# F4S-HMQHMQ-M5-P



RSJ4-50 SureFlex® Jumper with interface types 4.3-10 Push Pull Male and 4.3-10 Push Pull Male 0.5 meter

WARNING: DO NOT MATE WITH 4.1-9.5 DIN

### **Product Classification**

Product Type SureFlex® Premium, static PIM

Product Brand HELIAX® | SureFlex®

**Product Series** RSJ4-50

## General Specifications

Body Style, Connector A Straight

Body Style, Connector B Straight

Interface, Connector A HMQ Male

Interface, Connector B HMQ Male

Specification Sheet Revision Level A

#### **Dimensions**

**Length** 0.5 m | 1.64 ft

Nominal Size 1/2 in

## **Electrical Specifications**

**3rd Order IMD Static** -117 dBm

**3rd Order IMD Static Test Method** Two +43 dBm carriers

DTF, Connector A 34 dB
DTF, Connector B 34 dB

## VSWR/Return Loss

| Frequency Band | VSWR  | Return Loss (dB) |
|----------------|-------|------------------|
| 698-960 MHz    | 1.065 | 30.04            |
| 1700-2200 MHz  | 1.083 | 27.99            |
| 2200-2700 MHz  | 1.119 | 25.01            |



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# Jumper Assembly Sample Label



### **Environmental Specifications**

**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





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

#### **Product Classification**

Product Type Coaxial wireless cable

Product Brand HELIAX® | SureFlex®

**Product Series** RSJ4-50

Ordering Note CommScope® standard product (Global)

General Specifications

**Flexibility** Superflexible

Jacket Color Black

**Performance Note**Attenuation values typical, guaranteed within 5%

**Dimensions** 

 Diameter Over Dielectric
 9.423 mm | 0.371 in

 Diameter Over Jacket
 13.411 mm | 0.528 in

 Inner Conductor OD
 3.594 mm | 0.141 in

 Outer Conductor OD
 11.989 mm | 0.472 in

Nominal Size 1/2 in

**Electrical Specifications** 

Cable Impedance50 ohm ±1 ohm

**Capacitance** 83.9 pF/m | 25.573 pF/ft

dc Resistance, Inner Conductor2.65 ohms/km0.808 ohms/kftdc Resistance, Outer Conductor4.56 ohms/km1.39 ohms/kft

dc Test Voltage 2500 V

**Inductance** 0.213  $\mu$ H/m | 0.065  $\mu$ H/ft

**COMMSCOPE®** 

**Insulation Resistance** 100000 MOhms-km

Jacket Spark Test Voltage (rms) 5000 V

Operating Frequency Band 1 – 10200 MHz

 Peak Power
 15.6 kW

 Velocity
 79 %

### VSWR/Return Loss

| Frequency Band | VSWR  | Return Loss (dB) |
|----------------|-------|------------------|
| 680-800 MHz    | 1.201 | 20.79            |
| 800-960 MHz    | 1.201 | 20.79            |
| 1700-2200 MHz  | 1.201 | 20.79            |
| 2300-2700 MHz  | 1.201 | 20.79            |

### Attenuation

| Frequency (MHz) | Attenuation (dB/100 m) | Attenuation (dB/100 ft) | Average Power (kW) |
|-----------------|------------------------|-------------------------|--------------------|
| 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                   | 10.14              |
| 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               |
|                 |                        |                         |                    |

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| 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 | 7.636 | 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 |

## Material Specifications

**Dielectric Material** Foam PE

Jacket Material PE

Inner Conductor Material Copper-clad aluminum wire

Outer Conductor Material Corrugated copper

Mechanical Specifications

Minimum Bend Radius, multiple Bends31.75 mm1.25 inMinimum Bend Radius, single Bend31.75 mm1.25 in

Number of Bends, minimum 15 Number of Bends, typical 20

 Tensile Strength
 79 kg | 174.165 lb

 Bending Moment
 3.1 N-m | 27.437 in lb

 Flat Plate Crush Strength
 2 kg/mm | 111.995 lb/in

# **Environmental Specifications**

Installation temperature  $-40 \,^{\circ}\text{C}$  to  $+60 \,^{\circ}\text{C}$  ( $-40 \,^{\circ}\text{F}$  to  $+140 \,^{\circ}\text{F}$ )

Operating Temperature  $-55 \,^{\circ}\text{C}$  to  $+85 \,^{\circ}\text{C}$  ( $-67 \,^{\circ}\text{F}$  to  $+185 \,^{\circ}\text{F}$ )

Storage Temperature  $-70 \,^{\circ}\text{C}$  to  $+85 \,^{\circ}\text{C}$  ( $-94 \,^{\circ}\text{F}$  to  $+185 \,^{\circ}\text{F}$ )

Attenuation, Ambient Temperature 68 °F | 20 °C Average Power, Ambient Temperature 104 °F | 40 °C Average Power, Inner Conductor Temperature 212 °F | 100 °C

EN50575 CPR Cable EuroClass Fire Performance Fca

Packaging and Weights

**Cable weight** 0.15 kg/m | 0.101 lb/ft

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# Regulatory Compliance/Certifications

Agency Classification

CENELEC EN 50575 compliant, Declaration of Performance (DoP) available

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

CENELEC