

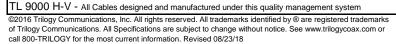
Radiating Cable



Product Specification

50 Ohm Radiating Cable, 1-5/8" - AR158J50

Description	Product Number		
Standard Cable			
1-5/8", Black Polyethylene Jacket	AR158J50		
Features & Benefits			
100% Made in the USA (Buy America, Title	49 Compliant)		
UV Rated for Outdoor Use	·		
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	- Jack		
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)	1.985 (50.42)		
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Center Conductor	Solid Copper Tube Dual Slotted		
Outer Conductor	Solid Aluminum Tube		
Electrical Characteristics	Solid Aldiffillidiff Tube		
Maximum Frequency, GHz	3		
Peak Power Rating, KW	306		
DC Resistance, Ohms/1,000 ft (1,000 m)	300		
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	1360 - 1400		
Mechanical Characteristics			
Minimum Bend Radius, in (mm) - Single	20 (508)		
Cable Weight, lb/ft (kg/m)	0.76 (1.13)		
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 170° (-40° to 77°)		
Regulatory Compliance/Certifications			
RoHS 2011/65/EU Compliant			
TL 9000 H-V - All Cables designed and manufactured	under this quality management system		





Electrical Performance				
Frequency, MHz	Attenuation dB/100 ft dB/100 m		Coupling Loss 95%, dB	
150	0.24	0.79	78 (80)	
450	0.46	1.51	78 (80)	
700	0.62	2.03	83 (85)	
800	0.62	2.03	82 (83)	
900	0.69	2.26	79 (82)	
1000	0.72	2.36	79 (82)	
1700	1.07	3.51	79 (82)	
1800	1.11	3.64	76 (80)	
1900	1.13	3.71	76 (80)	
2000	1.22	4.00	77 (81)	
2100	1.27	4.17	76 (80)	
2200	1.32	4.33	77 (81)	
2400	1.41	4.63	77 (81)	
2600	1.66	5.45	70 (75)	
2700	1.69	5.54	74 (79)	

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 600 MHz) or orthogonal (above 600 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

