

F2RNA-PNMNM-1M

FSJ2RK-50 SureFlex® Jumper with interface types N Male and N Male,



Product Classification

| | |
|-----------------------|--------------------------------------|
| Product Type | Wireless transmission cable assembly |
| Product Brand | HELIAX® SureFlex® |
| Product Series | FSJ2-50 |

General Specifications

| | |
|---|----------|
| Body Style, Connector A | Straight |
| Body Style, Connector B | Straight |
| Interface, Connector A | N Male |
| Interface, Connector B | N Male |
| Specification Sheet Revision Level | A |

Dimensions

| | |
|---------------------|----------------|
| Length | 1 m 3.281 ft |
| Nominal Size | 3/8 in |

VSWR/Return Loss

| Frequency Band | VSWR | Return Loss (dB) |
|----------------|-------|------------------|
| 700–3000 MHz | 1.222 | 20.01 |

Jumper Assembly Sample Label

F2RNA-PNMNM-1M



Environmental Specifications

| | |
|---|---|
| EN50575 CPR Cable EuroClass Fire Performance | B2ca |
| EN50575 CPR Cable EuroClass Smoke Rating | s1a |
| EN50575 CPR Cable EuroClass Droplets Rating | d0 |
| 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

- 35422-48 – Heat Treated FSJ2RK-50, HELIAX® Superflexible Foam Coaxial Cable, corrugated copper, 3/8 in, black non-halogenated, fire retardant polyolefin jacket
- FSJ2RK-50 – FSJ2-50, HELIAX® Superflexible Foam Coaxial Cable, corrugated copper, 3/8 in, black non-halogenated, fire retardant polyolefin jacket B2ca s1a d0 a1 Compliant

35422-48



Heat Treated FSJ2RK-50, HELIAX® Superflexible Foam Coaxial Cable, corrugated copper, 3/8 in, black non-halogenated, fire retardant polyolefin jacket

Product Classification

| | |
|-----------------------|------------------------|
| Product Type | Coaxial wireless cable |
| Product Brand | HELIAX® SureFlex® |
| Product Series | FSJ2-50 |

General Specifications

| | |
|-------------------------|--|
| Flexibility | Superflexible |
| Jacket Color | Black |
| Performance Note | Attenuation values typical, guaranteed within 5% |

Dimensions

| | |
|---------------------------------|---------------------|
| Diameter Over Dielectric | 7.112 mm 0.28 in |
| Diameter Over Jacket | 10.922 mm 0.43 in |
| Inner Conductor OD | 2.794 mm 0.11 in |
| Outer Conductor OD | 9.652 mm 0.38 in |
| Nominal Size | 3/8 in |

Electrical Specifications

| | |
|---------------------------------------|-------------------------------|
| Cable Impedance | 50 ohm ±1 ohm |
| Capacitance | 80 pF/m 24.384 pF/ft |
| dc Resistance, Inner Conductor | 4.232 ohms/km 1.29 ohms/kft |
| dc Resistance, Outer Conductor | 4.987 ohms/km 1.52 ohms/kft |
| dc Test Voltage | 2300 V |
| Inductance | 0.2 µH/m 0.061 µH/ft |
| Insulation Resistance | 100000 MOhms-km |

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| | |
|--|---------------|
| Jacket Spark Test Voltage (rms) | 4000 V |
| Operating Frequency Band | 1 – 13400 MHz |
| Peak Power | 13.2 kW |
| Velocity | 83 % |

VSWR/Return Loss

| Frequency Band | VSWR | Return Loss (dB) |
|-----------------------|-------------|-------------------------|
| 680–960 MHz | 1.201 | 20.79 |
| 1700–2200 MHz | 1.201 | 20.79 |
| 2200–2700 MHz | 1.433 | 14.99 |

Attenuation

| Frequency (MHz) | Attenuation (dB/100 m) | Attenuation (dB/100 ft) | Average Power (kW) |
|------------------------|-------------------------------|--------------------------------|---------------------------|
| 1.0 | 0.383 | 0.117 | 13.2 |
| 1.5 | 0.469 | 0.143 | 13.2 |
| 2.0 | 0.542 | 0.165 | 13.2 |
| 10.0 | 1.219 | 0.372 | 6.97 |
| 20.0 | 1.732 | 0.528 | 4.91 |
| 30.0 | 2.128 | 0.649 | 3.99 |
| 50.0 | 2.762 | 0.842 | 3.08 |
| 85.0 | 3.626 | 1.105 | 2.34 |
| 88.0 | 3.691 | 1.125 | 2.3 |
| 100.0 | 3.943 | 1.202 | 2.16 |
| 108.0 | 4.103 | 1.25 | 2.07 |
| 150.0 | 4.864 | 1.482 | 1.75 |
| 174.0 | 5.254 | 1.601 | 1.62 |
| 200.0 | 5.65 | 1.722 | 1.5 |
| 204.0 | 5.709 | 1.74 | 1.49 |
| 300.0 | 6.99 | 2.13 | 1.22 |
| 400.0 | 8.139 | 2.481 | 1.04 |
| 450.0 | 8.665 | 2.641 | 0.98 |
| 460.0 | 8.767 | 2.672 | 0.97 |
| 500.0 | 9.166 | 2.794 | 0.93 |
| 512.0 | 9.283 | 2.829 | 0.92 |
| 600.0 | 10.107 | 3.081 | 0.84 |

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| | | | |
|---------------|--------|--------|------|
| 700.0 | 10.983 | 3.347 | 0.77 |
| 800.0 | 11.807 | 3.599 | 0.72 |
| 824.0 | 11.998 | 3.657 | 0.71 |
| 894.0 | 12.542 | 3.823 | 0.68 |
| 960.0 | 13.04 | 3.974 | 0.65 |
| 1000.0 | 13.334 | 4.064 | 0.64 |
| 1218.0 | 14.861 | 4.529 | 0.57 |
| 1250.0 | 15.075 | 4.595 | 0.56 |
| 1500.0 | 16.68 | 5.084 | 0.51 |
| 1700.0 | 17.887 | 5.452 | 0.48 |
| 1794.0 | 18.436 | 5.619 | 0.46 |
| 1800.0 | 18.47 | 5.629 | 0.46 |
| 2000.0 | 19.599 | 5.974 | 0.43 |
| 2100.0 | 20.147 | 6.141 | 0.42 |
| 2200.0 | 20.685 | 6.305 | 0.41 |
| 2300.0 | 21.214 | 6.466 | 0.4 |
| 2500.0 | 22.247 | 6.781 | 0.38 |
| 2700.0 | 23.249 | 7.086 | 0.37 |
| 3000.0 | 24.701 | 7.529 | 0.34 |
| 3400.0 | 26.558 | 8.094 | 0.32 |
| 3600.0 | 27.456 | 8.368 | 0.31 |
| 3700.0 | 27.899 | 8.503 | 0.3 |
| 3800.0 | 28.337 | 8.637 | 0.3 |
| 3900.0 | 28.771 | 8.769 | 0.3 |
| 4000.0 | 29.201 | 8.9 | 0.29 |
| 4100.0 | 29.628 | 9.03 | 0.29 |
| 4200.0 | 30.051 | 9.159 | 0.28 |
| 4300.0 | 30.47 | 9.287 | 0.28 |
| 4400.0 | 30.886 | 9.414 | 0.28 |
| 4500.0 | 31.298 | 9.539 | 0.27 |
| 4600.0 | 31.708 | 9.664 | 0.27 |
| 4700.0 | 32.114 | 9.788 | 0.26 |
| 4800.0 | 32.518 | 9.911 | 0.26 |
| 4900.0 | 32.919 | 10.033 | 0.26 |
| 5000.0 | 33.316 | 10.154 | 0.26 |

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|---------|--------|--------|------|
| 6000.0 | 37.158 | 11.325 | 0.23 |
| 8000.0 | 44.264 | 13.491 | 0.19 |
| 8800.0 | 46.943 | 14.308 | 0.18 |
| 10000.0 | 50.826 | 15.491 | 0.17 |
| 12000.0 | 57.001 | 17.373 | 0.15 |

Material Specifications

| | |
|---------------------------------|--|
| Dielectric Material | Foam PE |
| Jacket Material | Non-halogenated, fire retardant polyolefin |
| Inner Conductor Material | Copper-clad aluminum wire |
| Outer Conductor Material | Corrugated copper |

Mechanical Specifications

| | |
|--|---------------------------|
| Minimum Bend Radius, multiple Bends | 25.4 mm 1 in |
| Minimum Bend Radius, single Bend | 25.4 mm 1 in |
| Number of Bends, minimum | 30 |
| Number of Bends, typical | 50 |
| Tensile Strength | 95 kg 209.439 lb |
| Bending Moment | 2.3 N-m 20.357 in lb |
| Flat Plate Crush Strength | 1.8 kg/mm 100.795 lb/in |

Environmental Specifications

| | |
|---|--------------------------------------|
| Installation temperature | -40 °C to +60 °C (-40 °F to +140 °F) |
| Operating Temperature | -40 °C to +60 °C (-40 °F to +140 °F) |
| Storage Temperature | -40 °C to +60 °C (-40 °F to +140 °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 |
| Fire Retardancy Test Method | NFPA 130-2010 UL 1666/CATVR |
| Smoke Index Test Method | IEC 61034 |
| Toxicity Index Test Method | IEC 60754-1 IEC 60754-2 |

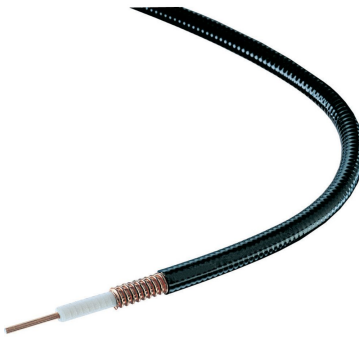
Packaging and Weights

| | |
|---------------------|-------------------------|
| Cable weight | 0.13 kg/m 0.087 lb/ft |
|---------------------|-------------------------|

Regulatory Compliance/Certifications

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

FSJ2RK-50



FSJ2-50, HELIAX® Superflexible Foam Coaxial Cable, corrugated copper, 3/8 in, black non-halogenated, fire retardant polyolefin jacket B2ca sl and RoHS Compliant

Product Classification

| | |
|-----------------------|------------------------|
| Product Type | Coaxial wireless cable |
| Product Brand | HELIAX® SureFlex® |
| Product Series | FSJ2-50 |

General Specifications

| | |
|-------------------------|--|
| Product Number | 520102002/00 SZ520102002/00 |
| Flexibility | Superflexible |
| Jacket Color | Black |
| Performance Note | Attenuation values typical, guaranteed within 5% |

Dimensions

| | |
|---------------------------------|---------------------|
| Diameter Over Dielectric | 7.112 mm 0.28 in |
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| Cable Impedance | 50 ohm \pm 1 ohm |
| Capacitance | 80 pF/m 24.384 pF/ft |
| dc Resistance, Inner Conductor | 4.232 ohms/km 1.29 ohms/kft |
| dc Resistance, Outer Conductor | 4.987 ohms/km 1.52 ohms/kft |
| dc Test Voltage | 2300 V |
| Inductance | 0.2 μ H/m 0.061 μ H/ft |

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| | |
|--|-----------------|
| Insulation Resistance | 100000 MOhms-km |
| Jacket Spark Test Voltage (rms) | 4000 V |
| Operating Frequency Band | 1 – 13400 MHz |
| Peak Power | 13.2 kW |
| Velocity | 83 % |

VSWR/Return Loss

| Frequency Band | VSWR | Return Loss (dB) |
|-----------------------|-------------|-------------------------|
| 680–960 MHz | 1.201 | 20.79 |
| 1700–2200 MHz | 1.201 | 20.79 |
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| 10.0 | 1.219 | 0.372 | 6.97 |
| 20.0 | 1.732 | 0.528 | 4.91 |
| 30.0 | 2.128 | 0.649 | 3.99 |
| 50.0 | 2.762 | 0.842 | 3.08 |
| 85.0 | 3.626 | 1.105 | 2.34 |
| 88.0 | 3.691 | 1.125 | 2.3 |
| 100.0 | 3.943 | 1.202 | 2.16 |
| 108.0 | 4.103 | 1.25 | 2.07 |
| 150.0 | 4.864 | 1.482 | 1.75 |
| 174.0 | 5.254 | 1.601 | 1.62 |
| 200.0 | 5.65 | 1.722 | 1.5 |
| 204.0 | 5.709 | 1.74 | 1.49 |
| 300.0 | 6.99 | 2.13 | 1.22 |
| 400.0 | 8.139 | 2.481 | 1.04 |
| 450.0 | 8.665 | 2.641 | 0.98 |
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| | | | |
|---------------|--------|--------|------|
| 600.0 | 10.107 | 3.081 | 0.84 |
| 700.0 | 10.983 | 3.347 | 0.77 |
| 800.0 | 11.807 | 3.599 | 0.72 |
| 824.0 | 11.998 | 3.657 | 0.71 |
| 894.0 | 12.542 | 3.823 | 0.68 |
| 960.0 | 13.04 | 3.974 | 0.65 |
| 1000.0 | 13.334 | 4.064 | 0.64 |
| 1218.0 | 14.861 | 4.529 | 0.57 |
| 1250.0 | 15.075 | 4.595 | 0.56 |
| 1500.0 | 16.68 | 5.084 | 0.51 |
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| 1794.0 | 18.436 | 5.619 | 0.46 |
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| 6000.0 | 37.158 | 11.325 | 0.23 |
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| 8800.0 | 46.943 | 14.308 | 0.18 |
| 10000.0 | 50.826 | 15.491 | 0.17 |
| 12000.0 | 57.001 | 17.373 | 0.15 |

Material Specifications

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|---------------------------------|--|
| Dielectric Material | Foam PE |
| Jacket Material | Non-halogenated, fire retardant polyolefin |
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| Outer Conductor Material | Corrugated copper |

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|--|---------------------------|
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| Minimum Bend Radius, single Bend | 25.4 mm 1 in |
| Number of Bends, minimum | 30 |
| Number of Bends, typical | 50 |
| Tensile Strength | 95 kg 209.439 lb |
| Bending Moment | 2.3 N-m 20.357 in lb |
| Flat Plate Crush Strength | 1.8 kg/mm 100.795 lb/in |

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| Operating Temperature | -40 °C to +60 °C (-40 °F to +140 °F) |
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| 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 | B2ca |
| EN50575 CPR Cable EuroClass Smoke Rating | s1a |
| EN50575 CPR Cable EuroClass Droplets Rating | d0 |
| EN50575 CPR Cable EuroClass Acidity Rating | a1 |

FSJ2RK-50

Fire Retardancy Test Method

IEC 60332-1-2 | IEC 60332-3-24 | NFPA 130-2010 | UL 1666/CATVR /CMR | UL 1685

Smoke Index Test Method

IEC 61034

Toxicity Index Test Method

IEC 60754-1 | IEC 60754-2

Packaging and Weights

Cable weight

0.13 kg/m | 0.087 lb/ft

Regulatory Compliance/Certifications

Agency

Classification

CENELEC

EN 50575 compliant, Declaration of Performance (DoP) available

CHINA-ROHS

Below maximum concentration value

ISO 9001:2015

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

REACH-SVHC

Compliant as per SVHC revision on www.commscope.com/ProductCompliance

ROHS

Compliant

UK-ROHS

Compliant

