



Laird's unique patented Phantom<sup>®</sup> antenna is ideal for cell, GSM, PCE, WIFI, 802.11 and Bluetooth wireless applications. Measuring only 2.7" tall, the Phantom 800 MHz to 5.8 GHz antenna models' revolutionary design features a robust IP67 rated mechanical solution with frequency agility, low visibility, wide bandwidth and a low angle radiation pattern that is superior to traditional gain antennas in most applications, both outdoor and indoor.

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.

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

#### FEATURES AND BENEFITS

- A low profile mechanically robust high-power solution.
- Outperforms a 3-dB whip in many applications
- U.S. Patent Nos. 5,977,931 – 6,292,156 and 7,209,096

| ELECTRICAL SPECIFICATIONS                    |                                                               |
|----------------------------------------------|---------------------------------------------------------------|
| Operating Frequency (MHz)                    | 806-870/821-896/890-960/902-928/1850-1990/2400-2500/4900-6000 |
| VSWR                                         | < 2.1                                                         |
| Gain (dBi)                                   | 3                                                             |
| Max Power - Ambient 25°C (W)                 | 100                                                           |
| Nominal Impedance (Ohms)                     | 50                                                            |
| Polarization                                 | Vertical                                                      |
| Pattern                                      | Omnidirectional                                               |
| Half-Power Beamwidth (Elevation° x Azimuth°) | 130 x 360                                                     |

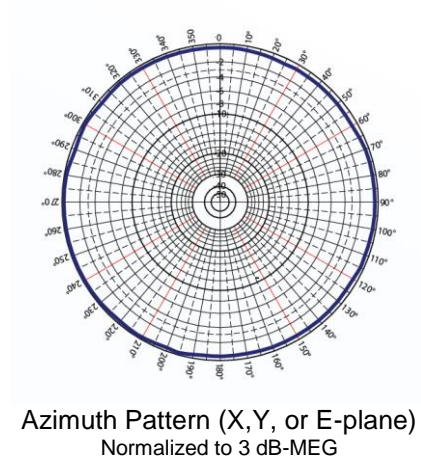
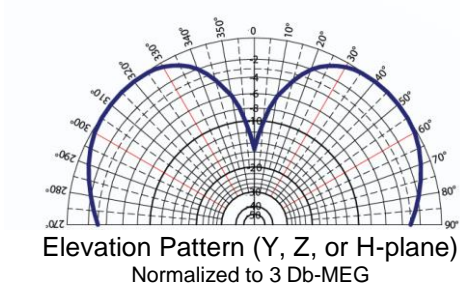
| MECHANICAL SPECIFICATIONS                    |                                                                     |
|----------------------------------------------|---------------------------------------------------------------------|
| Dimensions – diameter x height – mm (inches) | 36.52 x 69.85 (1.438 x 2.75)                                        |
| Weight – kg (lbs.)                           | 0.078 (0.173)                                                       |
| Material                                     | SABIC Lexan                                                         |
| Color                                        | Black or White                                                      |
| Mounting Information                         | NMO (PN: MB8, MAB8) – Sold separately                               |
| Noise Suppressor                             | BlackHawk NS1535                                                    |
| Operating Temperature – °C (°F)              | 1-35 VOLT, 15 Amp – Sold separately<br>-40 to +85°C (-40 to +185°F) |

#### CONFIGURATION

| PART NUMBER | DESCRIPTION                                                                                 |
|-------------|---------------------------------------------------------------------------------------------|
| TRA8063     | 806-870 MHz 3 dBi Phantom <sup>®</sup> ¾ NMO, White Radome                                  |
| TRA8213     | 821-896 MHz 3 dBi Phantom <sup>®</sup> ¾ NMO, White Radome                                  |
| TRA8903     | 890-960 MHz 3 dBi Phantom <sup>®</sup> ¾ NMO, White Radome                                  |
| TRA9023     | 902-928 MHz 3 dBi Phantom <sup>®</sup> ¾ NMO, White Radome                                  |
| TRA18503    | 1.85 - 1.99 GHz 3 dBi Phantom <sup>®</sup> ¾ NMO, White Radome                              |
| TRA24003    | 2.4 – 2.5 GHz 3 dBi Phantom <sup>®</sup> ¾ NMO, White Radome                                |
| TRA58003    | 4.9 – 6.0 GHz 3 dBi Phantom <sup>®</sup> ¾ NMO, White Radome                                |
| TRADCAGP    | G - Drop ceiling antenna adaptor for P-mount Phantom w/ 6"x6"x0.016" ground plane           |
| Sealtube3   | Heat shrink tubing 3 in. x 1 in. DIA install (use for jaw protector on installation wrench) |

**Note:** Add "B" to model number for black radome. Example: TRAB8063  
Add "P" to model number for Permanent Mount. Example: TRA8063P

ANTENNA PATTERNS



✓RoHS

Laird warrants to the original end user customer of its products that its products are free from defects in material and workmanship. Subject to conditions and limitations Laird will, at its option, either repair or replace any part of its products that prove defective because of improper workmanship or materials. This limited warranty is in force for the useful lifetime of the original end product into which the Laird product is installed. Useful lifetime of the original end product may vary but is not to exceed five (5) years from the original date of the end product purchase.

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 2019 Laird Inc. All Rights Reserved. Laird, Laird Technologies, the Laird Logo, and other marks are trademarks or registered trademarks 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.

sales@lairdconnect.com  
support@lairdconnect.com  
www.lairdconnect.com

