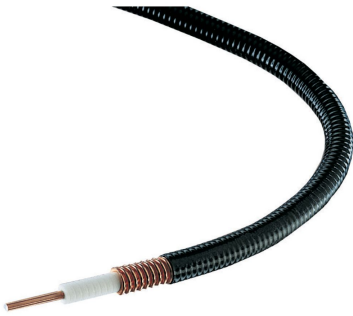


# FSJ4-50B

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

## Product Classification

<b>Product Type</b>	Coaxial wireless cable
<b>Product Brand</b>	HELIAX®   SureFlex®
<b>Product Series</b>	FSJ4-50B
<b>Ordering Note</b>	CommScope® standard product (Global)

## General Specifications

<b>Flexibility</b>	Superflexible
<b>Jacket Color</b>	Black

## Dimensions

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

## Electrical Specifications

<b>Cable Impedance</b>	50 ohm ±1 ohm
<b>Capacitance</b>	82.7 pF/m   25.207 pF/ft
<b>dc Resistance, Inner Conductor</b>	2.69 ohms/km   0.82 ohms/kft
<b>dc Resistance, Outer Conductor</b>	5.12 ohms/km   1.561 ohms/kft
<b>dc Test Voltage</b>	2500 V
<b>Inductance</b>	0.207 µH/m   0.063 µH/ft
<b>Insulation Resistance</b>	100000 Mohms•km
<b>Jacket Spark Test Voltage (rms)</b>	5000 V

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<b>Operating Frequency Band</b>	1 – 10200 MHz
<b>Peak Power</b>	22.5 kW
<b>Velocity</b>	81 %

## Attenuation

<b>Frequency (MHz)</b>	<b>Attenuation (dB/100 m)</b>	<b>Attenuation (dB/100 ft)</b>	<b>Average Power (kW)</b>
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
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

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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
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

## VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
680–800 MHz	1.21	20.8
800–960 MHz	1.21	20.8

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<b>1700–2200 MHz</b>	1.21	20.8
<b>2300–2700 MHz</b>	1.21	20.8

## Material Specifications

<b>Dielectric Material</b>	Foam PE
<b>Jacket Material</b>	PE
<b>Inner Conductor Material</b>	Copper-clad aluminum wire
<b>Outer Conductor Material</b>	Corrugated copper

## Mechanical Specifications

<b>Minimum Bend Radius, multiple Bends</b>	31.75 mm   1.25 in
<b>Minimum Bend Radius, single Bend</b>	31.75 mm   1.25 in
<b>Number of Bends, minimum</b>	20
<b>Number of Bends, typical</b>	50
<b>Tensile Strength</b>	79 kg   174.165 lb
<b>Bending Moment</b>	2.7 N-m   23.897 in lb
<b>Flat Plate Crush Strength</b>	2 kg/mm   111.995 lb/in

## Environmental Specifications

<b>Installation temperature</b>	-40 °C to +60 °C (-40 °F to +140 °F)
<b>Operating Temperature</b>	-55 °C to +85 °C (-67 °F to +185 °F)
<b>Storage Temperature</b>	-70 °C to +85 °C (-94 °F to +185 °F)
<b>Attenuation, Ambient Temperature</b>	68 °F   20 °C
<b>Average Power, Ambient Temperature</b>	104 °F   40 °C
<b>Average Power, Inner Conductor Temperature</b>	212 °F   100 °C
<b>EN50575 CPR Cable EuroClass Fire Performance</b>	Fca

## Packaging and Weights

<b>Cable weight</b>	0.21 kg/m   0.141 lb/ft
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## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
CENELEC	EN 50575 compliant, Declaration of Performance (DoP) available
CHINA-ROHS	Above maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system

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ROHS

Compliant

