

NEW

RADIAX® RXL4.5-1 Coupled Mode 5/8" Cable

The Solution for Multiple Service Wireless Systems

Broadband by design, RADIAX® RXL series coupled mode cables from Andrew can operate at AM (500 kHz), cellular, 3G, wireless LAN (2.4 GHz) frequencies and beyond. System designers and integrators can now optimize the cable size with their design, especially for installations requiring smaller, more flexible cable with lower insertion loss.

RADIAX RXL coupled mode series cables can carry several services at varying frequencies on a single RADIAX cable, eliminating the expense and complexity of several individual cable installations. This multiple frequency capability also allows for faster, simpler, and less expensive system upgrades as new services are added.

RADIAX cables distribute available signal power uniformly throughout the coverage area, eliminating point antenna hot-spots. RADIAX cable systems are also particularly effective for filling in RF nulls in buildings, around corners, in tunnels or other situations where coverage is difficult.

Based on our proven HELIAX® coaxial cable, coupled mode RADIAX cable is made from a corrugated, welded copper outer conductor over a low density foam covering the inner conductor. Holes milled in the corrugation peaks of the outer conductor produce the cable's radiating characteristics.



Features:

- **Multiple services from one cable system:**
 - *Eliminates need for added base stations and extra antennas; reduces cable clutter*
- **Covers a wide range of frequencies**
- **Flexible, easy to install**
- **Lower insertion and link loss**
- **Used successfully world-wide in:**
 - *Tunnels—subways—metros*
 - *Multiband systems*
 - *AM to WLAN bands*

RADIAX® RXL cables: the broadband coverage solution with the future built in.



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Specifications for RADIAX RXL 4.5-1 Coupled Mode Cable

(RXL4.5-1AX—RXL4.5-1RN—RXL4.5-1RNT1)

RF Coverage with spacing to wall 2 inches (5 cm)		
	Attenuation dB/100 ft (dB/100 m)	Coupling Loss at 6.5 ft (2 m)
75 MHz	0.5 (1.7)	63
150 MHz	0.7 (2.3)	70
450 MHz	1.3 (4.1)	74
900 MHz	1.9 (6.2)	76
1800 MHz	2.9 (9.4)	68
2200 MHz	3.2 (10.5)	73

Construction	
Normal size	5/8"
Outer conductor	Copper
Inner conductor	Cu-Clad AL
Maximum diameter over jacket in (mm)	0.865 (21.97)

Mechanical	
Cable weight lb/ft (kg/m)	0.15 (0.22)
Tensile strength lb (kg)	680 (309)
Flat-Plate crush strength lb/in (kg/mm)	57 (1.06)
Minimum bend radius in (mm)	8 (200)
Temperature ratings °C:	Storage -70/+80
(min/max)	Installation -30/+60
	Operating -40/+80

Electrical	
Impedance (ohms)	50
Velocity (%)	89
Outer dc resistance	
ohms/1000 ft (1000 m) ±10%	0.42 (1.37)
Inner dc resistance	
ohms/1000 ft (1000 m) ±10%	0.15 (0.49)
Capacitance, nominal pF/ft (pF/m)	23.2 (76.1)
Inductance, nominal µH/ft (µH/m)	0.057 (0.19)
dc breakdown (Vdc)	5,000
Jacket spark volts (ms)	8,000
Insulation resistance	
(Mohm-min: lengths up to 2000 ft)	100,000
Typical VSWR	1.3

Fire Retardancy Codes

-1RN Fire retardant: Halogen free, low smoke and fume. Smoke Index 50-55 tested in accordance with NES 711 and Toxicity Index 0.5 tested in accordance with NES 713.

-1RNT1 Fire retardant: Single mica tape, low smoke and fume, and halogen free. Complies with IEC 332-1, IEC 332-3C, UL VW1, IEEE 383, and UL 1581.



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