

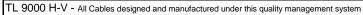
# **Radiating Cable**



# **Product Specification**

### 50 Ohm Radiating Cable, 1/2" - AR012FX50

Description	Product Number			
Fire Retardant Cable				
1/2", Low-Smoke, Non-Halogenated, Fire Retardant Jacket, Conforms to IEC332-1	AR012FX50			
Features & Benefits	•			
100% Made in the USA (Buy America, Title	49 Compliant)			
Fire Retardant Jacket, IEC332-1				
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	Off White			
Physical Dimensions	L			
Center Diameter, in (mm)	0.199 (4.79)			
Diameter Over Dielectric, in (mm)	0.188 (4.78)			
Diameter Over Outer Conductor, in (mm)	0.480 (12.19)			
. , ,	0.512 (13.00)			
Maximum Diameter Over Jacket, in (mm)	0.592 (15.04)			
Center Conductor	Copper-Clad Aluminum			
Outer Conductor	Dual Slotted			
Electrical Characteristics	Solid Aluminum Tube			
Maximum Frequency, GHz				
Peak Power Rating, KW	32			
DC Resistance, Ohms/1,000 ft (1,000 m)	32			
Center	0.46 (1.51)			
Outer	0.52 (1.71)			
DC Breakdown, kV	3.2			
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	1051 - 1065, 1103 - 1106, 2208 - 2213			
Mechanical Characteristics				
Minimum Bend Radius, in (mm) - Single	2 (50.8)			
Cable Weight, lb/ft (kg/m)	0.12 (0.18)			
Bending Moment, ft lb (N m)	7.5 (10.2)			
Tensile Strength, lb (kg)	465 (211)			
Flat Plate Crush, lb/in (kg/mm)	62 (1.11)			
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				
TI 0000 H \/ All 0-bl-s designed and assessfund				



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Electrical Performance			
Frequency, MHz	Attenuation dB/100 m		Coupling Loss 95%, dB
150	0.95	3.12	84 (85)
220	1.18	3.88	84 (85)
450	1.68	5.52	84 (85)
500	1.80	5.90	81 (82)
700	2.24	7.34	87 (88)
800	2.34	7.68	83 (86)
900	2.51	8.22	86 (87)
1000	2.76	9.06	86 (88)
1700	3.59	11.78	88 (89)
1800	3.71	12.16	88 (89)
1900	3.82	12.54	88 (90)
2000	3.98	13.05	89 (90)
2100	4.10	13.43	89 (91)
2200	4.21	13.82	89 (90)
2400	4.39	14.40	86 (89)
2600	4.92	16.14	88 (89)
2700	5.18	16.98	86 (87)

#### 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

