



Smart Technology. Delivered.

# Phantom®

## 800 MHz-5.8GHz Antennas



### PHANTOM® ANTENNA IS IDEAL FOR CELL, GSM, PCE, WIFI, 802.11 AND BLUETOOTH WIRELESS APPLICATIONS

Laird's unique patented Phantom® is a tough low-profile antenna for outdoor or indoor applications. Measuring only 2.7" tall, the Phantom 800 MHz to 5.8 GHz antenna models' 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 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® patented technology is beneficial when high performance is desired and extreme ruggedness and low profile is required.

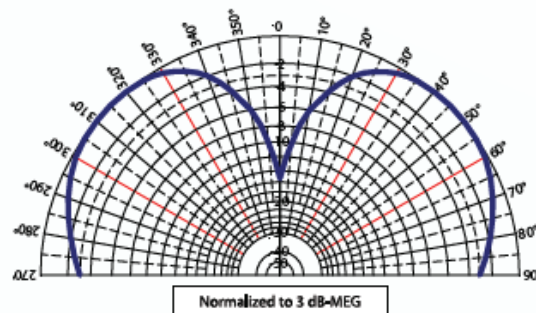
#### FEATURES

- True Field Diversity 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

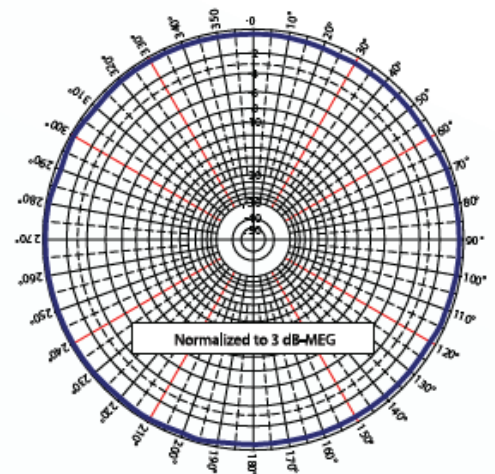
#### MARKETS

- Cell
- GSM and PCS
- WiFi
- 802.11
- Bluetooth wireless applications

### ANTENNA PATTERNS



Elevation Pattern (Y, Z, or H-plane)



Azimuth Pattern (X, Y, or E-plane)

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### SPECIFICATIONS

| ELECTRICAL                                   |                              |
|----------------------------------------------|------------------------------|
| VSWR                                         | <2.1                         |
| Nominal Gain                                 | 3 dB- M.E.G.                 |
| Maximum Power                                | 100 W                        |
| Nominal Impedance                            | 50 Ω                         |
| Polarization                                 | Vertical & Horizontal        |
| Pattern                                      | Omnidirectional              |
| Half-Power Beamwidth (Elevation° x Azimuth°) | 130° x 360                   |
| Coaxial Cable Length & Type                  | None                         |
| Terminations                                 | NMO Socket or, type N-Female |

| MECHANICAL           |                                                                                |
|----------------------|--------------------------------------------------------------------------------|
| Color                | Black or White                                                                 |
| Height (initially)   | 2 ¾"                                                                           |
| Diameter             | 1.438"                                                                         |
| Weight               | 0.173 lbs                                                                      |
| Material             | ABS                                                                            |
| Mounting Information | NMO (PN: MB8, MAB8)<br>Sold Separately                                         |
| Noise Suppressor     | BlackHawk NS1535<br>1-35 VOLT, 15 Amp<br>Noise Suppressor<br>(Sold Separately) |

#### Permanent Mounting Option:

Please order by antenna model and insert letter "P" to indicate permanent mounting option (TRA8063P).

### MODEL AND ORDERING INFORMATION

| MODEL     | DESCRIPTION                                                                           |
|-----------|---------------------------------------------------------------------------------------|
| TRA8063   | 806-870 MHz 3 dB-MEG Phantom® ¾ NMO, White Radome                                     |
| TRA8213   | 821-896 MHz 3 dB-MEG Phantom® ¾ NMO, White Radome                                     |
| TRA8903   | 890-960 MHz 3 dB-MEG Phantom® ¾ NMO, White Radome                                     |
| TRA9023   | 902-928 MHz 3 dB-MEG Phantom® ¾ NMO, White Radome                                     |
| TRA18503  | 1.85 - 1.99 GHz 3dB-MEG Phantom® ¾ NMO, White Radome                                  |
| TRA24003  | 2.4 – 2.5 GHz 3 dB-MEG Phantom® ¾ NMO, White Radome                                   |
| TRA58003  | 4.9- 6.0 GHz 3 dB-MEG Phantom® ¾ NMO, White Radome                                    |
| TRADCAGP  | G - Drop ceiling antenna adaptor for P-mount Phantom w/<br>6"x6"x0.016" ground plane  |
| Sealtube3 | Heat shrink tubing 3"x1"DIA install<br>(use for jaw protector on installation wrench) |

Add "B" to model number for black radome. Example: TRAB8063

Add "P" to model number for Permanent Mount. Example: TRA8063P