



Laird's Phantom® UHF antenna outperforms conventional mobile antennas in many indoor and outdoor applications. Measuring only 86.4 mm (3.4 in.) tall, the Phantom UHF antenna's revolutionary design features vertical polarization components. The Phantom provides 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 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 AND BENEFITS

- Phantom® outperforms a 3dB whip in many applications
- U.S. Patent Nos. 5,977,931 – 6,292,156 and 7,209,096

#### ELECTRICAL SPECIFICATIONS

| Operating Frequency (MHz)    | 300-305                          | 380-400 | 406-425 | 410-430 | 430-450 | 450-470 | 470-490 | 490-512 |
|------------------------------|----------------------------------|---------|---------|---------|---------|---------|---------|---------|
| Gain (dBi)                   | 3                                |         |         |         |         |         |         |         |
| VSWR*                        | <1.5:1 @ 10 MHz, <2.0:1 @ 20 MHz |         |         |         |         |         |         |         |
| Nominal Impedance (Ohms)     | 50                               |         |         |         |         |         |         |         |
| Max Power - Ambient 25°C (W) | 100                              |         |         |         |         |         |         |         |
| Radiation Pattern            | Omnidirectional                  |         |         |         |         |         |         |         |
| Polarization                 | Vertical                         |         |         |         |         |         |         |         |

\*Measured on a 0.61 m x 0.61 m (2 ft x 2 ft) ground plane

#### MECHANICAL SPECIFICATIONS

|  |                               |
|--|-------------------------------|
| Dimensions – diameter x height – mm (inches) | 36.53 x 82.55 (1.438 x 3.25)  |
| Weight – kg (lbs.)                           | .095 x (.21)                  |
| Cable Type                                   | None                          |
| Radome Material                              | SABIC Lexan                   |
| Connector Type                               | NMO/ P-Mount option available |

#### ENVIRONMENTAL SPECIFICATIONS

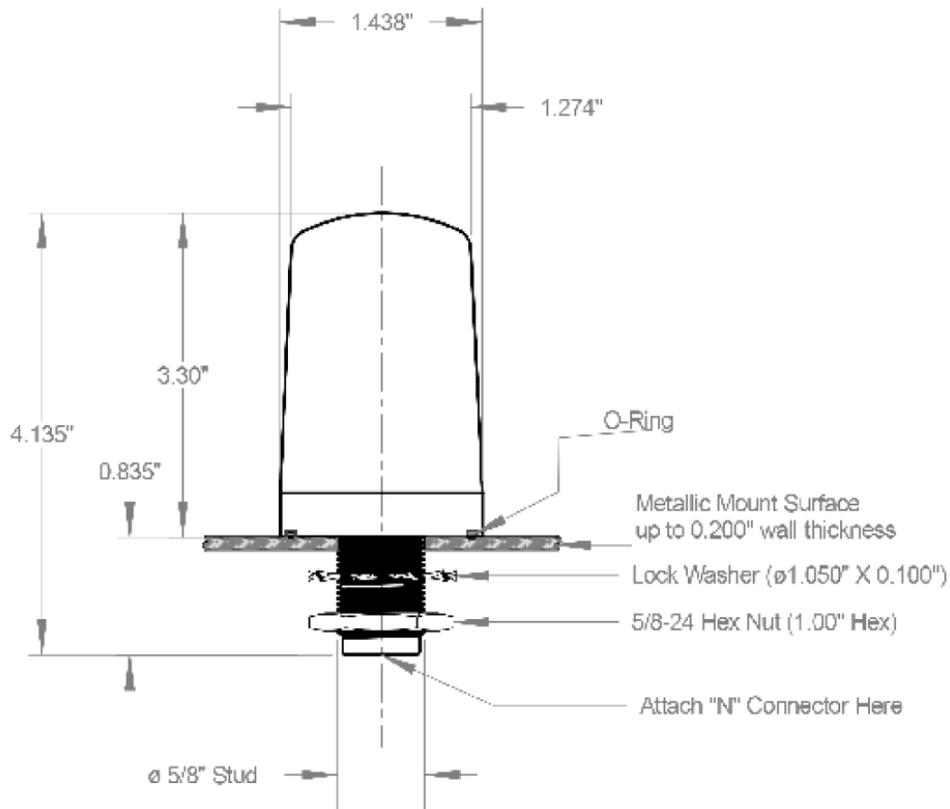
|   |                    |
|---|--------------------|
| Operating Environment (Indoor or Outdoor) | Indoor and Outdoor |
| Wind Survival – km/hr (mph)               | 210 (125)          |
| Material Substance Compliance             | RoHS               |
| Ingress Protection                        | IP67               |

#### CONFIGURATION

**Note:** To replace NMO mount with a permanent mount, add "P" to the end of any part number. (e.g. TRA3003P).

| PART NUMBER | DESCRIPTION   | RADOME COLOR | CONNECTOR   |
|-------------|---|--------------|-------------|
| TRA3003     | 300-305 MHz 3 dBi Phantom®  | White        | ¾ NMO Mount |
| TRAB3003    | 300-305 MHz 3 dBi Phantom®  | Black        | ¾ NMO Mount |
| TRA3803     | 380-400 MHz 3 dBi Phantom®  | White        | ¾ NMO Mount |
| TRAB3803    | 380-400 MHz 3 dBi Phantom®  | Black        | ¾ NMO Mount |
| TRA4063     | 406-425 MHz 3 dBi Phantom®  | White        | ¾ NMO Mount |
| TRAB4063    | 406-425 MHz 3 dBi Phantom®  | Black        | ¾ NMO Mount |
| TRA4103     | 410-430 MHz 3 dBi Phantom®  | White        | ¾ NMO Mount |
| TRAB4103    | 410-430 MHz 3 dBi Phantom®  | Black        | ¾ NMO Mount |
| TRA4303     | 430-450 MHz 3 dBi Phantom®  | White        | ¾ NMO Mount |
| TRAB4303    | 430-450 MHz 3 dBi Phantom®  | Black        | ¾ NMO Mount |
| TRA4503     | 450-470 MHz 3 dBi Phantom®  | White        | ¾ NMO Mount |
| TRAB4503    | 450-470 MHz 3 dBi Phantom®  | Black        | ¾ NMO Mount |
| TRA4703     | 470-490 MHz 3 dBi Phantom®  | White        | ¾ NMO Mount |
| TRAB4703    | 470-490 MHz 3 dBi Phantom®  | Black        | ¾ NMO Mount |
| TRA4903     | 490-512 MHz 3 dBi Phantom®  | White        | ¾ NMO Mount |
| TRAB4903    | 490-512 MHz 3 dBi Phantom®  | Black        | ¾ NMO Mount |
| Sealtube3   | Heat Shrink 3"x1" DIA Elite Install (jaw protector on installation bench) | N/A          | N/A         |

MECHANICAL DRAWING



**✓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