

# F4RS-NMDM-3M-P

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HELIAX® 1/2" Superflexible Fire retardant SureFlex® Jumper with interface types N Male and 7-16 Din male, 3m, Black non-halogenated, fire retardant polyolefin jacket

## Product Classification

<b>Product Type</b>	SureFlex® Premium, static PIM
<b>Product Brand</b>	HELIAX®   SureFlex®
<b>Product Series</b>	RSJ4-50

## General Specifications

<b>Body Style, Connector A</b>	Straight
<b>Body Style, Connector B</b>	Straight
<b>Interface, Connector A</b>	N Male
<b>Interface, Connector B</b>	7-16 DIN Male
<b>Specification Sheet Revision Level</b>	A

## Dimensions

<b>Length</b>	3 m   9.843 ft
<b>Nominal Size</b>	1/2 in

## Electrical Specifications

<b>3rd Order IMD Static</b>	-112 dBm
<b>3rd Order IMD Static Test Method</b>	Two +43 dBm carriers
<b>DTF, Connector A</b>	34 dB
<b>DTF, Connector B</b>	34 dB

## VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
698–960 MHz	1.065	30.04
1700–2200 MHz	1.065	30.04
2200–2700 MHz	1.106	25.96

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## Jumper Assembly Sample Label



## Environmental Specifications

EN50575 CPR Cable EuroClass Fire Performance	B2ca
EN50575 CPR Cable EuroClass Smoke Rating	s1a
EN50575 CPR Cable EuroClass Droplets Rating	d1
EN50575 CPR Cable EuroClass Acidity Rating	a1
Immersion Test Method	Meets IEC 60529:2001, IP68 in mated condition

## Regulatory Compliance/Certifications

Agency	Classification
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system

## Included Products

RSJ4-50	- RSJ4-50, HELIAX® Superflexible Foam Coaxial Cable, corrugated copper, 1/2 in, black PE jacket
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# RSJ4-50

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RSJ4-50, HELIAX® Superflexible Foam Coaxial Cable, corrugated copper, 1/2 in, black PE jacket

## Product Classification

<b>Product Type</b>	Coaxial wireless cable
<b>Product Brand</b>	HELIAX®   SureFlex®
<b>Product Series</b>	RSJ4-50
<b>Ordering Note</b>	CommScope® standard product (Global)

## 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>	9.423 mm   0.371 in
<b>Diameter Over Jacket</b>	13.411 mm   0.528 in
<b>Inner Conductor OD</b>	3.594 mm   0.141 in
<b>Outer Conductor OD</b>	11.989 mm   0.472 in
<b>Nominal Size</b>	1/2 in

## Electrical Specifications

<b>Cable Impedance</b>	50 ohm ±1 ohm
<b>Capacitance</b>	83.9 pF/m   25.573 pF/ft
<b>dc Resistance, Inner Conductor</b>	2.65 ohms/km   0.808 ohms/kft
<b>dc Resistance, Outer Conductor</b>	4.56 ohms/km   1.39 ohms/kft
<b>dc Test Voltage</b>	2500 V
<b>Inductance</b>	0.213 µH/m   0.065 µH/ft

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<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>	15.6 kW
<b>Velocity</b>	79 %

## VSWR/Return Loss

<b>Frequency Band</b>	<b>VSWR</b>	<b>Return Loss (dB)</b>
<b>680–800 MHz</b>	1.201	20.79
<b>800–960 MHz</b>	1.201	20.79
<b>1700–2200 MHz</b>	1.201	20.79
<b>2300–2700 MHz</b>	1.201	20.79

## Attenuation

<b>Frequency (MHz)</b>	<b>Attenuation (dB/100 m)</b>	<b>Attenuation (dB/100 ft)</b>	<b>Average Power (kW)</b>
<b>1.0</b>	0.327	0.1	15.6
<b>1.5</b>	0.401	0.122	15.6
<b>2.0</b>	0.463	0.141	15.6
<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
<b>300.0</b>	6.095	1.858	1.74
<b>400.0</b>	7.121	2.17	1.49
<b>450.0</b>	7.592	2.314	1.39
<b>460.0</b>	7.684	2.342	1.38
<b>500.0</b>	8.042	2.451	1.32

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

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

## 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>	15
<b>Number of Bends, typical</b>	20
<b>Tensile Strength</b>	79 kg   174.165 lb
<b>Bending Moment</b>	3.1 N-m   27.437 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>	0.15 kg/m   0.101 lb/ft
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## Regulatory Compliance/Certifications

**Agency**

CENELEC

ISO 9001:2015

**Classification**

EN 50575 compliant, Declaration of Performance (DoP) available

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