

Product Specifications

COMMScope®



F4A-NMNF-M5-P

FSJ4-50B SureFlex® Jumper with interface types N Male and N Female, 0.5 m

Product Classification

Product Series	FSJ4-50B
Product Type	SureFlex® Premium, static PIM

General Specifications

Body Style, Connector A	Straight
Body Style, Connector B	Straight
Cable Family	FSJ4-50B
Interface, Connector A	N Male
Interface, Connector B	N Female
Length	0.500 m 1.640 ft
Nominal Size	1/2 in
Specification Sheet Revision Level	B

Electrical Specifications

3rd Order IMD Static	-155.00 dBc -112.00 dBm
3rd Order IMD Static Test Method	Two +43 dBm carriers
DTF, Connector A	-34.00 dB
DTF, Connector B	-34.00 dB

Jumper Assembly Sample Label



Return Loss/VSWR

Frequency Band	VSWR	Return Loss (dB)	VSWR, typical	Return Loss, typical (dB)
0–3000 MHz			1.11	26.00
698–960 MHz	1.06	30.00		
1700–2200 MHz	1.06	30.00		
2200–2700 MHz	1.11	26.00		

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Regulatory Compliance/Certifications

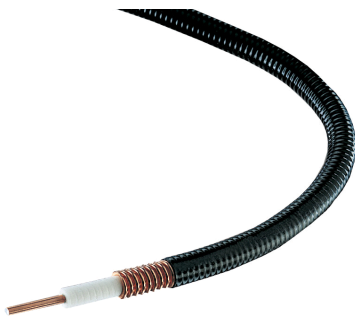
Agency	Classification
ISO 9001:2008	Designed, manufactured and/or distributed under this quality management system

Included Products

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

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FSJ4-50B

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

Product Classification

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

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 $\pm$ 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 μ H/m 0.063 μ H/ft
Insulation Resistance	100000 Mohms•km
Jacket Spark Test Voltage (rms)	5000 V
Operating Frequency Band	1 – 10200 MHz
Peak Power	15.6 kW
Velocity	81%

Environmental Specifications

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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

Brand	HELIAX®
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
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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

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

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Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
0.5	0.231	0.07	15.60
1	0.327	0.1	15.60
1.5	0.401	0.122	15.60
2	0.463	0.141	15.60
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
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
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%

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FSJ4-50B

Regulatory Compliance/Certifications

Agency

RoHS 2011/65/EU

China RoHS SJ/T 11364-2006

ISO 9001:2008

CENELEC

Classification

Compliant

Below Maximum Concentration Value (MCV)

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

EN 50575 compliant, Declaration of Performance (DoP) available

