



Laird's Dual-Band TRA24/4900 Series of Phantom Antennas are ideal for WLAN and 4.9 GHz public safety applications. They operate simultaneously at 2.4 GHz and 4.9 GHz and are tough antennas for outdoor or indoor applications. Their revolutionary design measures only 2.3" in height and feature both vertical and horizontal polarization. This gives them the antenna diversity, frequency agility, low visibility, wide bandwidth and low angle radiation patterns that are superior to traditional gain antennas in most applications.

The industry standard NMO mounting socket mates with all of Laird's magnetic, trunk lid, and hole mounts. A threaded permanent stud mount model is also available for vandal-resistant mounting on brackets, panels, ceilings, or any other kind of housing.

## FEATURES AND BENEFITS

- Cross-polarization design ensures uninterrupted transmissions in urban canyons and rural drop-off areas
- Phantom outperforms a 3-dB whip in many applications
- U.S. Patent Nos. 5,977,931 – 6,292,156 and 7,209,096

### ELECTRICAL SPECIFICATIONS

	2400-2500	4900-5850
Operating Frequency (MHz)	2400-2500	4900-5850
Gain (dBi)	0.7	0.9
Elevation Beamwidth at Half -Power	30°	65°
Azimuth Beamwidth at Half-Power	130°	230°
VSWR – Max	2:1 (with 6 ft. of ATX195)	3:1 (without cable)
Nominal Impedance (Ohms)	50	
Max Power - Ambient 25°C (W)	100	
Polarization	Vertical	

### MECHANICAL SPECIFICATIONS

Dimensions – diameter x height – mm (inches)	36.5 x 58.4 (1.44 x 2.3)
Weight – kg (lbs.)	0.113 (0.25)
Cable Type	None
Connector	NMO or Permanent Mount w/ N Female Connector

### ENVIRONMENTAL SPECIFICATIONS

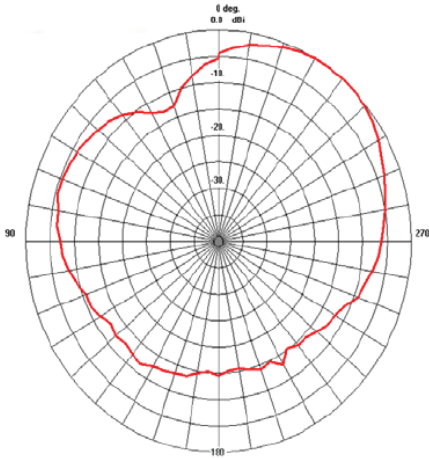
Operating Temperature – °C (°F)	-40 to +85°C (-40 to +185°F)
Material Substance Compliance	RoHS Compliant
Ingress Protection	IP67

### CONFIGURATION

PART NUMBER	DESCRIPTION
TRA24/49003	NMO Mount, White Radome
TRAB24/49003	NMO Mount, Black Radome
TRA24/49003P	P-Mount, White Radome
TRAB24/49003P	P-Mount, Black Radome

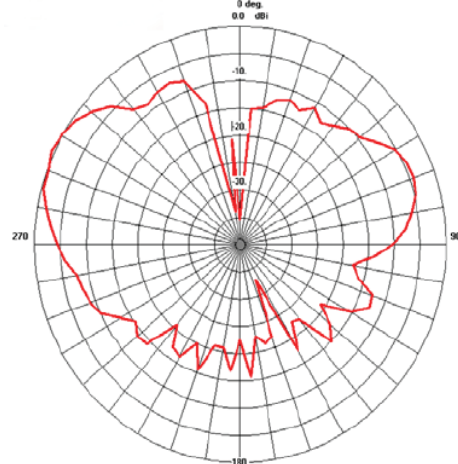
RADIATION PATTERNS

@ 0.2 dBi Gain



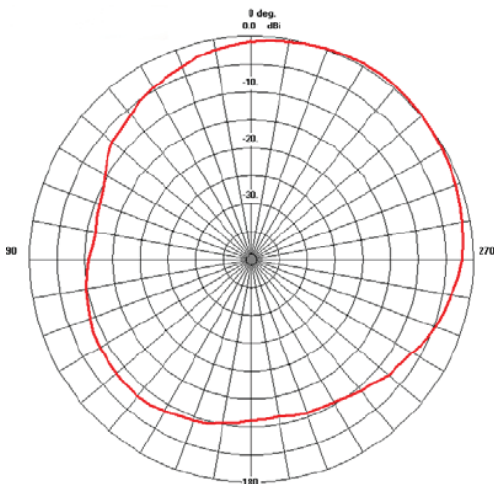
Max Gain: 0.2 dBi  
Average Gain: -5.9 dBi  
Max Angle: 325.0°

@ 0.6 dBi Gain



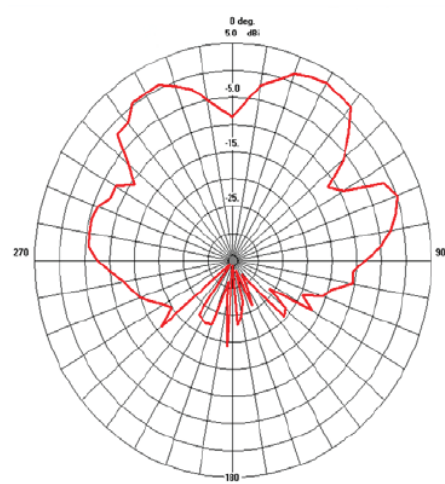
Max Gain: 0.6 dBi  
Average Gain: -7.6 dBi  
Max Angle: 295.0°

@ 0.7 dBi Gain



Max Gain: 0.7 dBi  
Average Gain: -3.9 dBi  
Max Angle: 325.0°

@ 2.9 dBi Gain



Max Gain: 2.9 dBi  
Average Gain: -3.9 dBi  
Max Angle: 325.0°



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