DUAL-BAND PHANTOM® ANTENNA IS IDEAL FOR CELLULAR AND PCS APPLICATIONS

Laird’s unique patented Phantom® multi band cellular antenna operates simultaneously on seven bands and is a tough antenna for outdoor or indoor applications. The revolutionary design measures only 2.3”. The patented field Phantom® technology ensures uninterrupted voice and data transmissions in urban canyons and rural drop off areas.

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.

FEATURES

- Operates simultaneously on 7 bands
- AMPS 806-896 MHz
- GSM 890-960 MHz
- GPS 1575.42 MHz
- DCS 1710-1880 MHz
- PCS 1850-1990 MHz
- UMTS 1900-2170 MHz
- ISM (BT) 2.4 - 2.5 GHz
- Patented Phantom® technology ensures uninterrupted voice and data transmissions in urban canyons and rural drop off areas
- U.S. Patent Nos. 5,977,931 – 6,292,156; other patents pending

MARKETS

- Mobile Radio
- Fixed Station
- In-Building Wireless
## SPECIFICATIONS

<table>
<thead>
<tr>
<th></th>
<th>AMPS</th>
<th>GSM</th>
<th>GPS</th>
<th>DCS</th>
<th>PCS</th>
<th>UMTS</th>
<th>ISM</th>
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<tbody>
<tr>
<td>Frequency Range MHz</td>
<td>806-896</td>
<td>890-960</td>
<td>1575.42</td>
<td>1710-1880</td>
<td>1850-1990</td>
<td>1900-2170</td>
<td>2400-2500</td>
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<tr>
<td>Peak Gain dBi</td>
<td>5.9</td>
<td>5.8</td>
<td>5.1</td>
<td>4.2</td>
<td>4.2</td>
<td>4.4</td>
<td>3.0</td>
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<td>Polarization</td>
<td>Vertical</td>
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<tr>
<td>Impedance</td>
<td>50 Ω</td>
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<tr>
<td>Input Power</td>
<td>100 watts</td>
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<td></td>
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<tr>
<td>Input Connection</td>
<td>&lt; 2:1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>&lt;2.5:1</td>
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<tr>
<td>Dimensions</td>
<td>1.44&quot; wide x 2.30&quot; tall (NMO), 1.44&quot; x 3.15&quot; tall (P-mount)</td>
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<tr>
<td>Radome Material</td>
<td>ABS</td>
<td></td>
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<tr>
<td>Weight</td>
<td>.15 lb (NMO) and .25 lb (P-mount)</td>
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</table>

## MODEL AND ORDERING INFORMATION

<table>
<thead>
<tr>
<th>MODEL</th>
<th>DESCRIPTION</th>
<th>MOUNT</th>
<th>COLOR</th>
<th>RADOME HEIGHT</th>
<th>WEIGHT</th>
<th>CONNECTOR</th>
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</thead>
<tbody>
<tr>
<td>TRAB806/17103</td>
<td>Multi-Band Phantom®</td>
<td>NMO</td>
<td>Black</td>
<td>2.30&quot;</td>
<td>.15 lbs</td>
<td>NMO</td>
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<tr>
<td>TRAB806/17103P</td>
<td>Multi-Band Phantom®</td>
<td>Permanent</td>
<td>Black</td>
<td>2.30&quot;</td>
<td>.25 lbs</td>
<td>N Female</td>
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<td>TRADCA</td>
<td>Drop ceiling antenna adaptor for P-mount Phantom</td>
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<tr>
<td>TRADCAGP</td>
<td>Drop ceiling antenna adaptor for P-mount Phantom with 6” x 6” x .016” ground plane</td>
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</table>
**ANTENNA PATTERNS**

**Azimuthal (X, Y or E-Plane)**

**Elevation (Y, Z or H-Plane)**

**AMPS / GSM900**
- 880-960 MHz
- Test Freq = 920 MHz
- Peak Gain: 5.8 dBi

**GSM1800**
- 1710-1880 MHz
- Test Freq = 1795 MHz
- Peak Gain: 4.2 dBi

**UMTS**
- 1900-2170 MHz
- Test Freq = 2035 MHz
- Peak Gain: 4.4 dBi

**ISM / BT / Wifi**
- 2400-2500 MHz
- Test Freq = 2450 MHz
- Peak Gain: 3.0 dBi
VSWR of TRA(B)806/17103(P)

TRA(B)806/17103(P) Typical VSWR sweeps

Cell / GSM900 Frequency Range 806-960 MHz (VSWR <2:1)
Marker 1: 1.9951 to 1 @ 806 MHz
Marker 2: 1.1915 to 1 @ 960 MHz

GPS Frequency 1575 MHz (VSWR <2:1)
Marker 3: 1.7206 to 1 @ 1575 MHz

DCS / GSM1800 / UMTS / WiFi Frequency Range 1710-2500 MHz (VSWR <2:1)
Marker 4: 1.3282 to 1 @ 1710 MHz
Marker 5: 2.6568 to 1 @ 2500 MHz

6/30/2006