Product Specifications





AVA5-50FX

AVA5-50FX, HELIAX® Andrew Virtual Air™ Coaxial Cable, corrugated copper, 7/8 in, black PE jacket

Construction Materials

Jacket Material PE

Outer Conductor Material Corrugated copper

Dielectric Material Foam PE
Flexibility Standard
Inner Conductor Material Copper
Jacket Color Black

Dimensions

Nominal Size 7/8 in

 Cable Weight
 0.29 lb/ft | 0.43 kg/m

 Diameter Over Dielectric
 24.130 mm | 0.950 in

 Diameter Over Jacket
 27.991 mm | 1.102 in

 Inner Conductor OD
 9.4488 mm | 0.3720 in

 Outer Conductor OD
 25.400 mm | 1.000 in

Electrical Specifications

Cable Impedance 50 ohm ±1 ohm

Capacitance 22.0 pF/ft | 73.0 pF/m

dc Resistance, Inner Conductor0.825 ohms/kft| 2.888 ohms/kmdc Resistance, Outer Conductor0.400 ohms/kft| 1.313 ohms/km

dc Test Voltage 6000 V

Inductance 0.184 μ H/m | 0.056 μ H/ft

Insulation Resistance 100000 Mohms•km

Jacket Spark Test Voltage (rms) 8000 V

Operating Frequency Band 1 - 5000 MHz

Peak Power 91.0 kW

Velocity 90%

Environmental Specifications

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

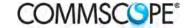
Operating Temperature $-55 \, ^{\circ}\text{C}$ to $+70 \, ^{\circ}\text{C}$ ($-67 \, ^{\circ}\text{F}$ to $+158 \, ^{\circ}\text{F}$)

Storage Temperature $-70 \, ^{\circ}\text{C}$ to $+70 \, ^{\circ}\text{C}$ ($-94 \, ^{\circ}\text{F}$ to $+158 \, ^{\circ}\text{F}$)

General Specifications

Brand HELIAX®

Product Specifications



AVA5-50FX

Ordering Note CommScope® non-standard product | Not available in the United States

or Canada

Mechanical Specifications

| Bending Moment | 27.1 N-m 20.0 ft lb |
|-------------------------------------|-----------------------|
| Flat Plate Crush Strength | 75.0 lb/in |
| Minimum Bend Radius, Multiple Bends | 254.00 mm 10.00 in |
| Minimum Bend Radius, Single Bend | 127.00 mm 5.00 in |
| Number of Bends, minimum | 15 |
| Number of Bends, typical | 30 |
| Tensile Strength | 159 kg 350 lb |

Note

Performance Note Values typical, unless otherwise stated

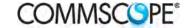
Standard Conditions

| Attenuation, Ambient Temperature | 20 °C 68 | 8 °F |
|--|------------|--------|
| Average Power, Ambient Temperature | 40 °C 10 | .04 °F |
| Average Power, Inner Conductor Temperature | 100 °C 2 | 212 °F |

Return Loss/VSWR

| Frequency Band | VSWR | Return Loss (dB) |
|----------------|------|------------------|
| 680-800 MHz | 1.13 | 24.30 |
| 800-960 MHz | 1.13 | 24.30 |
| 1700-2200 MHz | 1.13 | 24.30 |

Product Specifications



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Attenuation

| requency (MHz) | Attenuation (dB/100 m) | Attenuation (dB/100 ft) | Average Power (kW) |
|----------------|------------------------|-------------------------|--------------------|
|).5 | 0.08 | 0.024 | 91.00 |
| | 0.113 | 0.034 | 74.43 |
| 5 | 0.138 | 0.042 | 60.73 |
| 2 | 0.16 | 0.049 | 52.56 |
| .0 | 0.359 | 0.11 | 23.37 |
| 20 | 0.51 | 0.156 | 16.46 |
| 80 | 0.627 | 0.191 | 13.39 |
| 50 | 0.814 | 0.248 | 10.32 |
| 35 | 1.068 | 0.326 | 7.86 |
| 8 | 1.088 | 0.332 | 7.72 |
| 00 | 1.162 | 0.354 | 7.23 |
| 08 | 1.209 | 0.368 | 6.95 |
| 50 | 1.433 | 0.437 | 5.86 |
| .74 | 1.548 | 0.472 | 5.43 |
| 00 | 1.665 | 0.507 | 5.05 |
| 04 | 1.682 | 0.513 | 4.99 |
| 00 | 2.059 | 0.628 | 4.08 |
| 00 | 2.398 | 0.731 | 3.50 |
| 50 | 2.553 | 0.778 | 3.29 |
| 00 | 2.7 | 0.823 | 3.11 |
| 12 | 2.735 | 0.834 | 3.07 |
| 00 | 2.977 | 0.907 | 2.82 |
| 00 | 3.235 | 0.986 | 2.60 |
| 00 | 3.478 | 1.06 | 2.42 |
| 24 | 3.534 | 1.077 | 2.38 |
| 94 | 3.694 | 1.126 | 2.27 |
| 60 | 3.841 | 1.171 | 2.19 |
| 000 | 3.927 | 1.197 | 2.14 |
| 218 | 4.377 | 1.334 | 1.92 |
| 250 | 4.44 | 1.353 | 1.89 |
| 500 | 4.912 | 1.497 | 1.71 |
| 700 | 5.268 | 1.606 | 1.59 |
| 800 | 5.439 | 1.658 | 1.54 |
| 000 | 5.771 | 1.759 | 1.46 |
| 100 | 5.933 | 1.808 | 1.42 |
| 200 | 6.091 | 1.856 | 1.38 |
| 300 | 6.247 | 1.904 | 1.34 |
| 500 | 6.551 | 1.996 | 1.28 |
| 700 | 6.845 | 2.086 | 1.23 |
| 000 | 7.273 | 2.217 | 1.15 |
| 400 | 7.819 | 2.383 | 1.07 |
| 700 | 8.213 | 2.503 | 1.02 |
| 000 | 8.596 | 2.62 | 0.98 |
| 000 | 9.807 | 2.989 | 0.86 |

^{*} Values typical, guaranteed within 5%

Regulatory Compliance/Certifications

Agency Classification

ISO 9001:2008 Designed, manufactured and/or distributed under this quality management system