 174.165 lb
Bending Moment	2.7 N-m 23.897 in lb
Flat Plate Crush Strength	2 kg/mm 111.995 lb/in

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)
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	0.21 kg/m 0.141 lb/ft
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Regulatory Compliance/Certifications

FSJ4P-50B-42

Agency**Classification**

CENELEC

EN 50575 compliant, Declaration of Performance (DoP) available

CHINA-ROHS

Below maximum concentration value

ISO 9001:2015

Designed, manufactured and/or distributed under this quality management system

REACH-SVHC

Compliant as per SVHC revision on www.commscope.com/ProductCompliance

ROHS

Compliant

UK-ROHS

Compliant

