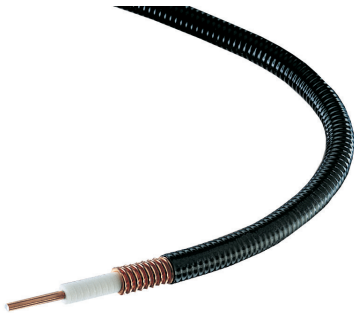


# FSJ4RKP-50B-42 | FSJ4RKP-50B-42-A



FSJ4-50B, HELIAX® Superflexible Foam Premum Coaxial Cable, corrugated copper, 1/2 in, black non-halogenated, fire retardant polyolefin jacket B2ca-s1a,d1,a1

## 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 in Europe, the Middle East, and Africa

## General Specifications

<b>Flexibility</b>	Superflexible
<b>Jacket Color</b>	Black
<b>Performance Note</b>	Attenuation values typical, guaranteed within 5%

## 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

# FSJ4RKP-50B-42 | FSJ4RKP-50B-42-A

<b>Jacket Spark Test Voltage (rms)</b>	4000 V
<b>Operating Frequency Band</b>	1 – 10200 MHz
<b>Peak Power</b>	15.6 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	15.6
1.5	0.401	0.122	15.6
2.0	0.463	0.141	15.6
10.0	1.044	0.318	10.12
20.0	1.485	0.453	7.11
30.0	1.828	0.557	5.78
50.0	2.377	0.724	4.44
85.0	3.13	0.954	3.38
88.0	3.187	0.971	3.32
100.0	3.406	1.038	3.1
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	2.15
204.0	4.96	1.512	2.13
300.0	6.095	1.858	1.73
400.0	7.121	2.17	1.48
450.0	7.592	2.314	1.39
460.0	7.684	2.342	1.37
500.0	8.042	2.451	1.31
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	0.91
1000.0	11.824	3.604	0.89

# FSJ4RKP-50B-42 | FSJ4RKP-50B-42-A

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	0.41
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

## Material Specifications

**Dielectric Material**

Foam PE

# FSJ4RKP-50B-42 | FSJ4RKP-50B-42-A

<b>Jacket Material</b>	Non-halogenated, fire retardant polyolefin
<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>	33.02 mm   1.3 in
<b>Number of Bends, minimum</b>	30
<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>	-40 °C to +60 °C (-40 °F to +140 °F)
<b>Storage Temperature</b>	-40 °C to +60 °C (-40 °F to +140 °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>	B2ca
<b>EN50575 CPR Cable EuroClass Smoke Rating</b>	s1a
<b>EN50575 CPR Cable EuroClass Droplets Rating</b>	d1
<b>EN50575 CPR Cable EuroClass Acidity Rating</b>	a1
<b>Fire Retardancy Test Method</b>	IEC 60332-1-2   UL 1666/CATVR
<b>Smoke Index Test Method</b>	IEC 61034
<b>Toxicity Index Test Method</b>	IEC 60754-1   IEC 60754-2

## Packaging and Weights

<b>Cable weight</b>	0.24 kg/m   0.161 lb/ft
---------------------	-------------------------

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
---------------	-----------------------

# FSJ4RKP-50B-42 | FSJ4RKP-50B-42-A

---

CENELEC	EN 50575 compliant, Declaration of Performance (DoP) available
CHINA-ROHS	Below maximum concentration value
REACH-SVHC	Compliant as per SVHC revision on <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a>
ROHS	Compliant
UK-ROHS	Compliant
UL/ETL Certification	CATVR

