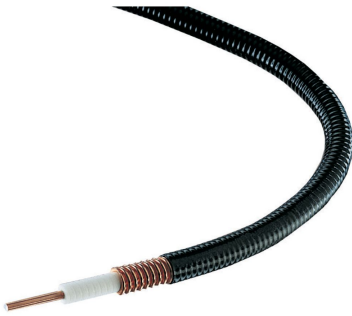


# FSJ4RKP-50B-35

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## 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 Asia Pacific   Not available in the United States or Canada

## General Specifications

<b>Flexibility</b>	Superflexible
<b>Jacket Color</b>	Black
<b>Specification Sheet Revision Level</b>	B

## 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>3rd Order IMD</b>	-107 dBm
<b>3rd Order IMD Test Method</b>	Two +43 dBm carriers
<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

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<b>dc Test Voltage</b>	2500 V
<b>Inductance</b>	0.207 $\mu$ H/m   0.063 $\mu$ H/ft
<b>Insulation Resistance</b>	100000 MOhms-km
<b>Jacket Spark Test Voltage (rms)</b>	5000 V
<b>Operating Frequency Band</b>	1 – 10200 MHz
<b>Peak Power</b>	22.5 kW
<b>Velocity</b>	81 %

## VSWR/Return Loss

<b>Frequency Band</b>	<b>VSWR</b>	<b>Return Loss (dB)</b>
<b>703–803 MHz</b>	1.21	20.8
<b>885–960 MHz</b>	1.15	23.13
<b>1710–2170 MHz</b>	1.15	23.13
<b>2490–2690 MHz</b>	1.21	20.8
<b>3300–3400 MHz</b>	1.26	19
<b>3400–3800 MHz</b>	1.26	19
<b>4400–5000 MHz</b>	1.41	15.5

## Attenuation

<b>Frequency (MHz)</b>	<b>Attenuation (dB/100 m)</b>	<b>Attenuation (dB/100 ft)</b>	<b>Average Power (kW)</b>
<b>0.5</b>	0.231	0.07	22.5
<b>1.0</b>	0.327	0.1	22.5
<b>1.5</b>	0.401	0.122	22.5
<b>2.0</b>	0.463	0.141	22.5
<b>10.0</b>	1.044	0.318	10.14
<b>20.0</b>	1.485	0.453	7.12
<b>30.0</b>	1.828	0.557	5.79
<b>50.0</b>	2.377	0.724	4.45
<b>85.0</b>	3.13	0.954	3.38
<b>88.0</b>	3.187	0.971	3.32
<b>100.0</b>	3.406	1.038	3.11
<b>108.0</b>	3.546	1.081	2.98
<b>150.0</b>	4.214	1.285	2.51
<b>174.0</b>	4.558	1.389	2.32
<b>200.0</b>	4.908	1.496	2.16
<b>204.0</b>	4.96	1.512	2.13

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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
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	7.637	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

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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	14.604	0.22

## Material Specifications

<b>Dielectric Material</b>	Foam PE
<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>	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)

## Packaging and Weights

<b>Cable weight</b>	0.21 kg/m   0.141 lb/ft
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