

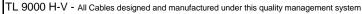
# **Radiating Cable**



# **Product Specification**

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

Description	Product Number			
Fire Retardant Cable				
1-5/8", Low-Smoke, Non-Halogenated, Fire Retardant Jacket, Conforms to IEC332-1, IEC332-3C, UL1685-12, FT4/IEEE1202 (NFPA-130), CMG-LS	AR158FV50-1D			
Features & Benefits				
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				
Recommended Hanger Spacing, ft (m)	6 (2)			
Minimum Distance to Wall, in (mm)	2 (50.8)			
Jacket Color	Black			
Physical Dimensions				
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			
Contain Contactor	Dual Slotted			
Outer Conductor	Solid Aluminum Tube			
Electrical Characteristics				
Maximum Frequency, GHz	2.7			
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	1386 - 1393			
Mechanical Characteristics				
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°)				
Regulatory Compliance/Certifications  RoHS 2011/65/EU Compliant				



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Electrical Performance			
Frequency, MHz	Attenuation dB/100 ft dB/100 m		Coupling Loss 95%, dB
150	0.22	0.73	76 (78)
450	0.46	1.50	77 (79)
700	0.54	1.76	79 (80)
800	0.55	1.81	75 (77)
900	0.58	1.91	75 (77)
960	0.61	1.98	72 (75)
1700	1.08	3.54	70 (73)
1800	1.13	3.71	67 (71)
1900	1.16	3.82	65 (69)
2000	1.20	3.95	67 (70)
2100	1.26	4.14	65 (69)
2200	1.35	4.42	73 (74)
2400	1.57	5.14	66 (69)
2600	1.90	6.25	63 (67)
2700	2.14	7.03	63 (67)

#### 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
- 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

