



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.

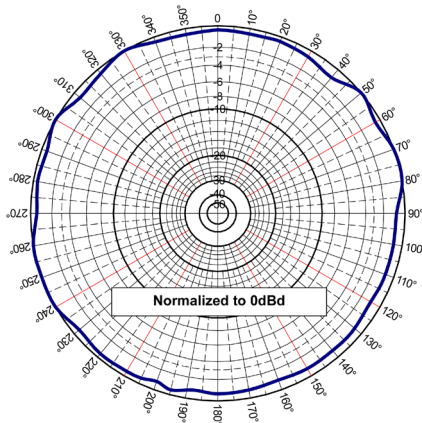
### FEATURES

- 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 ¾ NMO, White	Custom tune
TRAB2100	210-225 MHz VHF Phantom ¾ NMO, Black	Custom tune
TRAT2100	210-225 MHz VHF Phantom ¾ NMO, White	Field tunable
TRABT2100	210-225 MHz VHF Phantom ¾ 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)

ANT-DS-TRABT2100 0115

Any information furnished by Laird Inc. and its agents is believed to be accurate and reliable. All specifications are subject to change without notice. Responsibility for the use and application of Laird materials rests with the end user, since Laird and its agents cannot be aware of all potential uses. Laird makes no warranties as to the fitness, merchantability or suitability of any Laird materials or products for any specific or general uses. Laird shall not be liable for incidental or consequential damages of any kind. All Laird products are sold pursuant to the Laird Terms and Conditions of sale in effect from time to time, a copy of which will be furnished upon request. © Copyright 2015 Laird Inc. All Rights Reserved. Laird, Laird Technologies, the Laird Logo, and other marks are trade marks or registered trade marks of Laird Inc. or an affiliate company thereof. Other product or service names may be the property of third parties. Nothing herein provides a license under any Laird or any third party intellectual property rights.