

#### 50 Ohm Radiating Cable, 1-5/8" - AR158FV50-1C

| Description  | Product Number                      |
|--|-------------------------------------|
| <b>Fire Retardant Cable</b>  |                                     |
| 1-5/8", Low-Smoke, Non-Halogenated, Fire Retardant Jacket, Conforms to IEC332-1, IEC332-3C, UL1685-12, FT4/IEEE1202 (NFPA-130), CMG-LS | AR158FV50-1C                        |
| <b>Features &amp; Benefits</b>   |                                     |
| 100% Made in the USA (Buy America, Title 49 Compliant)   |                                     |
| NFPA-130/NFPA-502 Compliant (2017 Edition) & CMG-LS Listed   |                                     |
| No Water Migration 15 Year Warranty  |                                     |
| Indication of Slot Alignment   | None                                |
| Recommended Hanger Spacing, ft (m)   | 6 (2)                               |
| Minimum Distance to Wall, in (mm)  | 2 (50.8)                            |
| Jacket Color   | Black                               |
| <b>Physical Dimensions</b>   |                                     |
| Center Diameter, in (mm)   | 0.727 (18.47)                       |
| Diameter Over Dielectric, in (mm)  | 1.881 (47.78)                       |
| Diameter Over Outer Conductor, in (mm)   | 1.897 (48.18)                       |
| Maximum Diameter Over Jacket, in (mm)  | 1.997 (50.72)                       |
| Center Conductor   | Solid Copper Tube                   |
| Outer Conductor  | Dual Slotted<br>Solid Aluminum Tube |
| <b>Electrical Characteristics</b>  |                                     |
| Maximum Frequency, GHz   | 1                                   |
| Peak Power Rating, KW  | 306                                 |
| DC Resistance, Ohms/1,000 ft (1,000 m)   |                                     |
| Center   | 0.22 (0.72)                         |
| Outer  | 0.10 (0.33)                         |
| DC Breakdown, kV   | 11                                  |
| Capacitance, pF/ft (m)   | 22.3 (73.16)                        |
| Inductance, mH/ft (m)  | 0.056 (0.184)                       |
| Jacket Spark, kV RMS   | 8                                   |
| VSWR min, (dB)   | 1.38 (16.0)                         |
| VSWR in-band, (dB)   | 1.30 (17.7)                         |
| Impedance, Ohms  | 50 ± 2                              |
| Velocity of Propagation  | 91%                                 |
| Stop Bands, MHz  | 517 - 558                           |
| <b>Mechanical Characteristics</b>  |                                     |
| Minimum Bend Radius, in (mm) - Single  | 20 (508)                            |
| Cable Weight, lb/ft (kg/m)   | 0.83 (1.23)                         |
| Bending Moment, ft lb (N m)  | 60 (81)                             |
| Tensile Strength, lb (kg)  | 1,500 (682)                         |
| Flat Plate Crush, lb/in (kg/mm)  | 150 (2.68)                          |
| Recommended Install Temp., °F (°C)   | -10° to 170° (-23° to 77°)          |
| Recommended Storage Temp., °F (°C)   | -40° to 170° (-40° to 77°)          |
| Recommended Operating Temp., °F (°C)   | -40° to 185° (-40° to 85°)          |
| <b>Regulatory Compliance/Certifications</b>  |                                     |
| RoHS 2011/65/EU Compliant  |                                     |
| TL 9000 H-V - All Cables designed and manufactured under this quality management system  |                                     |



| Electrical Performance |             |          |                       |
|------------------------|-------------|----------|-----------------------|
| Frequency, MHz         | Attenuation |          | Coupling Loss 95%, dB |
|                        | dB/100 ft   | dB/100 m |                       |
| 150                    | 0.23        | 0.75     | 65 (69)               |
| 220                    | 0.29        | 0.95     | 65 (69)               |
| 300                    | 0.36        | 1.18     | 68 (70)               |
| 350                    | 0.42        | 1.38     | 64 (66)               |
| 400                    | 0.47        | 1.54     | 67 (68)               |
| 450                    | 0.51        | 1.67     | 56 (60)               |
| 500                    | 0.57        | 1.87     | 63 (66)               |
| 600                    | 0.80        | 2.62     | 63 (66)               |
| 700                    | 0.92        | 3.02     | 61 (65)               |
| 800                    | 1.09        | 3.58     | 60 (64)               |
| 900                    | 1.27        | 4.17     | 64 (67)               |
| 960                    | 1.54        | 5.05     | 63 (66)               |

#### Notes:

- Coupling Loss and Attenuation Values are measured in accordance with the IEC 61196-4 Free Space Test Method
- Coupling Loss values are measured with a radial (below 330 MHz) or orthogonal (above 330 MHz) orientated dipole antenna
- The Coupling Loss values in parentheses are the mean values of all three spatial orientations (radial, parallel and orthogonal) of dipole antenna
- Coupling Loss Tolerance of ± 10 dB at 6 ft (2m), 95%
- Attenuation Tolerance of ± 10% at 68°F
- As is the case with all radiating cables, performance in RF confined areas may differ from values in a free space.

**Trilogy AirCell® Cable**

Proud to be 100% Made in the USA

