

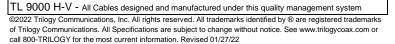
Radiating Cable



Product Specification

50 Ohm Radiating Cable, 7/8" - AR078FV50-3D

Description	Product Number			
Fire Retardant Cable				
7/8", Low-Smoke, Non-Halogenated, Fire Retardant Jacket, Conforms to IEC332-1, IEC332-3C, UL1685-12 FT4/IEEE1202 (NFPA-130), CMG-LS	AR078FV50-3D			
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	None			
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)	0.383 (9.73)			
Diameter Over Dielectric, in (mm)	0.980 (24.89)			
Diameter Over Outer Conductor, in (mm)	1.007 (25.58)			
Maximum Diameter Over Jacket, in (mm)	1.104 (28.04)			
Center Conductor	Solid Copper Tube			
	Dual Slotted			
Outer Conductor	Solid Aluminum Tube			
Electrical Characteristics				
Operating Frequency, MHz	1500 - 3700 MHz			
Peak Power Rating, KW	90			
DC Resistance, Ohms/1,000 ft (1,000 m)				
Center	0.47 (1.54)			
Outer	0.24 (0.78)			
DC Breakdown, kV	6.7			
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	821, 1045, 1645, 2465, 2685, 3010, 3280, 3412			
Mechanical Characteristics	•			
Minimum Bend Radius, in (mm) - Single	13 (330.2)			
Cable Weight, lb/ft (kg/m)	0.33 (0.50)			
Bending Moment, ft lb (N m)	26 (35.1)			
Tensile Strength, lb (kg)	734 (333.6)			
Flat Plate Crush, lb/in (kg/mm)	132 (2.36)			
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 170° (-40° to 77°)			
Regulatory Compliance/Certifications				
RoHS 2011/65/EU Compliant				





Electrical Performance			
Frequency, MHz	Attenuation dB/100 ft dB/100 m		Coupling Loss 95%, dB
1575	1.64	5.38	65 (69)
1700	1.76	5.76	69 (72)
1800	1.84	6.04	68 (71)
1900	1.95	6.39	69 (71)
2000	2.03	6.67	67 (70)
2100	2.13	6.99	65 (69)
2200	2.25	7.38	67 (70)
2300	2.41	7.90	66 (69)
2400	2.63	8.61	67 (69)
2500	2.79	9.16	67 (69)
2600	2.97	9.73	67 (69)
2700	3.23	10.58	66 (68)
3500	5.64	18.50	69 (73)
3600	6.46	21.18	71 (74)
3700	7.14	23.41	68 (72)

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 orthogonal (above 1600 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

