



Heat Treated FSJ2-50, HELIAX® Superflexible Foam Coaxial Cable, corrugated copper, 3/8 in, black PE jacket

Product Classification

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

Construction Materials

| | |
|---------------------------------|---------------------------|
| Jacket Material | PE |
| Outer Conductor Material | Corrugated copper |
| Dielectric Material | Foam PE |
| Flexibility | Superflexible |
| Inner Conductor Material | Copper-clad aluminum wire |
| Jacket Color | Black |

Dimensions

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|---------------------------------|------------------------|
| Nominal Size | 3/8 in |
| Cable Weight | 0.08 lb/ft 0.12 kg/m |
| Diameter Over Dielectric | 7.112 mm 0.280 in |
| Diameter Over Jacket | 10.541 mm 0.415 in |
| Inner Conductor OD | 2.7940 mm 0.1100 in |
| Outer Conductor OD | 9.652 mm 0.380 in |

Electrical Specifications

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|--|------------------------------------|
| Cable Impedance | 50 ohm \pm 1 ohm |
| Capacitance | 24.3 pF/ft 79.7 pF/m |
| dc Resistance, Inner Conductor | 1.290 ohms/kft 4.232 ohms/km |
| dc Resistance, Outer Conductor | 1.520 ohms/kft 4.987 ohms/km |
| dc Test Voltage | 2300 V |
| Inductance | 0.200 μ H/m 0.061 μ H/ft |
| 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% |

Environmental Specifications

| | |
|---------------------------------|--------------------------------------|
| Installation Temperature | -40 °C to +60 °C (-40 °F to +140 °F) |
| Operating Temperature | -55 °C to +85 °C (-67 °F to +185 °F) |
| Storage Temperature | -70 °C to +85 °C (-94 °F to +185 °F) |

Mechanical Specifications

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|--|-------------------------|
| Bending Moment | 2.3 N-m 1.7 ft lb |
| Flat Plate Crush Strength | 100.0 lb/in 1.8 kg/mm |
| Minimum Bend Radius, Multiple Bends | 25.40 mm 1.00 in |
| Minimum Bend Radius, Single Bend | 25.40 mm 1.00 in |
| Number of Bends, minimum | 20 |
| Number of Bends, typical | 50 |
| Tensile Strength | 95 kg 210 lb |

Note

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|-------------------------|---|
| Performance Note | Values typical, unless otherwise stated |
|-------------------------|---|

Standard Conditions

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

Attenuation

| Frequency (MHz) | Attenuation (dB/100 m) | Attenuation (dB/100 ft) | Average Power (kW) |
|-----------------|------------------------|-------------------------|--------------------|
| 0.5 | 0.27 | 0.082 | 13.20 |
| 1 | 0.383 | 0.117 | 13.20 |
| 1.5 | 0.469 | 0.143 | 13.20 |
| 2 | 0.542 | 0.165 | 13.20 |
| 10 | 1.219 | 0.372 | 6.97 |
| 20 | 1.732 | 0.528 | 4.91 |
| 30 | 2.128 | 0.649 | 3.99 |
| 50 | 2.762 | 0.842 | 3.08 |
| 85 | 3.626 | 1.105 | 2.34 |
| 88 | 3.691 | 1.125 | 2.30 |
| 100 | 3.943 | 1.202 | 2.16 |
| 108 | 4.103 | 1.25 | 2.07 |
| 150 | 4.864 | 1.482 | 1.75 |
| 174 | 5.254 | 1.601 | 1.62 |
| 200 | 5.65 | 1.722 | 1.50 |
| 204 | 5.709 | 1.74 | 1.49 |
| 300 | 6.99 | 2.13 | 1.22 |
| 400 | 8.139 | 2.481 | 1.04 |
| 450 | 8.665 | 2.641 | 0.98 |
| 500 | 9.166 | 2.794 | 0.93 |
| 512 | 9.283 | 2.829 | 0.92 |
| 600 | 10.107 | 3.081 | 0.84 |
| 700 | 10.983 | 3.347 | 0.77 |
| 800 | 11.807 | 3.599 | 0.72 |
| 824 | 11.998 | 3.657 | 0.71 |
| 894 | 12.542 | 3.823 | 0.68 |
| 960 | 13.04 | 3.974 | 0.65 |
| 1000 | 13.334 | 4.064 | 0.64 |
| 1218 | 14.861 | 4.529 | 0.57 |
| 1250 | 15.075 | 4.595 | 0.56 |
| 1500 | 16.68 | 5.084 | 0.51 |
| 1700 | 17.887 | 5.452 | 0.48 |
| 1794 | 18.436 | 5.619 | 0.46 |
| 1800 | 18.47 | 5.629 | 0.46 |
| 2000 | 19.599 | 5.974 | 0.43 |
| 2100 | 20.147 | 6.141 | 0.42 |
| 2200 | 20.685 | 6.305 | 0.41 |
| 2300 | 21.214 | 6.466 | 0.40 |
| 2500 | 22.247 | 6.78 | 0.38 |
| 2700 | 23.249 | 7.086 | 0.37 |
| 3000 | 24.701 | 7.529 | 0.34 |
| 3400 | 26.558 | 8.094 | 0.32 |
| 3700 | 27.899 | 8.503 | 0.30 |
| 3800 | 28.337 | 8.637 | 0.30 |
| 4000 | 29.201 | 8.9 | 0.29 |

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|-------|--------|--------|------|
| 5000 | 33.316 | 10.154 | 0.26 |
| 6000 | 37.158 | 11.325 | 0.23 |
| 8000 | 44.264 | 13.491 | 0.19 |
| 8800 | 46.943 | 14.308 | 0.18 |
| 10000 | 50.826 | 15.491 | 0.17 |
| 12000 | 57.001 | 17.373 | 0.15 |

* Values typical, guaranteed within 5%

Regulatory Compliance/Certifications

Agency

RoHS 2011/65/EU
 China RoHS SJ/T 11364-2006
 ISO 9001:2015

Classification

Compliant
 Below Maximum Concentration Value (MCV)
 Designed, manufactured and/or distributed under this quality management system

