



Smart Technology. Delivered.

# Phantom® Antennas - UHF TRA(B)(T)2100



## PATENTED WHIPLESS PHANTOM® UHF ANTENNA'S FEATURE TRUE FIELD DIVERSITY DESIGN

Laird's unique patented Phantom® is a tough antenna for outdoor or indoor applications. Measuring only 3.5" tall, the Phantom® UHF antenna's revolutionary design features field diversity with both vertical and horizontal polarization components. 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'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.

The Phantom® patented technology is beneficial when high performance is desired and extreme ruggedness and low profile is required.

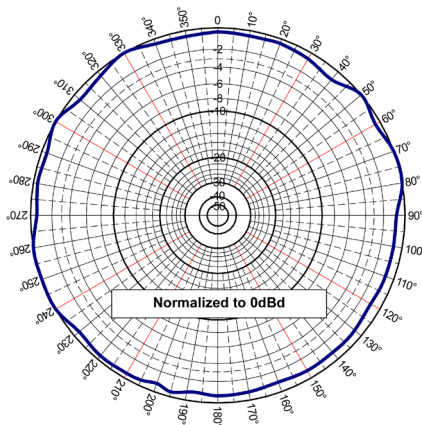
### FEATURES

- The antenna is available in both custom tune and field tunable options
- True field diversity design ensures uninterrupted transmissions in urban canyons and rural drop off areas
- Phantom out performs a 3 dB 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

### ANTENNA PATTERNS



Azimuthal Pattern (Y, Z, or E-plane)

Americas: +1.847 839.6907  
 IAS-AmericasEastSales@lairdtech.com  
 Europe: +44.1628.858941  
 IAS-EUSales@lairdtech.com  
 Asia: +86.21.5855.0827.127  
 IAS-AsiaSales@lairdtech.com  
**www.lairdtech.com**

### SPECIFICATIONS

ELECTRICAL	
Frequency Range	210-225 MHz
Frequency Bandwidth	2.2 MHz @VSWR < 2.0:1
VSWR	< 2.0:1
Return Loss	-10 dB min
Nominal Gain	Unity 3 dB-MEG (elevation = 0°) 5 dBi (elevation = 45°) -11 dBi (elevation = 90°)
Maximum Power	60W
Nominal Impedance	Ω50
Polarization	Vertically polarized
Pattern	Omnidirectional
Azimuthal Angle Coverage	360°
Lightning Protection	AC Ground
Cable	None
Termination	NMO
Tuning	Adhesive Tuning Disk

MECHANICAL	
Size	Width = 3 – 1/4" Height = 3 – 1/2"
Weight	0.25 lbs
Finish	GE X-17 ABS
Color	White (Black also available)

### MODEL AND ORDERING INFORMATION

MODEL	DESCRIPTION	TUNING OPTIONS
TRA2100	210-225 MHz VHF Phantom ¼ NMO, White	Custom tune
TRAB2100	210-225 MHz VHF Phantom ¼ NMO, Black	Custom tune
TRAT2100	210-225 MHz VHF Phantom ¼ NMO, White	Field tunable
TRABT2100	210-225 MHz VHF Phantom ¼ NMO, Black	Field tunable

Mounting Designed To:  
4' x 4' metallic ground plane mobile  
applications

Americas: +1.847.839.6907  
IAS-AmericasEastSales@lairdtech.com

Europe: +44.1628.858941  
IAS-EUSales@lairdtech.com

Asia: +86.21.5855.0827.127  
IAS-AsiaSales@lairdtech.com

[www.lairdtech.com](http://www.lairdtech.com)

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