Laird TECHNOLOGIES

Innovative **Technology** for a **Connected** World

Phantom® Antennas
TRA(B)24/49003(P)

DUAL-BAND PHANTOM® ANTENNA IS IDEAL FOR WLAN AND 4.9 GHZ PUBLIC SAFETY APPLICATIONS

Laird Technologies' unique patented Phantom® dual-band antenna operates simultaneously at 2.4 GHz and 4.9 GHz and is a tough antenna for outdoor or indoor applications. The revolutionary design measures only 2.3" and features both vertical and horizontal polarization. This gives the antenna diversity, frequency agility, low visibility, wide bandwidth and a low angle radiation pattern that is superior to traditional gain antennas in most applications. The industry standard NMO mounting socket mates with all Laird Technologies' 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 RoHS

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

MARKETS

- Public safety
- Transportation
- Utility
- Military mobile
- Fixed radio applications

global solutions: local support™

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SPECIFICATIONS

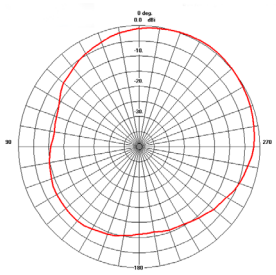
ELECTRICAL	
Frequency Band	ISM, 2.4-2.5 GHz / 4.9-5.85 GHz
Frequency Range (Test Frequency at Peak)	2400 MHz 4900 MHz
Peak Gain (dBi) Azimuth Cut, Phi=0°	0.7 0.9
Peak Gain (dBi) Elevation Cut, Phi=90°	0.6 5.7
Elevation Beamwidth at Half-Power	30° 65°
Azimuth Beamwidth at Half-Power	130° 230°

MECHANICAL	
Antenna Dimensions	1.44"(36.5 mm)dia x 2.3"(58.4 mm)H
Weight (Mass)	0.25 lb (113.4 g)

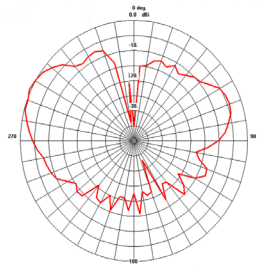
TECHNICAL DATA	
Pattern	Omni-Directional
Maximum Power	100W
Nominal Impedance	50 ohm
Polarization	Vertical and Horizontal
VSWR	<2:1 (includes 6ft of ATX195) <3:1 (no coaxial cable)
Termination	NMO and Permanent Mount w/ N Female Connector
F/B Ratio	NA
Mounting Hardware includes	NA (NMO mount sold separately)
Coaxial Cable Type & Length	None
Lightning Protection	NA
Operating Temperature	-40°C to +85°C

MODEL AND ORDERING INFORMATION

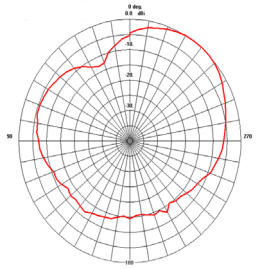
MODEL	DESCRIPTION
TRA24/49003	NMO Mount, White Radome
TRAB24/49003	NMO Mount, Black Radome
TRA24/49003P	P-Mount, White Radome
TRAB24/49003P	P-Mount, Black Radome



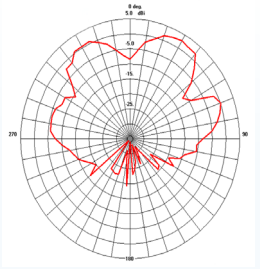
Max Gain: 0.7 dBi
Average Gain: -3.9 dBi
Max Angle: 325.0°



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



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



Max Gain: 2.9 dBi
Average Gain: -4.7 dBi
Max Angle: 30.0°

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