

# Laird

TECHNOLOGIES®



global solutions :  
local support.™

| Vehicular Antennas



Laird Technologies is the world-leader in the design and supply of customized performance-critical products for wireless and other advanced electronic applications. Laird Technologies partners with its customers to help find solutions for applications in various industries such as:

Aerospace

Automotive Electronics

Computers

Consumer Electronics

Data Communications

Medical Equipment

Military

Network Equipment

Telecommunications

Laird Technologies offers its customers unique product solutions, dedication to research and development and a seamless network of manufacturing and customer support facilities located all across the globe.

**global solutions :**  
**local support™**

[www.lairdtech.com](http://www.lairdtech.com)

## Contents

|  |    |
|--|----|
| Introduction.....                                | 2  |
| <b>Phantom®</b>                                  |    |
| Phantom®.....                                    | 3  |
| Phantom Elite®.....                              | 6  |
| <b>Traditional Mobile</b>                        |    |
| Mobile Load Coil.....                            | 8  |
| Wideband.....                                    | 10 |
| A-Base.....                                      | 11 |
| Quarterwave.....                                 | 12 |
| Dual Band - VHF and UHF.....                     | 13 |
| Discadoo®.....                                   | 13 |
| Elevated Feed Point.....                         | 13 |
| Tuf Duck® Portables.....                         | 14 |
| <b>GPS</b>                                       |    |
| Single band GPS.....                             | 16 |
| Dual and Tri-band GPS.....                       | 18 |
| <b>Mounts, Accessories, Cable and Connectors</b> |    |
| Mobile Mounts.....                               | 20 |
| Magnetic Mounts.....                             | 22 |
| Mobile to Base Converter.....                    | 22 |
| Mount Kits and Accessories.....                  | 23 |
| Cables and Connectors.....                       | 26 |
| NMO Mount Antenna Guide.....                     | 28 |

### What's New

#### 700 MHz Trunking Radio Antennas

|                             |    |
|-----------------------------|----|
| Phantom.....                | 4  |
| Phantom Elite.....          | 7  |
| B-Coil.....                 | 10 |
| A-Base.....                 | 11 |
| Quarterwave.....            | 12 |
| Discadoo.....               | 13 |
| Elevated Feed.....          | 13 |
| Survivor Dual Band GPS..... | 18 |

#### 2.4 GHz Antennas

|                     |    |
|---------------------|----|
| 2.4 GHz A-Base..... | 11 |
|---------------------|----|

#### GPS Antennas

|                      |    |
|----------------------|----|
| Micro GPS.....       | 17 |
| Glass Mount GPS..... | 17 |

## Laird Technologies' Vehicular Antennas

Laird Technologies vehicular land mobile radio antennas are the industry standard for public safety agencies, fleet and transportation networks. From 27 MHz to 5.8 GHz, Laird Technologies designs and manufactures a wide variety of mobile antennas with a multitude of mounting options.



The patented whip-less Phantom® and Phantom Elite® low-profile antenna family has no equal with true field diversity performance. The patented technology utilizes dual polarization for unsurpassed performance in urban canyons as well as rural drop off areas. Laird Technologies also offers traditional mobile coil antennas, value conscious quarterwaves and A-base products with superior workmanship and design features. A wide array of specialty antennas including dual bands, elevated feed point and wide band models are also available. Tuf Duck® portable antennas have been the standard for two-way radio applications since their introduction over twenty-five years ago. Multiple cable options, connectors, mounts and bracket products provide a complete antenna system.

## Patented Phantom® antennas set industry standard that cannot be duplicated

The patented Phantom® series is a tough antenna for outdoor or indoor applications. Available in standard, low profile and stealth Phantom Elite® models, all antennas feature field diversity with both vertical and horizontal polarization components. This gives the antennas diversity, frequency agility, low visibility, wide bandwidth and a low angle radiation pattern that is superior to traditional gain antennas in most applications.

- True Field Diversity
- U.S. Patent No. 5,977,931 and 6,292,156 - do not be fooled by imitators that have no gain or field diversity
- Available in VHF, UHF, 800/900, 2.4, 5.8 GHz, and multi-band cellular and GPS frequencies
- 3dB MEG outperforms a conventional 3dB antenna in many applications
- Available in standard NMO, permanent, direct N female and ceiling tile mounts
- Less susceptible to damage
- Thousands in service worldwide



TRAB4503

TRA4503P

### Phantom Antenna



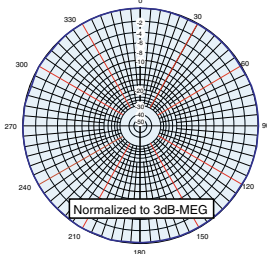
| Model                           | Description                 | Frequency Range | Gain  | Color | Radome Height | Max. Power |
|---------------------------------|-----------------------------|-----------------|-------|-------|---------------|------------|
| <b>VHF Tunable Unity Models</b> |                             |                 |       |       |               |            |
| TRAT1420                        | Phantom VHF Antenna         | 142-160 MHz     | Unity | White | 3.5"          | 60 watt    |
| TRABT1420                       | Phantom VHF Antenna         | 142-160 MHz     | Unity | Black | 3.5"          | 60 watts   |
| TRAT1500                        | Phantom VHF Antenna         | 150-168 MHz     | Unity | White | 3.5"          | 60 watts   |
| TRABT1500                       | Phantom VHF Antenna         | 150-168 MHz     | Unity | Black | 3.5"          | 60 watts   |
| TRABT1500P                      | Phantom VHF Antenna P. Mt.* | 150-168 MHz     | Unity | Black | 3.5"          | 60 watts   |
| TRAT1560                        | Phantom VHF Antenna         | 156-172 MHz     | Unity | White | 3.5"          | 60 watts   |
| TRABT1560                       | Phantom VHF Antenna         | 156-172 MHz     | Unity | Black | 3.5"          | 60 watts   |
| TRABT1560P                      | Phantom VHF Antenna P. Mt.* | 156-172 MHz     | Unity | Black | 3.5"          | 60 watts   |
| TRA2100                         | Phantom VHF Antenna         | 210-225 MHz     | Unity | White | 2.9"          | 100 watts  |
| TRAB2100                        | Phantom VHF Antenna         | 210-225 MHz     | Unity | Black | 2.9"          | 100 watts  |

\*Add .625" overall height for all P mount models



TRAT1420

 **Patented  
Field Diversity™**



TRA4303

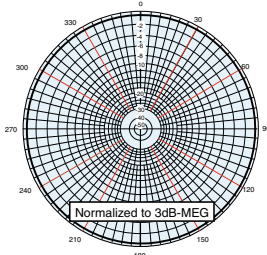


TRAB7603  
TRA7603P

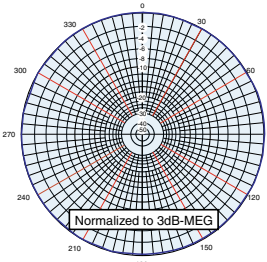
**NEW**

## Trunking Radio Band Phantom

- Low profile field diversity antenna
- 760 - 870 MHz



TRA8063N



TRAB24003N

| Model  | Description                 | Frequency Range | Gain     | Color | Radome Height | Max. Power |
|--|-----------------------------|-----------------|----------|-------|---------------|------------|
| <b>UHF 3 dB-MEG (Mean Effective Gain) Models -</b> |                             |                 |          |       |               |            |
| TRA4103  | Phantom UHF Antenna         | 410-430 MHz     | 3-dB MEG | White | 3.40"         | 150 watts  |
| TRAB4103   | Phantom UHF Antenna         | 410-430 MHz     | 3-dB MEG | Black | 3.40"         | 150 watts  |
| TRA4303  | Phantom UHF Antenna         | 430-450 MHz     | 3-dB MEG | White | 3.40"         | 150 watts  |
| TRAB4303   | Phantom UHF Antenna         | 430-450 MHz     | 3-dB MEG | Black | 3.40"         | 150 watts  |
| TRA4303P   | Phantom UHF Antenna P. Mt.* | 430-450 MHz     | 3-dB MEG | White | 3.40"         | 150 watts  |
| TRAB4303P  | Phantom UHF Antenna P. Mt.* | 430-450 MHz     | 3-dB MEG | Black | 3.40"         | 150 watts  |
| TRA4500N   | Phantom UHF Antenna NGP     | 450-470 MHz     | 3-dB MEG | White | 3.40"         | 150 watts  |
| TRAB4500N  | Phantom UHF Antenna NGP     | 450-470 MHz     | 3-dB MEG | Black | 3.40"         | 150 watts  |
| TRA4503  | Phantom UHF Antenna         | 450-470 MHz     | 3-dB MEG | White | 3.40"         | 150 watts  |
| TRAB4503   | Phantom UHF Antenna         | 450-470 MHz     | 3-dB MEG | Black | 3.40"         | 150 watts  |
| TRA4503P   | Phantom UHF Antenna P. Mt.* | 450-470 MHz     | 3-dB MEG | White | 3.40"         | 150 watts  |
| TRAB4503P  | Phantom UHF Antenna P. Mt.* | 450-470 MHz     | 3-dB MEG | Black | 3.40"         | 150 watts  |
| TRA4703  | Phantom UHF Antenna         | 470-490 MHz     | 3-dB MEG | White | 3.40"         | 150 watts  |
| TRAB4703   | Phantom UHF Antenna         | 470-490 MHz     | 3-dB MEG | Black | 3.40"         | 150 watts  |
| TRA4703P   | Phantom UHF Antenna P. Mt.* | 470-490 MHz     | 3-dB MEG | White | 3.40"         | 150 watts  |
| TRAB4703P  | Phantom UHF Antenna P. Mt.* | 470-490 MHz     | 3-dB MEG | Black | 3.40"         | 150 watts  |
| TRA4903  | Phantom UHF Antenna P. Mt.* | 490-512 MHz     | 3-dB MEG | White | 3.40"         | 150 watts  |
| TRAB4903   | Phantom UHF Antenna         | 490-512 MHz     | 3-dB MEG | Black | 3.40"         | 150 watts  |

## 700 MHz - 5.8 GHz 3 dB-MEG Models

|            |                             |             |          |       |       |           |
|------------|-----------------------------|-------------|----------|-------|-------|-----------|
| TRA7463    | Phantom Antenna             | 746-796 MHz | 3-dB MEG | White | 2.70" | 150 watts |
| TRAB7463   | Phantom Antenna             | 746-796 MHz | 3-dB MEG | Black | 2.70" | 150 watts |
| TRA7603    | Phantom Antenna             | 760-870 MHz | 3-dB MEG | White | 2.70" | 150 watts |
| TRAB7603   | Phantom Antenna             | 760-870 MHz | 3-dB MEG | Black | 2.70" | 150 watts |
| TRA7603P   | Phantom Antenna P. Mt.*     | 760-870 MHz | 3-dB MEG | White | 2.70" | 150 watts |
| TRAB7603P  | Phantom Antenna P. Mt.*     | 760-870 MHz | 3-dB MEG | Black | 2.70" | 150 watts |
| TRA8063    | Phantom Antenna             | 806-866 MHz | 3-dB MEG | White | 2.70" | 150 watts |
| TRAB8063   | Phantom Antenna             | 806-866 MHz | 3-dB MEG | Black | 2.70" | 150 watts |
| TRA8063P   | Phantom Antenna P. Mt.*     | 806-866 MHz | 3-dB MEG | White | 2.70" | 150 watts |
| TRAB8063P  | Phantom Antenna P. Mt.*     | 806-866 MHz | 3-dB MEG | Black | 2.70" | 150 watts |
| TRA8063NP  | Phantom Antenna P. Mt.*/NGP | 806-866 MHz | 3-dB MEG | White | 2.70" | 150 watts |
| TRAB8063NP | Phantom Antenna P. Mt.*/NGP | 806-866 MHz | 3-dB MEG | Black | 2.70" | 150 watts |
| TRA8213    | Phantom Antenna             | 821-896 MHz | 3-dB MEG | White | 2.70" | 150 watts |
| TRAB8213   | Phantom Antenna             | 821-896 MHz | 3-dB MEG | Black | 2.70" | 150 watts |
| TRA8213P   | Phantom Antenna P. Mt.*     | 821-896 MHz | 3-dB MEG | White | 2.70" | 150 watts |
| TRAB8213P  | Phantom Antenna P. Mt.*     | 821-896 MHz | 3-dB MEG | Black | 2.70" | 150 watts |
| TRA8213NP  | Phantom Antenna P. Mt.*/NGP | 821-896 MHz | 3-dB MEG | White | 2.70" | 100 watts |
| TRAB8213NP | Phantom Antenna P. Mt.*/NGP | 821-896 MHz | 3-dB MEG | Black | 2.70" | 100 watts |
| TRA8903    | Phantom Antenna             | 890-960 MHz | 3-dB MEG | White | 2.70" | 150 watts |
| TRAB8903   | Phantom Antenna             | 890-960 MHz | 3-dB MEG | Black | 2.70" | 150 watts |
| TRA9023    | Phantom Antenna             | 902-928 MHz | 3-dB MEG | White | 2.70" | 150 watts |
| TRAB9023   | Phantom Antenna             | 902-928 MHz | 3-dB MEG | Black | 2.70" | 150 watts |
| TRA9023P   | Phantom Antenna P. Mt.*     | 902-928 MHz | 3-dB MEG | White | 2.70" | 150 watts |
| TRAB9023P  | Phantom Antenna P. Mt.*     | 902-928 MHz | 3-dB MEG | Black | 2.70" | 150 watts |
| TRA9023NP  | Phantom Antenna P. Mt.*/NGP | 902-928 MHz | 3-dB MEG | White | 2.70" | 100 watts |
| TRAB9023NP | Phantom Antenna P. Mt.*/NGP | 902-928 MHz | 3-dB MEG | Black | 2.70" | 100 watts |
| TRA24003   | Phantom Antenna             | 2.4-2.5 GHz | 3-dB MEG | White | 2.70" | 100 watts |
| TRAB24003  | Phantom Antenna             | 2.4-2.5 GHz | 3-dB MEG | Black | 2.70" | 100 watts |
| TRA24003P  | Phantom Antenna P. Mt.*     | 2.4-2.5 GHz | 3-dB MEG | White | 2.70" | 100 watts |
| TRAB24003P | Phantom Antenna P. Mt.*     | 2.4-2.5 GHz | 3-dB MEG | Black | 2.70" | 100 watts |

\*Add .625" overall height for all P mount models



| Model       | Description                 | Frequency Range | Gain     | Color | Radome Height | Max. Power |
|-------------|-----------------------------|-----------------|----------|-------|---------------|------------|
| TRA24003NP  | Phantom Antenna P. Mt.*/NGP | 2.4-2.5 GHz     | 3-dB MEG | White | 2.70"         | 100 watts  |
| TRAB24003NP | Phantom Antenna P. Mt.*/NGP | 2.4-2.5 GHz     | 3-dB MEG | Black | 2.70"         | 100 watts  |
| TRA58003    | Phantom Antenna             | 4.9-6.0 GHz     | 3-dB MEG | White | 3.40"         | 150 watts  |
| TRAB58003   | Phantom Antenna             | 4.9-6.0 GHz     | 3-dB MEG | Black | 3.40"         | 150 watts  |
| TRA58003P   | Phantom Antenna P. Mt.*     | 4.9-6.0 GHz     | 3-dB MEG | White | 3.40"         | 150 watts  |
| TRAB58003P  | Phantom Antenna P. Mt.*     | 4.9-6.0 GHz     | 3-dB MEG | Black | 3.40"         | 150 watts  |



TRA24003

**Multi-Band 3 dB-MEG Models**

|                 |                                     |                              |          |       |       |           |
|-----------------|-------------------------------------|------------------------------|----------|-------|-------|-----------|
| TRA821/18503    | Phantom Cell/PCS Antenna            | 821-896 MHz<br>1850-1990 MHz | 3-dB MEG | White | 2.30" | 100 watts |
| TRAB821/18503   | Phantom Cell/PCS Antenna            | 821-896 MHz<br>1850-1990 MHz | 3-dB MEG | Black | 2.30" | 100 watts |
| TRA821/18503P   | Phantom Cell/PCS Permanent Mt.*     | 821-896 MHz<br>1850-1990 MHz | 3-dB MEG | White | 2.30" | 100 watts |
| TRAB821/18503P  | Phantom Cell/PCS Permanent Mt.*     | 821-896 MHz<br>1850-1990 MHz | 3-dB MEG | Black | 2.30" | 100 watts |
| TRA806/17103    | Phantom DCS/GSM/UMTS Antenna        | 806-960 MHz<br>1710-2500 MHz | 3-dB MEG | White | 2.30" | 100 watts |
| TRAB806/17103   | Phantom DCS/GSM/UMTS Antenna        | 806-960 MHz<br>1710-2500 MHz | 3-dB MEG | Black | 2.30" | 100 watts |
| TRA806/17103P   | Phantom DCS/GSM/UMTS Permanent Mt.* | 806-960 MHz<br>1710-2500 MHz | 3-dB MEG | White | 2.30" | 100 watts |
| TRAB806/17103PP | Phantom DCS/GSM/UMTS Permanent Mt.* | 806-960 MHz<br>1710-2500 MHz | 3-dB MEG | Black | 2.30" | 100 watts |

| Model | Description | Freq | Gain | Overall Height | Connector Type | Coax Type |
|-------|-------------|------|------|----------------|----------------|-----------|
|-------|-------------|------|------|----------------|----------------|-----------|

**Low Profile Models with integrated plane**

All models listed with permanent mount\*

|           |                     |             |          |       |          |        |
|-----------|---------------------|-------------|----------|-------|----------|--------|
| DTRA8063P | Low Profile Phantom | 806-866 MHz | 3 dB-MEG | 1.25" | TNC-Male | ATX195 |
| DTRA8213P | Low Profile Phantom | 821-896 MHz | 3 dB-MEG | 1.25" | TNC-Male | ATX195 |

**Dual-Band Phantom with GPS**

All models listed with permanent mount\*

|            |                                    |               |          |       |          |        |
|------------|------------------------------------|---------------|----------|-------|----------|--------|
| GPSD4503P  | Standard AVL w/Phantom             | 450 - 470 MHz | 3 dB-MEG | 3.5"  | TNC-Male | ATX195 |
| GPSD7463P  | Low Profile AVL w/Phantom          | 746 - 786 MHz | 3 dB-MEG | 1.25" | TNC-Male | ATX195 |
| GPSD8063P  | Low Profile AVL w/Phantom          | 806 - 866 MHz | 3 dB-MEG | 1.25" | TNC-Male | ATX195 |
| GPSD8063EP | As above with ext. 1" mounting nut | 806 - 866 MHz | 3 dB-MEG | 1.25" | TNC-Male | ATX195 |
| GPSD8213P  | Low Profile AVL w/Phantom          | 821 - 896 MHz | 3 dB-MEG | 1.25" | TNC-Male | ATX195 |
| GPSD8903P  | Low Profile AVL w/Phantom          | 890 - 960 MHz | 3 dB-MEG | 1.25" | TNC-Male | ATX195 |
| GPSD9023P  | Low Profile AVL w/Phantom          | 902 - 928 MHz | 3 dB-MEG | 1.25" | TNC-Male | ATX195 |

**Tri-Band Phantom with GPS AVL**

|                |                           |                               |          |       |          |          |
|----------------|---------------------------|-------------------------------|----------|-------|----------|----------|
| GPS7821/18503P | Cell/PCS/GPS Low Profile* | 821-896 MHz/<br>1850-1990 MHz | 3 dB-MEG | 1.25" | TNC-Male | 17-RG174 |
|----------------|---------------------------|-------------------------------|----------|-------|----------|----------|

Custom tuning available

\*Add .625" overall height for all P mount models

**Ordering Guide**

**DTRA8063P =**

Low Profile, Phantom, Black finish, 806-866 MHz, 3 dB-MEG gain, permanent mount

- D** Low Profile
- TRA** Phantom antenna
- B** B = Black Finish      Blank = White Finish
- 806** Initial Frequency
- 3** Gain  
Blank = Unity  
3 = 3 dB MEG (Mean Effective Gain)
- P** Mount option  
Blank = NMO  
P = Permanent  
N = No Ground Plane



DTRA8063P



GPSD4503P



GPSD7463P

TNC-Male connector with 17' cable standard on all P mounts. Other connectors available

## Phantom Elite: Design + Performance = True Field Diversity Refined Beyond Imitation

The next generation Antenex Phantom Elite® antennas blend stealth inspired design with patented true field diversity technology providing both vertical and horizontal polarization. The antenna that revolutionized the industry makes a striking visual impact by enclosing the superior Phantom technology in a significantly more aerodynamic housing. The Phantom Elite® is the perfect low profile choice for taxi and public safety vehicles. The patented "no-whip" design counteracts signal fading in highly reflective urban or mobile environments. The stealth antennas are also less susceptible to damage and vandalism. All models are produced with field-proven ABS injection molded material.



**Patented Field Diversity™**

Patented PC board radiator



All silver soldered joints



Aerodynamic molded ABS housing is virtually indestructible



| Model                      | Description                       | Frequency Range | Gain     | Color | Radome Height | Max. Power |
|----------------------------|-----------------------------------|-----------------|----------|-------|---------------|------------|
| <b>VHF Unity Models</b>    |                                   |                 |          |       |               |            |
| ETRA1440                   | Phantom Elite VHF Antenna         | 144-148 MHz     | Unity    | White | 2.375"        | 60 watts   |
| ETRAB1440                  | Phantom Elite VHF Antenna         | 144-148 MHz     | Unity    | Black | 2.375"        | 60 watts   |
| ETRA1500                   | Phantom Elite VHF Antenna         | 150-155 MHz     | Unity    | White | 2.375"        | 60 watts   |
| ETRAB1500                  | Phantom Elite VHF Antenna         | 150-155 MHz     | Unity    | Black | 2.375"        | 60 watts   |
| ETRA1550                   | Phantom Elite VHF Antenna         | 155-160 MHz     | Unity    | White | 2.375"        | 60 watts   |
| ETRAB1550                  | Phantom Elite VHF Antenna         | 155-160 MHz     | Unity    | Black | 2.375"        | 60 watts   |
| ETRA1650                   | Phantom Elite VHF Antenna         | 165-170 MHz     | Unity    | White | 2.375"        | 60 watts   |
| ETRA2100                   | Phantom Elite VHF Antenna         | 210-225 MHz     | Unity    | White | 2.375"        | 100 watts  |
| ETRAB2100                  | Phantom Elite VHF Antenna         | 210-225 MHz     | Unity    | Black | 2.375"        | 100 watts  |
| <b>UHF 3 dB-MEG Models</b> |                                   |                 |          |       |               |            |
| ETRA4103                   | Phantom Elite UHF Antenna         | 410-425 MHz     | 3-dB MEG | White | 3.40"         | 150 watts  |
| ETRAB4103                  | Phantom Elite UHF Antenna         | 410-425 MHz     | 3-dB MEG | Black | 3.40"         | 150 watts  |
| ETRA4303                   | Phantom Elite UHF Antenna         | 430-450 MHz     | 3-dB MEG | White | 3.40"         | 150 watts  |
| ETRAB4303                  | Phantom Elite UHF Antenna         | 430-450 MHz     | 3-dB MEG | Black | 3.40"         | 150 watts  |
| ETRA4303P                  | Phantom Elite UHF Antenna P. Mt.* | 430-450 MHz     | 3-dB MEG | White | 3.40"         | 150 watts  |
| ETRAB4303P                 | Phantom Elite UHF Antenna P. Mt.* | 430-450 MHz     | 3-dB MEG | Black | 3.40"         | 150 watts  |
| ETRA4500N                  | Phantom Elite UHF Antenna NGP     | 450-470 MHz     | 3-dB MEG | White | 3.40"         | 150 watts  |
| ETRAB4500N                 | Phantom Elite UHF Antenna NGP     | 450-470 MHz     | 3-dB MEG | Black | 3.40"         | 150 watts  |
| ETRA4503                   | Phantom Elite UHF Antenna         | 450-470 MHz     | 3-dB MEG | White | 3.40"         | 150 watts  |
| ETRAB4503                  | Phantom Elite UHF Antenna         | 450-470 MHz     | 3-dB MEG | Black | 3.40"         | 150 watts  |
| ETRA4503P                  | Phantom Elite UHF Antenna P. Mt.* | 450-470 MHz     | 3-dB MEG | White | 3.40"         | 150 watts  |
| ETRAB4503P                 | Phantom Elite UHF Antenna P. Mt.* | 450-470 MHz     | 3-dB MEG | Black | 3.40"         | 150 watts  |
| ETRA4703                   | Phantom Elite UHF Antenna         | 470-490 MHz     | 3-dB MEG | White | 3.40"         | 150 watts  |
| ETRAB4703                  | Phantom Elite UHF Antenna         | 470-490 MHz     | 3-dB MEG | Black | 3.40"         | 150 watts  |
| ETRA4703P                  | Phantom Elite UHF Antenna P. Mt.* | 470-490 MHz     | 3-dB MEG | White | 3.40"         | 150 watts  |
| ETRAB4703P                 | Phantom Elite UHF Antenna P. Mt.* | 470-490 MHz     | 3-dB MEG | Black | 3.40"         | 150 watts  |



| Model                                    | Description                        | Frequency Range | Gain     | Color | Radome Height | Max. Power |
|--|------------------------------------|-----------------|----------|-------|---------------|------------|
| <b>700 MHz - 2.4 GHz 3 dB-MEG Models</b> |                                    |                 |          |       |               |            |
| ETRA7463                                 | Phantom Elite Antenna              | 746-796 MHz     | 3-dB MEG | White | 2.70"         | 150 watts  |
| ETRA87463                                | Phantom Elite Antenna              | 746-796 MHz     | 3-dB MEG | Black | 2.70"         | 150 watts  |
| ETRA8063                                 | Phantom Elite Antenna              | 806-866 MHz     | 3-dB MEG | White | 2.70"         | 150 watts  |
| ETRA8063                                 | Phantom Elite Antenna              | 806-866 MHz     | 3-dB MEG | Black | 2.70"         | 150 watts  |
| ETRA8063P                                | Phantom Elite Antenna P. Mt. *     | 806-866 MHz     | 3-dB MEG | White | 2.70"         | 150 watts  |
| ETRA8063P                                | Phantom Elite Antenna P. Mt. *     | 806-866 MHz     | 3-dB MEG | Black | 2.70"         | 150 watts  |
| ETRA8063NP                               | Phantom Elite Antenna P. Mt. */NGP | 806-866 MHz     | 3-dB MEG | White | 2.70"         | 150 watts  |
| ETRA8063NP                               | Phantom Elite Antenna P. Mt. */NGP | 806-866 MHz     | 3-dB MEG | Black | 2.70"         | 150 watts  |
| ETRA8213                                 | Phantom Elite Antenna              | 821-896 MHz     | 3-dB MEG | White | 2.70"         | 150 watts  |
| ETRA8213                                 | Phantom Elite Antenna              | 821-896 MHz     | 3-dB MEG | Black | 2.70"         | 150 watts  |
| ETRA8213P                                | Phantom Elite Antenna P. Mt. *     | 821-896 MHz     | 3-dB MEG | White | 2.70"         | 150 watts  |
| ETRA8213P                                | Phantom Elite Antenna P. Mt. *     | 821-896 MHz     | 3-dB MEG | Black | 2.70"         | 150 watts  |
| ETRA8213NP                               | Phantom Elite Antenna P. Mt. */NGP | 821-896 MHz     | 3-dB MEG | White | 2.70"         | 100 watts  |
| ETRA8213NP                               | Phantom Elite Antenna P. Mt. */NGP | 821-896 MHz     | 3-dB MEG | Black | 2.70"         | 100 watts  |
| ETRA8903                                 | Phantom Elite Antenna              | 890-960 MHz     | 3-dB MEG | White | 2.70"         | 150 watts  |
| ETRA8903                                 | Phantom Elite Antenna              | 902-928 MHz     | 3-dB MEG | White | 2.70"         | 150 watts  |
| ETRA89023                                | Phantom Elite Antenna              | 902-928 MHz     | 3-dB MEG | Black | 2.70"         | 150 watts  |
| ETRA89023P                               | Phantom Elite Antenna P. Mt. *     | 902-928 MHz     | 3-dB MEG | Black | 2.70"         | 150 watts  |
| ETRA89023NP                              | Phantom Elite Antenna P. Mt. */NGP | 902-928 MHz     | 3-dB MEG | Black | 2.70"         | 100 watts  |
| ETRA24003                                | Phantom Elite Antenna              | 2.4-2.5 GHz     | 3-dB MEG | White | 2.70"         | 100 watts  |
| ETRA24003                                | Phantom Elite Antenna              | 2.4-2.5 GHz     | 3-dB MEG | Black | 2.70"         | 100 watts  |
| ETRA24003P                               | Phantom Elite Antenna P. Mt. *     | 2.4-2.5 GHz     | 3-dB MEG | White | 2.70"         | 100 watts  |
| ETRA24003P                               | Phantom Elite Antenna P. Mt. *     | 2.4-2.5 GHz     | 3-dB MEG | Black | 2.70"         | 100 watts  |
| ETRA24003NP                              | Phantom Elite Antenna P. Mt. */NGP | 2.4-2.5 GHz     | 3-dB MEG | White | 2.70"         | 100 watts  |
| ETRA24003NP                              | Phantom Elite Antenna P. Mt. */NGP | 2.4-2.5 GHz     | 3-dB MEG | Black | 2.70"         | 100 watts  |

| <b>Multi-Band 3 dB-MEG Models</b> |                                 |                              |          |       |       |           |
|-----------------------------------|---------------------------------|------------------------------|----------|-------|-------|-----------|
| ETRA821/18503                     | Phantom Elite Cell/PCS Antenna  | 821-896 MHz<br>1850-1990 MHz | 3-dB MEG | White | 2.70" | 100 watts |
| ETRA821/18503                     | Phantom Elite Cell/PCS Antenna  | 821-896 MHz<br>1850-1990 MHz | 3-dB MEG | Black | 2.70" | 100 watts |
| ETRA821/18503P                    | Phantom Elite Cell/PCS P. Mt. * | 821-896 MHz<br>1850-1990 MHz | 3-dB MEG | White | 2.70" | 100 watts |
| ETRA821/18503P                    | Phantom Elite Cell/PCS P. Mt. * | 821-896 MHz<br>1850-1990 MHz | 3-dB MEG | Black | 2.70" | 100 watts |

| <b>Wifi Indoor Solutions</b> |                       |             |          |       |       |           |
|------------------------------|-----------------------|-------------|----------|-------|-------|-----------|
| ETRA24003DTM                 | Desktop Version White | 2.4-2.5 GHz | 3-dB MEG | White | 2.70" | 100 watts |
| ETRA24003DTM                 | Desktop Version Black | 2.4-2.5 GHz | 3-dB MEG | Black | 2.70" | 100 watts |
| ETRA24003WM                  | Wall Mount            | 2.4-2.5 GHz | 3-dB MEG | White | 2.70" | 100 watts |
| ETRA24003CM                  | Ceiling Tile Mount    | 2.4-2.5 GHz | 3-dB MEG | White | 2.70" | 100 watts |

| <b>Drop Ceiling Antenna Adaptors</b> |                              |
|--------------------------------------|------------------------------|
| TRADCA                               | No Ground Plane              |
| TRADCAGP                             | With 6 x 6 Inch Ground Plane |

\*Add .625" overall height for all P mount models

**NEW**  
**Trunking Radio Band  
Phantom Elite**



Elite VHF Special Chrome bayonet mounting adapter. Specify 3/8 or 3/4" size on order



ETRA4503

ETRA8063

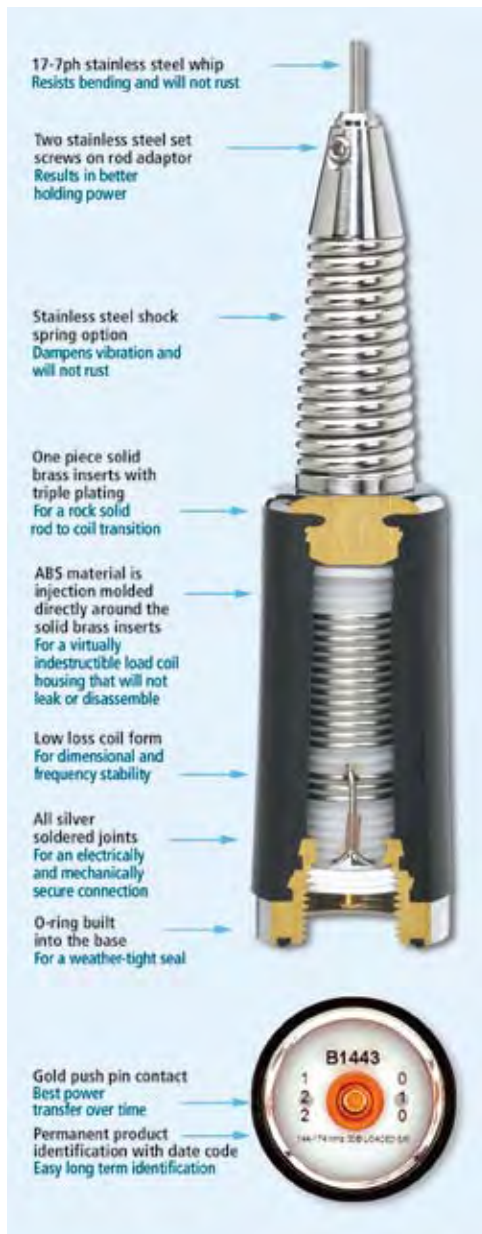


ETRA24003CM  
with Ceiling Mount



## Laird Technologies Mobile Load Coil antennas are the most technologically advanced antennas on the market

Laird Technologies continues to develop and improve all land mobile radio antenna products. Years of refinement in the mechanical and electrical design of load coil products have resulted in the most technically advanced antennas on the market. These mobile antennas are designed and built for demanding applications and typically outlast the cars they are mounted on. Laird Technologies mobiles are used extensively on municipal vehicles, in off road racing, on industrial vehicles, taxi cabs and other high endurance applications such as police cruisers, emergency vehicles, and forestry service vehicles. The antennas are manufactured in over 100 variations and each model is permanently marked for model and frequency. No ground plane antennas provide flexibility in any mounting application, while dual and wide band models attain full value out of today's advanced radios. Please contact Laird Technologies for availability on additional products and mobile applications.



### Antenna Ordering Guide

#### BB4505CNS =

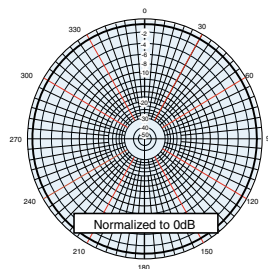
B-Mobile Load Coil, Black Chrome Finish, 450-470 MHz, 5 dB Gain, Closed Coil Collinear, No Ground Plane, Spring

|            |   |   |                      |          |
|------------|---|---|----------------------|----------|
| <b>B</b>   | Antenna Style<br>B = B Mobile Load Coil |   |                      |          |
| <b>B</b>   | Finish                                  | Blank = Chrome                                    | B = Black            |          |
| <b>450</b> | Frequency                               | Initial frequency rating component of part number |                      |          |
| <b>5</b>   | Gain                                    | Blank = Unity (Lowband Models)                    | 3 = 3 dB             | 5 = 5 dB |
|            |   | 0 = Unity   |                      |          |
| <b>C</b>   | Phasing Coil                            | Blank = Straight Rod                              | C = Close            |          |
| <b>N</b>   | Ground Plane                            | N = No Ground Plane                               | Blank = Ground Plane |          |
| <b>S</b>   | Spring Option                           | S = Spring Option                                 |                      |          |

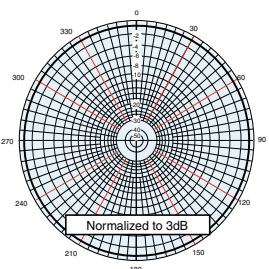
| Model                                | Description       | Frequency    | Center  | Gain<br>Freq | Overall<br>Length | Whip<br>Style |
|--------------------------------------|-------------------|--------------|---------|--------------|-------------------|---------------|
| <b>Lowband DC Ground Base Models</b> |                   |              |         |              |                   |               |
| C27                                  | 1/4 Wave          | 26.75-31 MHz | Tunable | Unity        | 52.5              | 49" Tapered   |
| C30                                  | 1/4 Wave          | 30 - 35 MHz  | Tunable | Unity        | 52.5              | 49" Tapered   |
| C34                                  | 1/4 Wave          | 34 - 37 MHz  | Tunable | Unity        | 52.5              | 49" Tapered   |
| C37                                  | 1/4 Wave          | 37 - 40 MHz  | Tunable | Unity        | 52.5              | 49" Tapered   |
| C40S                                 | 1/4 Wave w/Spring | 40 - 47 MHz  | Tunable | Unity        | 52.5              | 49" Tapered   |
| C40                                  | 1/4 Wave          | 40 - 47 MHz  | Tunable | Unity        | 52.5              | 49" Tapered   |
| C47                                  | 1/4 Wave          | 47 - 50 MHz  | Tunable | Unity        | 52.5              | 49" Tapered   |

| <b>VHF Models</b> |                                   |               |         |        |          |                  |
|-------------------|-----------------------------------|---------------|---------|--------|----------|------------------|
| B66               | 1/4 Wave Broadband                | 66 - 174 MHz  | Tunable | Unity  | 51       | 49" Tapered      |
| B132              | 1/4 Wave Broadband                | 132 - 928 MHz | Tunable | Unity  | 23       | 21" Straight     |
| B132S             | 1/4 Wave Broadband                | 132 - 525 MHz | Tunable | Unity  | 23       | 21" Straight     |
| B1322N            | NGP Base Loaded 1/2 Wave          | 132 - 174 MHz | Tunable | 2.4 dB | 57       | 55" Tapered      |
| B1322W            | 1/4 Wave Wideband                 | Variable*     | Tunable | Unity  | 23       | 21" Straight     |
| B1322WS           | 1/4 Wave Wideband w/spring        | Variable*     | Tunable | Unity  | 23       | 21" Straight     |
| B1323S            | 5/8 Wave w/Spring                 | 132 - 174 MHz | Tunable | 3 dB   | 59       | 55" Tapered      |
| B1323             | 5/8 Wave                          | 132 - 174 MHz | Tunable | 3 dB   | 57       | 55" Tapered      |
| B1442NS           | NGP Base Loaded 1/2 Wave w/Spring | 144 - 174 MHz | Tunable | 2.4 dB | 53       | 49" Tapered      |
| B1442N            | NGP Base Loaded 1/2 Wave          | 144 - 174 MHz | Tunable | 2.4 dB | 51       | 49" Tapered      |
| B1443             | 5/8 Wave                          | 144 - 174 MHz | Tunable | 3 dB   | 51 - 3/8 | 49" Tapered      |
| B1443S            | 5/8 Wave w/Spring                 | 144 - 174 MHz | Tunable | 3 dB   | 53 - 3/8 | 49" Tapered      |
| B2003             | 5/8 Wave                          | 200 - 225 MHz | Tunable | 3 dB   | 35       | 33" Straight     |
| B2503             | 5/8 Wave                          | 250 - 280 MHz | Tunable | 3 dB   | 26.5     | 24 1/2" Straight |
| B2002N            | NGP Base Loaded 1/2 Wave          | 200 - 225 MHz | Tunable | 2.4 dB | 31.5     | 29 1/2" Straight |

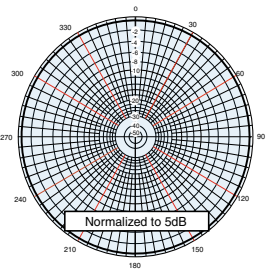
| <b>UHF Models</b> |                                |               |         |        |       |                    |
|-------------------|--------------------------------|---------------|---------|--------|-------|--------------------|
| B4063             | 5/8 Wave                       | 406 - 430 MHz | Tunable | 3 dB   | 15    | 13" Straight       |
| B4303             | 5/8 Wave                       | 430 - 450 MHz | Tunable | 3 dB   | 14    | 11 13/16" Straight |
| B4503             | 5/8 Wave                       | 450 - 470 MHz | Tunable | 3 dB   | 13    | 11" Straight       |
| B4703             | 5/8 Wave                       | 470 - 490 MHz | Tunable | 3 dB   | 12.5  | 10 11/16" Straight |
| B4903             | 5/8 Wave                       | 490 - 512 MHz | Tunable | 3 dB   | 12.5  | 10 1/2" Straight   |
| B4065C            | Closed Coil Collinear          | 406 - 430 MHz | Tunable | 5 dB   | 39.5  | 37 3/8" Collinear  |
| B4305C            | Closed Coil Collinear          | 430 - 450 MHz | Tunable | 5 dB   | 36    | 34 1/8" Collinear  |
| B4505CS           | Closed Coil Collinear w/Spring | 450 - 470 MHz | Tunable | 5 dB   | 37    | 32 3/4" Collinear  |
| B4505C            | Closed Coil Collinear          | 450 - 470 MHz | Tunable | 5 dB   | 35    | 32 3/4" Collinear  |
| B4705C            | Closed Coil Collinear          | 470 - 490 MHz | Tunable | 5 dB   | 33    | 31 1/4" Collinear  |
| B4905C            | Closed Coil Collinear          | 490 - 512 MHz | Tunable | 5 dB   | 31    | 29 1/8" Collinear  |
| B4062N            | NGP 1/2 Wave                   | 406 - 430 MHz | Tunable | 2.4 dB | 14.31 | 11 9/16" Straight  |
| B4302N            | NGP 1/2 Wave                   | 430 - 450 MHz | Tunable | 2.4 dB | 12.5  | 10 5/8" Straight   |
| B4502N            | NGP 1/2 Wave                   | 450 - 470 MHz | Tunable | 2.4 dB | 12.5  | 10 5/16" Straight  |
| B4065CN           | NGP Closed Coil Collinear      | 406 - 430 MHz | Tunable | 5 dB   | 36    | 34 1/8" Collinear  |
| B4305CN           | NGP Closed Coil Collinear      | 430 - 450 MHz | Tunable | 5 dB   | 35    | 32 7/8" Collinear  |
| B4505CN           | NGP Closed Coil Collinear      | 450 - 470 MHz | Tunable | 5 dB   | 32.5  | 30 1/2" Collinear  |
| B4705CN           | NGP Closed Coil Collinear      | 470 - 490 MHz | Tunable | 5 dB   | 30.5  | 28 7/16" Collinear |
| B4905CN           | NGP Closed Coil Collinear      | 490 - 512 MHz | Tunable | 5 dB   | 29    | 27 1/8" Collinear  |



C27



B1443



B4505C



B1322S

B1322

C47

### Technical Data - Product Features & Information

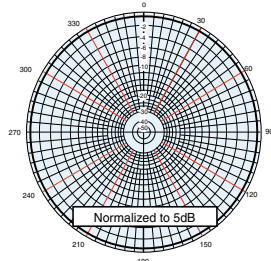
- **Gain:**  
See model.
- **Frequency Range:**  
See model.
- **VSWR:**  
<2:1.
- **Maximum Power:**  
All models - 200 watts.  
**Bandwidth:**  
See representative VSWR plot.
- **Impedance:**  
50 ohms.
- **Tuning:**  
Models are shipped at the lowest frequency in the range. Custom factory tuning is available.
- **Mounting Base:**  
Injected molded high heat ABS with copper, nickel, bright or black chrome solid brass inserts.
- **Radiator:**  
17-7ph tapered stainless steel whip or 17-7ph straight stainless steel collinear with a centerless ground finish or black chrome plate.
- **Coil Form:**  
3 dimensional precision machined Delrin®.
- **Phasing Coils:**  
Silver plated tempered brass.
- **Contacts:**  
Gold plated push pin.
- **Mounts to:**  
3/4", 3/8", Magnetic and Mini-Trunk mounts.
- **Quality Assurance:**  
100% tested on a network analyzer.

Custom tuning available

**NEW**

## Trunking Radio Band B-Coil

- 760 - 870 MHz



B8065C

## Wideband Antennas

- Feature unique dual tuned circuit design
- Allows operation over a broad range of channels/frequencies
- Self tuning feature with no rod trimming allows for faster installations



CW4405C    CW27    CW1503

Custom tuning available

U.S. Patent No. 5,604,507 -  
International Patents Pending.

| Model                       | Description                  | Frequency     | Center Freq | Gain   | Overall Length    |
|-----------------------------|------------------------------|---------------|-------------|--------|-------------------|
| <b>700 - 900 MHz Models</b> |                              |               |             |        |                   |
| B7603                       | Base Loaded 5/8 Wave         | 760 - 870 MHz | 812 MHz     | 3 dBi  | 4 7/8" Straight   |
| B7643                       | Base Loaded 5/8 Wave         | 764 - 870 MHz | 812 MHz     | 3 dBi  | 4 7/8" Straight   |
| B8063                       | Base Loaded 5/8 Wave         | 806 - 866 MHz | Tunable     | 3 dB   | 4 7/8" Straight   |
| B8963                       | Base Loaded 5/8 Wave         | 896 - 970 MHz | 933 MHz     | 3 dBi  | 4 7/8" Straight   |
| B8065C                      | Base Loaded Closed Collinear | 806 - 866 MHz | Tunable     | 5 dB   | 16" Collinear     |
| B8965C                      | NGP Closed Collinear         | 896 - 970 MHz | Tunable     | 5 dB   | 13 3/4" Collinear |
| B8062N                      | NGP Bases Loaded 1/2 Wave    | 806 - 866 MHz | Tunable     | 2.4 dB | 4 7/8" Straight   |
| B8065CN                     | NGP Closed Collinear         | 806 - 866 MHz | Tunable     | 5 dB   | 16" Collinear     |
| B8965CN                     | NGP Closed Collinear         | 896 - 970 MHz | Tunable     | 5 dB   | 13 3/4" Collinear |

### Options and Accessories

|        |                                 |
|--------|---------------------------------|
| B      | Add Black Chrome Finish         |
| S      | Add Shock Spring                |
| SB     | Add Black Shock Spring          |
| RO49T  | 49" tapered whip and ball       |
| ROB49T | Black 49" tapered whip and ball |

### Wideband - Lowband

|      |                      |                 |           |       |        |
|------|----------------------|-----------------|-----------|-------|--------|
| CW27 | Base Loaded 1/4 Wave | 26.8 - 29.7 MHz | 28.25 MHz | Unity | 67.5   |
| CW30 | Base Loaded 1/4 Wave | 30 - 34 MHz     | 32 MHz    | Unity | 63.5   |
| CW34 | Base Loaded 1/4 Wave | 34 - 40 MHz     | 37 MHz    | Unity | 66     |
| CW37 | Base Loaded 1/4 Wave | 37 - 46 MHz     | 41.5 MHz  | Unity | 60-3/4 |
| CW42 | Base Loaded 1/4 Wave | 42 - 48 MHz     | 45 MHz    | Unity | 54-3/4 |

### Wideband - VHF Models

|        |                      |               |         |       |         |
|--------|----------------------|---------------|---------|-------|---------|
| CW1320 | End Fed 1/4 Wave     | 132 - 174 MHz | Tunable | Unity | 18-3/4" |
| CW1443 | Base Loaded 5/8 Wave | 144 - 156 MHz | 150 MHz | 3 dB  | 50-1/2  |
| CW1503 | Base Loaded 5/8 Wave | 150 - 162 MHz | 156 MHz | 3 dB  | 48-1/2  |
| CW1533 | Base Loaded 5/8 Wave | 153 - 169 MHz | 161 MHz | 3 dB  | 49-1/2  |
| CW1623 | Base Loaded 5/8 Wave | 162 - 174 MHz | 168 MHz | 3 dB  | 43-1/2  |

### Wideband - UHF Models

|         |                       |               |         |      |        |
|---------|-----------------------|---------------|---------|------|--------|
| CW4065C | Closed Coil Collinear | 406 - 430 MHz | 418 MHz | 5 dB | 37-1/2 |
| CW4405C | Closed Coil Collinear | 440 - 470 MHz | 455 MHz | 5 dB | 35-1/2 |

### Options and Accessories

|   |                                |
|---|--------------------------------|
| B | Black Finish                   |
| S | Shock Spring for B and C Coils |

## Technical Data - Product Features & Information

|                       | LOWBAND  | VHF                        | UHF                        |
|-----------------------|--|----------------------------|----------------------------|
| • Gain:               | Unity  | 3 dB                       | 5 dB                       |
| • VSWR (across band): | 2.0:1 or better                                    | 2.0:1 or better            | 2.0:1 or better            |
| • Maximum Power:      | 200 watts  | 200 watts                  | 200 watts                  |
| • Bandwidth:          | Exceeds 10%<br>@1.8:1 VSWR                         | Exceeds 10%<br>@1.8:1 VSWR | Exceeds 10%<br>@1.8:1 VSWR |
| • Impedance:          | 50 ohms<br>DC Continuity                           | 50 ohms<br>DC Continuity   | 50 ohms<br>DC Continuity   |
| • Mounts to:          | 3/4" hole, 3/8" hole, Magnetic & Mini-Trunk Mounts |                            |                            |

## Choose A-Base antennas in Quarterwave, Collinear, or Broad Band options

- Exclusive Laird Technologies gold-pated push-pin contact provides the most corrosion resistance and power transfer over time
- Long tuning ferrule allows for greater freedom in frequency adjustment without trimming
- Stainless steel corona ball stays on the rod - no dissimilar metal interaction associated with competitor designs

**Model**      **Frequency**      **Color**      **Gain**      **Radiator**

### VHF Models

|       |               |        |       |                      |
|-------|---------------|--------|-------|----------------------|
| AFT   | 118 - 896 MHz | Chrome | Unity | 0.100" Dia. 1/4 Wave |
| ABFT  | 118 - 896 MHz | Black  | Unity | 0.100" Dia. 1/4 Wave |
| A150  | 150 - 174 MHz | Chrome | Unity | 0.100" Dia. 1/4 Wave |
| A150S | 150 - 174 MHz | Chrome | Unity | 0.100" Dia. 1/4 Wave |
| AB150 | 150 - 174 MHz | Black  | Unity | 0.100" Dia. 1/4 Wave |

### UHF Models

|         |               |        |        |                      |
|---------|---------------|--------|--------|----------------------|
| A450    | 450 - 470 MHz | Chrome | Unity  | 0.100" Dia. 1/4 Wave |
| AB450   | 450 - 470 MHz | Black  | Unity  | 0.100" Dia. 1/4 Wave |
| A4503   | 450 - 470 MHz | Chrome | 3.5 dB | Open Collinear       |
| A4503C  | 450 - 470 MHz | Chrome | 3.5 dB | Closed Collinear     |
| AB4503  | 450 - 470 MHz | Black  | 3.5 dB | Open Collinear       |
| AB4503C | 450 - 470 MHz | Black  | 3.5 dB | Closed Collinear     |

### 700-800 MHz Antennas

|          |               |        |        |                  |
|----------|---------------|--------|--------|------------------|
| A7603    | 760 - 870 MHz | Chrome | 3 dB   | Open Collinear   |
| AB7603   | 760 - 870 MHz | Black  | 3 dB   | Open Collinear   |
| A8063    | 806 - 896 MHz | Chrome | 3 dB   | Open Collinear   |
| A8063C   | 806 - 896 MHz | Chrome | 3.5 dB | Closed Collinear |
| A8065CT  | 806 - 896 MHz | Chrome | 5 dB   | Closed Trilinear |
| AB8065CT | 806 - 896 MHz | Black  | 5 dB   | Closed Trilinear |
| AB8063   | 806 - 896 MHz | Black  | 3 dB   | Open Collinear   |
| AB8963   | 896 - 970 MHz | Black  | 3 dB   | Open Collinear   |
| AB8063C  | 806 - 896 MHz | Black  | 3.5 dB | Closed Collinear |

### 800 MHz Models with Spring

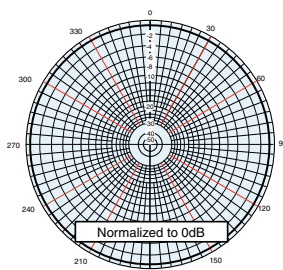
|           |               |        |        |                  |
|-----------|---------------|--------|--------|------------------|
| A8063S    | 806 - 896 MHz | Chrome | 3 dB   | Open Collinear   |
| A8063CS   | 806 - 896 MHz | Chrome | 3.5 dB | Closed Collinear |
| A8065CTS  | 806 - 896 MHz | Chrome | 5 dB   | Closed Trilinear |
| AB8063S   | 806 - 896 MHz | Black  | 3 dB   | Open Collinear   |
| AB8063CS  | 806 - 896 MHz | Black  | 3.5 dB | Closed Collinear |
| AB8065CTS | 806 - 896 MHz | Black  | 5 dB   | Closed Trilinear |

### 2.4 GHz Models

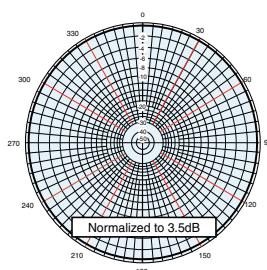
|         |                 |        |       |                |
|---------|-----------------|--------|-------|----------------|
| A2400   | 2400 - 2500 MHz | Chrome | Unity |                |
| AB2400  | 2400 - 2500 MHz | Black  | Unity |                |
| A24003  | 2400 - 2500 MHz | Chrome | 3 dBi | Open Collinear |
| AB24003 | 2400 - 2500 MHz | Black  | 3 dBi | Open Collinear |
| A24005  | 2400 - 2500 MHz | Chrome | 5 dBi | Open Trilinear |
| AB24005 | 2400 - 2500 MHz | Black  | 5 dBi | Open Trilinear |

### Springs

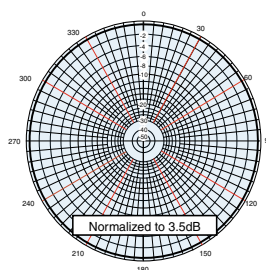
|     |  |
|-----|--|
| AS  | Low Profile Base Chrome Spring w/Key & Set Screw |
| ASB | Low Profile Base Black Spring w/Key & Set Screw  |



A150



A8063C



AB4503C

## Technical Data - Product Features & Information

- **Gain:** See model.
- **Frequency Range:** See model.
- **VSWR:** <1.5:1
- **Maximum Power:** 200 watts
- **Bandwidth:** VHF - up to 25 MHz (with spring), UHF/800/900 - 100 MHz+
- **Impedance:** 50 ohms
- **Mounting Base:** High temperature molded ABS with threaded brass insert.
- **Radiator:** Type 302 stainless steel with a brite or black chrome plate finish for .062" diameter rods.  
17-7ph stainless steel with a centerless ground finish or black chrome plate for all other models.
- **Brass Fittings:** Highly polished brite or black chrome plated ferrule.
- **Contacts:** Gold plated push pin contact on A style.

Custom tuning available

## NEW

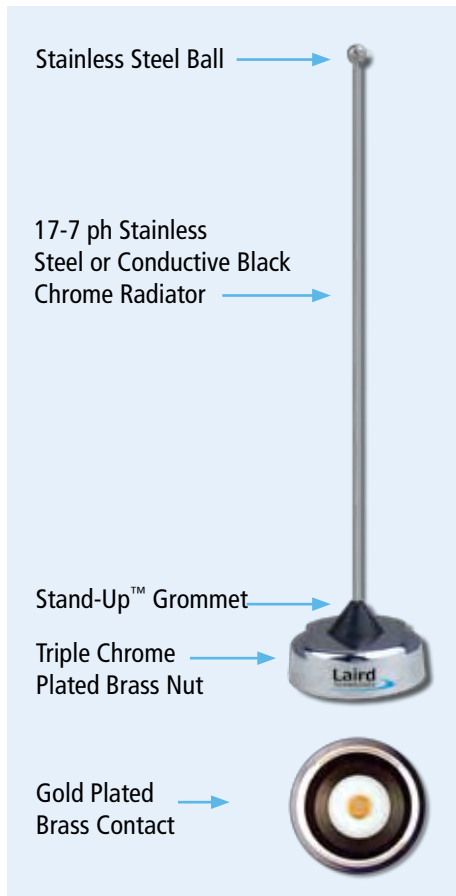
## 2.4 GHz A-Base Antennas

- Unity, 3 dBi or 5 dBi gain



## Laird Technologies Quarterwave Antennas

Laird Technologies' least expensive mobile antennas receive the most detailed attention. Quarterwave models and 3 dB chrome nut models feature a gold plated brass contact and heavy duty specially formulated Stand Up™ grommets that last longer and stay straighter. For any mobile application, you can be sure that Laird Technologies has a feature packed solution for you.



### Quarterwave Antennas

- All Quarterwaves are built with gold plated contacts for corrosion resistance and best power transfer
- Stand-up™ grommet will not degrade over time
- High spring temper rod stays straighter longer
- Stainless steel corona ball stays on the rod - no dissimilar metal interaction associated with competitor designs



QWB800

QW450

| Model | Finish | Frequency | Gain | Overall Length | Whip Style |
|-------|--------|-----------|------|----------------|------------|
|-------|--------|-----------|------|----------------|------------|

#### Unity Gain Models

##### Stainless Models

|         |           |                    |       |                |          |
|---------|-----------|--------------------|-------|----------------|----------|
| Q275    | Stainless | 27 - 54 MHz        | Unity | 102            | 1/4 Wave |
| QW***   | Stainless | Customer Specified | Unity | Customer Spec. | 1/4 Wave |
| QW136   | Stainless | 136 - 144 MHz      | Unity | 22             | 1/4 Wave |
| QW144   | Stainless | 144 - 152 MHz      | Unity | 19             | 1/4 Wave |
| QW152   | Stainless | 152 - 162 MHz      | Unity | 18             | 1/4 Wave |
| QW162   | Stainless | 162 - 174 MHz      | Unity | 17             | 1/4 Wave |
| QW220   | Stainless | 220 - 225 MHz      | Unity | 12.5           | 1/4 Wave |
| QW406   | Stainless | 406 - 430 MHz      | Unity | 7              | 1/4 Wave |
| QW430   | Stainless | 430 - 450 MHz      | Unity | 6.5            | 1/4 Wave |
| QW450   | Stainless | 450 - 470 MHz      | Unity | 6              | 1/4 Wave |
| QW470   | Stainless | 470 - 490 MHz      | Unity | 5.75           | 1/4 Wave |
| QW490   | Stainless | 490 - 512 MHz      | Unity | 5.5            | 1/4 Wave |
| QW760   | Stainless | 760 - 870 MHz      | Unity |                | 1/4 Wave |
| QW800   | Stainless | 806 - 896 MHz      | Unity | 3.3            | 1/4 Wave |
| QW900   | Stainless | 896 - 970 MHz      | Unity | 3              | 1/4 Wave |
| QWFT120 | Stainless | 118 - 970 MHz      | Unity | 24             | 1/4 Wave |

NEW

##### Black Models

|          |       |                    |       |                |          |
|----------|-------|--------------------|-------|----------------|----------|
| QWB***   | Black | Customer Specified | Unity | Customer Spec. | 1/4 Wave |
| QWB136   | Black | 136 - 144 MHz      | Unity | 22"            | 1/4 Wave |
| QWB144   | Black | 144 - 152 MHz      | Unity | 19"            | 1/4 Wave |
| QWB152   | Black | 152 - 162 MHz      | Unity | 18"            | 1/4 Wave |
| QWB162   | Black | 162 - 174 MHz      | Unity | 17"            | 1/4 Wave |
| QWB220   | Black | 220 - 225 MHz      | Unity | 12.5"          | 1/4 Wave |
| QWB406   | Black | 406 - 430 MHz      | Unity | 7"             | 1/4 Wave |
| QWB430   | Black | 430 - 450 MHz      | Unity | 6.5"           | 1/4 Wave |
| QWB450   | Black | 450 - 470 MHz      | Unity | 6"             | 1/4 Wave |
| QWB470   | Black | 470 - 490 MHz      | Unity | 5.75"          | 1/4 Wave |
| QWB490   | Black | 490 - 512 MHz      | Unity | 5.5"           | 1/4 Wave |
| QWB760   | Black | 760 - 870 MHz      | Unity |                | 1/4 Wave |
| QWB800   | Black | 806 - 896 MHz      | Unity | 3.3"           | 1/4 Wave |
| QWB900   | Black | 896 - 970 MHz      | Unity | 3"             | 1/4 Wave |
| QWFTB120 | Black | 118 - 970 MHz      | Unity | 24             | 1/4 Wave |

NEW

#### 3 dB Gain Models

##### Stainless Models

|        |           |               |      |       |                    |
|--------|-----------|---------------|------|-------|--------------------|
| QW8063 | Stainless | 806 - 866 MHz | 3 dB | 16.25 | Open Coil Flexible |
| QW8253 | Stainless | 825 - 896 MHz | 3 dB | 15.5  | Open Coil Flexible |
| QW8963 | Stainless | 896 - 970 MHz | 3 dB | 14.5  | Open Coil Flexible |

##### Black Models

|         |       |               |      |       |                    |
|---------|-------|---------------|------|-------|--------------------|
| QWB8063 | Black | 806 - 866 MHz | 3 dB | 16.25 | Open Coil Flexible |
| QWB8253 | Black | 825 - 896 MHz | 3 dB | 15.5  | Open Coil Flexible |
| QWB8963 | Black | 896 - 970 MHz | 3 dB | 14.5  | Open Coil Flexible |

#### Accessories

|        |                               |
|--------|-------------------------------|
| QWNUT  | Quarterwave Nut - Chrome      |
| QWNUTB | Quarterwave Nut - Black       |
| QWRC   | Quarterwave Rain Cap - Chrome |
| QWRCB  | Quarterwave Rain Cap - Black  |

| Model                                       | Finish | Frequency       | Gain   | Overall Length | Phasing Coil                   |
|---|--------|-----------------|--------|----------------|--------------------------------|
| <b>Dual Band &amp; Special Applications</b> |        |                 |        |                |                                |
| <b>Chrome Models</b>                        |        |                 |        |                |                                |
| A150/450C                                   | Chrome | 150-174/450-470 | Unity  | 18.5"          | Closed coil trap               |
| C144/440C                                   | Chrome | 144-148/440-450 | 2/5 dB | 36-3/8"        | Closed coil collinear          |
| C150/450C                                   | Chrome | 150-174/450-470 | 2/5 dB | 33-3/8"        | Closed coil collinear          |
| C144/440CS                                  | Chrome | 144-148/440-450 | 2/5 dB | 36-3/8"        | Closed coil collinear w/Spring |
| C150/450CS                                  | Chrome | 150-174/450-470 | 2/5 dB | 33-1/2"        | Closed coil collinear w/Spring |
| AB150/450C                                  | Black  | 150-174/450-470 | Unity  | 18-1/2"        | Closed coil trap               |
| CB144/440C                                  | Black  | 144-148/440-450 | 2/5 dB | 36-3/8"        | Closed coil collinear          |
| CB150/450C                                  | Black  | 150-174/450-470 | 2/5 dB | 33-3/8"        | Closed coil collinear          |
| CB144/440CS                                 | Black  | 144-148/440-450 | 2/5 dB | 36-3/8"        | Closed coil collinear w/Spring |
| CB150/450CS                                 | Black  | 150-174/450-470 | 2/5 dB | 33-1/2"        | Closed coil collinear w/Spring |

|  |        |             |  |         |                |
|--|--------|-------------|--|---------|----------------|
| <b>Disguise Antennas (Cellular Look-alike)</b> |        |             |  |         |                |
| <b>Chrome Models</b>                           |        |             |  |         |                |
| AD150  | Chrome | 150-174 MHz |  | 15-5/8" | Short 1/4 Wave |
| AD450  | Chrome | 450-470 MHz |  |         | Short 1/4 Wave |
| <b>Black Models</b>                            |        |             |  |         |                |
| ADB150   | Black  | 150-174 MHz |  | 15-5/8" | Short 1/4 Wave |

|                         |               |             |         |         |                  |
|-------------------------|---------------|-------------|---------|---------|------------------|
| <b>Scanner Antennas</b> |               |             |         |         |                  |
| ASCANC                  | Chrome        | 150/450/800 | Rx Only | 18-1/2" | Closed Collinear |
| ABSCANC                 | Black         | 150/450/800 | Rx Only |         | Closed Collinear |
| AS                      | Chrome Spring |             |         | 2-5/8"  |                  |
| ASB                     | Black Spring  |             |         | 2-5/8"  |                  |

| Model                              | Frequency   | Dimensions - Diameter x Height |
|------------------------------------|-------------|--------------------------------|
| <b>Discadoo - NMO Mount MODELS</b> |             |                                |
| Ground Plane                       |             |                                |
| DISC760M                           | 760-870 MHz | 4.75" x .75"                   |
| DISC806M                           | 806-866 MHz | 4.75" x .75"                   |
| DISC824M                           | 824-896 MHz | 4.75" x .75"                   |

|  |       |               |              |
|--|-------|---------------|--------------|
| <b>Discadoo - Self Adhesive Models with Pigtail Jumper</b> |       |               |              |
| No Ground Plane  |       |               |              |
| DISC2400PNSM   | Black | 2400-2500 MHz | 4.75" x .75" |
| DISCW2400PNSM  | White | 2400-2500 MHz | 4.75" x .75" |

| Model                                  | Finish | Frequency   | Center Frequency | Gain | Overall Length | Whip Style            |
|--|--------|-------------|------------------|------|----------------|-----------------------|
| <b>Elevated Feed Point - UHF Model</b> |        |             |                  |      |                |                       |
| EB4503C                                | Black  | 450-470 MHz | 460 MHz          | 3 dB | 40-1/4"        | Closed coil Collinear |

|   |        |               |         |      |         |                       |
|---|--------|---------------|---------|------|---------|-----------------------|
| <b>Elevated Feed Point - 800/900 MHz Models</b> |        |               |         |      |         |                       |
| E7603   | Chrome | 760 - 870 MHz | 851 MHz | 3 dB |         | Open coil collinear   |
| E7603C  | Chrome | 760 - 870 MHz | 851 MHz | 3 dB |         | Closed coil collinear |
| E8063   | Chrome | 806 - 896 MHz | 851 MHz | 3 dB | 25-3/8" | Open coil collinear   |
| E8063C  | Chrome | 806 - 896 MHz | 851 MHz | 3 dB | 26-7/8" | Closed coil collinear |
| EB8063  | Black  | 806 - 896 MHz | 851 MHz | 3 dB | 25-3/8" | Open coil collinear   |
| EB8063C   | Black  | 806 - 896 MHz | 851 MHz | 3 dB | 26-7/8" | Closed coil collinear |
| EB8065C   | Chrome | 806 - 896 MHz | 851 MHz | 5 dB | 37-1/4" | Closed coil collinear |
| EB8065C   | Black  | 806 - 896 MHz | 851 MHz | 5 dB | 37-1/4" | Closed coil collinear |
| EB8965C   | Black  | 896 - 970 MHz | 933 MHz | 5 dB | 33-1/2" | Closed coil collinear |

## Dual Band & Special Applications

- Built in O-ring provides weather-tight seal
- Dual-band is only 38" tall



C150/450CS



DISC806M

## Discadoo®

- Low profile with big performance
- Low angle omni-directional radiation provided by Planar-Inverted-F antenna design
- Available in NMO and Self Adhesive mounting styles

## Elevated Feed Point

- Ensure signal over high roof lines
- Internal circuit board design provides stable high performance
- No ground plane allows versatile mounting options
- Fiberglass feed shaft for heat resistance, strength, and rigidity



E8065C



1



2



3



4



5



6



7



8



9



10

**Model**                      **Frequency**                      **Connectors**                      **Photo**                      **Avg. length**

**Low Band 27-88 MHz**

|                         |                  |                             |          |               |
|-------------------------|------------------|-----------------------------|----------|---------------|
| A+Frequency+connector   | 27-88MHz         | BN, HT, KR, MX, PL, & TN    | 1        | 6"-10"        |
| A+Frequency+connector+6 | 27-88MHz         | BN, HT, KR, MX, PL, & TN    |          | 6"-10"        |
| <b>EXL Models</b>       | <b>25-29 MHz</b> | <b>HT, KR, MX, BNX, TNX</b> | <b>2</b> |               |
| EXL25                   | 25-29 MHz        |                             | 2        | 10.75"-11.10" |
| EXL30                   | 30-36 MHz        |                             | 2        | 10.75"-11.10" |
| EXL36                   | 36-42 MHz        |                             | 2        | 10.75"-11.10" |
| EXL42                   | 42-50 MHz        |                             | 2        | 10.75"-11.10" |
| EXL66                   | 66-76 MHz        |                             | 2        | 10.75"-11.10" |
| EXL76                   | 76-88 MHz        |                             | 2        | 10.75"-11.10" |
| <b>EXW30</b>            | <b>30-88 MHz</b> | <b>BNX, TNX</b>             | <b>3</b> | <b>12"</b>    |

**VHF 118-225 MHz**

|                   |                      |  |           |             |
|-------------------|----------------------|--|-----------|-------------|
| <b>DR</b>         | <b>118-225 MHz</b>   | <b>BN, MX, SF</b>  | <b>4</b>  | <b>19"</b>  |
| <b>EXB Models</b> |                      | <b>HT, KR, MX, BN, BNX, MD, MXI, SF, SFJ, SFU, SM, TN, TNX, PL</b>   | <b>5</b>  |             |
| EXB118            | 118-127 MHz          |  |           | 7.8"        |
| EXB127            | 127-136 MHz          |  |           | 7.6"        |
| EXB136            | 136-144 MHz          |  |           | 6.48"-7.3"  |
| EXB144            | 144-148 MHz          |  |           | 6.25"-6.9"  |
| EXB150            | 150-162 MHz          |  |           | 5.95"-6.5"  |
| EXB155            | 155-164 MHz          |  |           | 5.8"-6.3"   |
| EXB161            | 161-174 MHz          |  |           | 5.9"        |
| EXB164            | 164-174 MHz          |  |           | 5.6"-6"     |
| EXB220            | 220-225 MHz          |  |           | 4.1"-4.9"   |
| EXB0              | Untuned              |  |           | 7.12"       |
| <b>SXB Models</b> |                      | <b>MX, SF, SFU</b>   | <b>6</b>  |             |
| SXB145            | 136-149 MHz          |  |           | 5.5"        |
| SXB155            | 150-161 MHz          |  |           | 5.5"        |
| SXB165            | 162-174 MHz          |  |           | 5.5"        |
| <b>EXH Models</b> |                      | <b>SM, SMI, SMV, TN, BN, KR, MD, MX, MXI, SF, SFU</b>                | <b>7</b>  |             |
| EXH150            | 145-155 MHz          |  |           | 10.5"       |
| EXH155            | 150-160 MHz          |  |           | 10.5"       |
| EXH160            | 155-165 MHz          |  |           | 10.5"       |
| EXH170            | 165-175 MHz          |  |           | 10.5"       |
| <b>EXR Models</b> |                      | <b>BN, BNX, MX, MXI, SFU, SMI, SMV</b>                               | <b>8</b>  |             |
| EXR136            | 136-220 MHz          |  |           | 7"-8"       |
| EXR144            | 144-148 MHz          |  |           | 7"-8"       |
| EXR148            | 148-155 MHz          |  |           | 7"-8"       |
| EXR150            | 150-162 MHz          |  |           | 7"-8"       |
| EXR155            | 155-164 MHz          |  |           | 7"-8"       |
| EXR164            | 164-174 MHz          |  |           | 7"-8"       |
| EXR220            | 220-225 MHz          |  |           | 7"-8"       |
| <b>EXS Models</b> |                      | <b>HT, KR, MX, BN, BNX, MXI, SF, SFJ, SFU, SM, SMI, SMV, TN, TNX</b> | <b>9</b>  |             |
| EXS118            | 118-127 MHz          |  |           | 5.10"       |
| EXS127            | 127-136 MHz          |  |           | 3.62"-4.4"  |
| EXS136            | 136-144 MHz          |  |           | 3.62"-4.4"  |
| EXS144            | 144-148 MHz          |  |           | 3.55"-4.45" |
| EXS148            | 148-155 MHz          |  |           | 3.50"-4.39" |
| EXS150            | 150-162 MHz          |  |           | 3.50"-4.39" |
| EXS155            | 155-164 MHz          |  |           | 3.45"-4.20" |
| EXS164            | 164-174 MHz          |  |           | 3.30"-3.95" |
| EXS220            | 220-225 MHz          |  |           | 3.50"-4.39" |
| <b>EXW Models</b> |                      | <b>BNX, MX, TNX</b>  | <b>3</b>  |             |
| EXW136            | 136-162MHz           |  |           | 8.75"       |
| EXW148            | 148-174MHz           |  |           | 8.75"       |
| EXW220            | 220-225MHz           |  |           | 8.75"       |
| EXW 225           | 225-240MHz           |  |           | 8.75"       |
| <b>TS Models</b>  |                      | <b>HT, KR, MX, BN, TN</b>  | <b>10</b> |             |
| TS 118            | 118-174MHz           |  |           | 17"         |
| TS                | Continuous Order 150 |  |           |             |
| <b>V Models</b>   |                      | <b>HT, KR, MX, BN, TN</b>  | <b>11</b> |             |
| V118              | 118-127 MHz          |  |           | 17"         |
| V127              | 127-136 MHz          |  |           | 17"         |
| V136              | 136-144 MHz          |  |           | 17"         |
| V144              | 144-148 MHz          |  |           | 17"         |
| V148              | 148-155 MHz          |  |           | 17"         |
| V150              | 150-162 MHz          |  |           | 17"         |
| V164              | 164-174 MHz          |  |           | 17"         |
| V220              | 220-225 MHz          |  |           | 17"         |

Connector Guide



MX



MD



KR



HT



BN



BNX





Model Frequency Connectors Photo Avg. length

**UHF 300-512 MHz and Dual Band**

| EXC Models |             | KR, MD, MX,<br>BN, BNX, MXI, SF, SFU, SM, SMI, SMV, TN, TNX | 12 |  |           |
|------------|-------------|---|----|--|-----------|
| EXC308     | 308-322 MHz |   |    |  | 6.5"-7"   |
| EXC312     | 312-318 MHz |   |    |  | 6.5"-7"   |
| EXC400     | 400-420 MHz |   |    |  | 6.5"-7"   |
| EXC410     | 410-430 MHz |   |    |  | 6.5"-7"   |
| EXC420     | 420-450 MHz |   |    |  | 6.5"-7"   |
| EXC440     | 440-460 MHz |   |    |  | 6.5"-7"   |
| EXC450     | 450-470 MHz |   |    |  | 6.1"-6.8" |
| EXC470     | 470-512 MHz |   |    |  | 5.9"-6.6" |
| EXC0       | Untuned     |   |    |  | 6"        |

| EXD Models |             | HT, KR, MD, MX,<br>BN, BNX, MXI, SF, SFJ, SFU, SM, SMI, SMV, TN, TNX | 13 |  |             |
|------------|-------------|--|----|--|-------------|
| EXD308     | 308-322 MHz |  |    |  | 3.2"-4.1"   |
| EXD312     | 312-318 MHz |  |    |  | 3.2"-4.1"   |
| EXD400     | 400-420 MHz |  |    |  | 3.2"-4.1"   |
| EXD410     | 410-430 MHz |  |    |  | 3.1"-3.4"   |
| EXD420     | 420-450 MHz |  |    |  | 3.2"-4.1"   |
| EXD450     | 450-470 MHz |  |    |  | 2.95"-3.88" |
| EXD470     | 470-512 MHz |  |    |  | 2.8"-3.6"   |

| EXR Models |             | KR, MX,<br>BN, TN | 14 |  |             |
|------------|-------------|-------------------|----|--|-------------|
| EXR308     | 308-322 MHz |                   |    |  | 6.62"-6.95" |
| EXR312     | 312-318 MHz |                   |    |  | 6.62"-6.95" |
| EXR400     | 400-420 MHz |                   |    |  | 6.62"-6.95" |
| EXR420     | 420-450 MHz |                   |    |  | 6.62"-6.95" |
| EXR450     | 450-470 MHz |                   |    |  | 6.62"-6.95" |
| EXR470     | 470-512 MHz |                   |    |  | 6.62"-6.95" |

| EXW400   | 400-512 MHz | BNX, TNX | 3  |  | 9"  |
|----------|-------------|----------|----|--|-----|
| G Models |             | BN, TN   | 15 |  |     |
| G400     | 400-420 MHz |          |    |  | 10" |
| G420     | 420-450 MHz |          |    |  | 10" |
| G450     | 450-470 MHz |          |    |  | 10" |
| G470     | 470-512 MHz |          |    |  | 10" |

| SXD Models |             | MX, SF, SFU | 16 |  |      |
|------------|-------------|-------------|----|--|------|
| SXD420     | 420-450 MHz |             |    |  | 3.5" |
| SXD440     | 440-470 MHz |             |    |  | 3.5" |

**Trunking and SMR Applications**

|        |             |   |    |  |            |
|--------|-------------|---|----|--|------------|
| EXC806 | 806-866 MHz | HT, KR, MD, MX,<br>BN, BNX, MXI, SF, SFU, SM, SMI, SMV, TN, | 17 |  | 3.70"-4.6" |
| EXC821 | 821-902 MHz | BN, BNX, MD, TNX  |    |  | 3.70"-4.6" |
| EXC902 | 902-960 MHz | SF, SFJ, SFU, SM, SMI, SMV, TN                              |    |  | 3.5"-3.65" |

| EXE Models |             | BN, BNX, MD, SF, SFU, SM, TN, TNX | 18 |  |        |
|------------|-------------|-----------------------------------|----|--|--------|
| EXE806     | 806-866 MHz |                                   |    |  | 8-8.9" |
| EXE821     | 821-802 MHz |                                   |    |  | 8"     |
| EXE902     | 902-960 MHz |                                   |    |  | 8.3"   |

| EXP806 | 806-869 MHz | MD, SF, SFJ, SFU      | 19 |  | 6.9" |
|--------|-------------|-----------------------|----|--|------|
| EXP902 | 896-940 MHz | MD, SF, SFU, SFJ, SMS |    |  | 6.9" |

| EXR Models |               | BN, TN | 20 |  |           |
|------------|---------------|--------|----|--|-----------|
| EXR806     | 806-869 MHz   |        |    |  | 9.25-9.5" |
| EXR821     | 821-902 MHz   |        |    |  | 9.16"     |
| EXR902     | 902-960 MHz   |        |    |  | 9.25-9.5" |
| EXR1850    | 1850-1970 MHz |        |    |  | 9.25-9.5" |

| EXS Models |             | MD, SF, SFJ, SFU, SM, SMS, TN | 21 |  |      |
|------------|-------------|-------------------------------|----|--|------|
| EXS806     | 806-866 MHz |                               |    |  | 2.25 |
| EXS902     | 902-960 MHz |                               |    |  | 2.25 |

Model Radiator Connectors Length

**2.4 GHz Antennas**

|             |          |                      |             |
|-------------|----------|----------------------|-------------|
| EXC2400SM   | 1/4 Wave | SMA                  | 2.5"        |
| EXCN2400RTN | 1/4 Wave | Reverse Polarity TNC | 4"          |
| EXCN2400TN  | 1/4 Wave | TNC                  | 4"          |
| EXE2400TNX  | 1/2 Wave | Covered TNC          | 8"          |
| EXR2400RSM  | 1/2 Wave | Reverse Polarity SMA | Right Angle |
| EXR2400SMA  | 1/2 Wave | SMA                  | Right Angle |
| EXRN2400RBN | 1/2 Wave | Reverse Polarity BNC | Right Angle |
| EXRN2400RTN | 1/4 Wave | Reverse Polarity TNC | Right Angle |
| EXSN2400RSM | 1/4 Wave | Reverse Polarity SMA | 4"          |
| WRX2400TN   | 1/2 Wave | TNC                  | 4"          |



SF SFJ SFU SM TN TNX

Connector Guide



11 12 13



14 15 16



17 18 19



20 21

## Laird Technologies GPS antennas provide low profile, high performance and cost effective mobile communication solutions

### GPS antennas features

- Monitor location with GPS models available in NMO, magnetic, and trunk mount options
- Multiple applications - heavy equipment to luxury automobiles
- Heavy duty spring available on some models
- GPSDS1370P model is ideal for ORBCOMM® applications

Laird Technologies GPS antennas are low profile, high performance and cost-effective solutions for your mobile communications needs. Available in combinations that cover all primary cellular frequencies plus GPS and Satellite Radio, Laird Technologies GPS antennas feature small form factors allowing easy installation virtually anywhere inside or outside a vehicle. Phantom® AVL/GPS antennas are currently utilized by ocean bound freighters monitoring temperature and data while withstanding extreme temperatures, salt water and vibration. With integrated research, tooling, molding, assembly and accelerated life testing facilities around the world, Laird Technologies' engineers will quickly and efficiently create solutions to your wireless challenges.



### Standard NMO Mount GPS antennas GPSU15M

- Small Size - 1½" tall x 2 5/8" diameter
- 3 or 5 Volt bias
- Gold Plated Pushpin Contact

### Technical Data - Product Features & Information

#### GPS Patch Antenna

- |                          |   |
|--------------------------|---|
| • VSWR:                  | 2:1 Typical@1575.42 MHz                   |
| • Operating Temperature: | -40° to 85° C                             |
| • Polarization:          | Right Hand Circular                       |
| • Antenna Description:   | Active Patch Antenna                      |
| • Azimuth Coverage:      | 360°                                      |
| • Impedance:             | 50 ohms                                   |
| • Elevation Coverage:    | 0° - 90°                                  |
| • Operating Voltage:     | 3.0-5.0 Vdc +/- .20 Vdc<br>GPSU15M: 3 Vdc |
| • LNA Gain (GPS Band):   | 26 dB typical@20mA max                    |
| • Cellular Filtering:    | -24 dB                                    |
| • Antenna Height:        | GPSM = 5/8", GPSU = 9/16"                 |
| • Operating Frequency:   | 1575.42 MHz                               |

| Model | Description | Center Freq | Gain | Overall Height | Connector Type | Coax Type |
|-------|-------------|-------------|------|----------------|----------------|-----------|
|-------|-------------|-------------|------|----------------|----------------|-----------|

### NMO Mountable

|          |                                    |             |       |     |     |     |
|----------|------------------------------------|-------------|-------|-----|-----|-----|
| GPSU15M  | NMO GPS - 3 or 5 Volt Bias         | 1575.42 MHz | 26 dB | 1.5 | NMO | NA  |
| GPSUW15M | NMO GPS - 3 or 5 Volt Bias - White | 1575.42 MHz | 26 dB | 1.5 | NMO | NA1 |

### Standard AVL

|          |                   |             |       |       |          |       |
|----------|-------------------|-------------|-------|-------|----------|-------|
| GPS1575P | Low Profile AVL * | 1575.42 MHz | 26 dB | 1.25" | TNC-Male | RG174 |
|----------|-------------------|-------------|-------|-------|----------|-------|

\*Add .625" overall height for all P mount models

### Trunk Mount GPS

|         |                       |             |      |  |  |  |
|---------|-----------------------|-------------|------|--|--|--|
| TM8GPS  | Trunk Mount GPS       | 1575.42 MHz | .75" |  |  |  |
| TMB8GPS | Black Trunk Mount GPS | 1575.42 MHz | .75" |  |  |  |

### GPS Add On Bracket

|           |                                   |             |      |  |  |             |
|-----------|-----------------------------------|-------------|------|--|--|-------------|
| GPSNMOAO  | Bright Stainless Bracket with GPS | 1575.42 MHz | .75" |  |  | 17' - RG174 |
| GPSBNMOAO | Black Stainless Bracket with GPS  | 1575.42 MHz | .75" |  |  | 17' - RG174 |

### Micro GPS Magnetic and Adhesive Base

|             |                   |             |      |     |  |             |
|-------------|-------------------|-------------|------|-----|--|-------------|
| GPS15MGBNC  | Micro GPS Antenna | 1575.42 MHz | .43" | BNC |  | 15' RG174/U |
| GPS15MGSMA  | Micro GPS Antenna | 1575.42 MHz | .43" | SMA |  | 15' RG174/U |
| GPS15MGSMB  | Micro GPS Antenna | 1575.42 MHz | .43" | SMB |  | 15' RG174/U |
| GPS15MG TNC | Micro GPS Antenna | 1575.42 MHz | .43" | TNC |  | 15' RG174/U |

### GPS Glass Mount Antenna

|           |                         |             |       |       |     |             |
|-----------|-------------------------|-------------|-------|-------|-----|-------------|
| GPS15GLSM | GPS Glass Mount Antenna | 1575.42 MHz | 25 dB | 1.25" | SMA | 15' - RG316 |
|-----------|-------------------------|-------------|-------|-------|-----|-------------|



## Low Profile GPS antennas GPSU1575P

- Low profile - 1.5" tall
- P mount



**NEW**

## Micro GPS GPS15MGSMB

- Very Small Size -  
Approx. 1.61" L x 1.42" W x .43" H
- Magnetic or adhesive base available
- Bottom or side exit
- Water proof



**NEW**

## GPS Glass Mount antenna GPS15GLSM

- Low Profile
- Adhesive mount





### Low profile multi-band GPS GPST821/18503P

- Patented field diversity Phantom<sup>®</sup> technology ensures uninterrupted voice and data transmissions in urban canyons and rural drop off areas
- 27 dB active GPS patch with high sensitivity for accurate timing and locating
- Low profile design prevents tampering and is visually pleasing

### Survivor<sup>™</sup> Dual Band GPS antennas

- Highly durable molded housing design survives the harshest of environments and applications - traditional whip with spring options available.
- 26dB active GPS patch antenna provides high performance and sensitivity for accurate locating and timing
- Multiple applications from heavy equipment to luxury automobiles



GPSDS13780GR  
with Magnetic Base  
and Boot Option

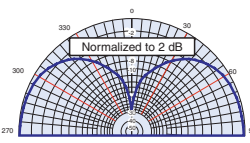
GPSDS1370PLP

| Model   | Description                          | Frequency                     | Gain     | Overall Height | Connector Type | Coax Type |
|---|--------------------------------------|-------------------------------|----------|----------------|----------------|-----------|
| <b>Dual-Band GPS AVL</b>                                      |                                      |                               |          |                |                |           |
| GPSD4503P   | Low Profile AVL w/Phantom*           | 450 - 470 MHz                 | 3 dB-MEG | 3.5"           | TNC-Male       | ATX195    |
| <b>Dual-Band Low Profile GPS AVL</b>                          |                                      |                               |          |                |                |           |
| GPSD7463P   | Low Profile AVL w/Phantom*           | 746 - 786 MHz                 | 3 dB-MEG | 1.25"          | TNC-Male       | ATX195    |
| GPSD8063P   | Low Profile AVL w/Phantom*           | 806 - 866 MHz                 | 3 dB-MEG | 1.25"          | TNC-Male       | ATX195    |
| GPSD8063EP  | As above with ext. 1" mounting nut   | 806 - 866 MHz                 | 3 dB-MEG | 1.25"          | TNC-Male       | ATX195    |
| GPSD8213P   | Low Profile AVL w/Phantom*           | 821 - 896 MHz                 | 3 dB-MEG | 1.25"          | TNC-Male       | ATX195    |
| GPSD8903P   | Low Profile AVL w/Phantom*           | 890 - 960 MHz                 | 3 dB-MEG | 1.25"          | TNC-Male       | ATX195    |
| GPSD9023P   | Low Profile AVL w/Phantom*           | 902 - 928 MHz                 | 3 dB-MEG | 1.25"          | TNC-Male       | ATX195    |
| <b>Tri-Band Low Profile GPS AVL</b>                           |                                      |                               |          |                |                |           |
| GPST821/18503P  | Cell/PCS/GPS Low Profile*            | 821-896 MHz/<br>1850-1990 MHz | 3 dB-MEG | 1.25"          | TNC-Male       | 17-RG174  |
| <b>Dual-Band GPS/Land Based Bar Antenna (No Ground Plane)</b> |                                      |                               |          |                |                |           |
| GPSDL1370APN  | Low Profile Phantom Wideband VHS/GPS | 137 - 150 MHz                 | 3 dB-MEG | 2.2"           | N-Male         | RG58      |
| <b>Survivor<sup>™</sup></b>                                   |                                      |                               |          |                |                |           |
| GPSDS1370P  | Survivor - VHF plus GPS*             | 137 - 150 MHz                 | Unity    | 21.75"         | Optional       | 14'       |
| GPSDS1370PLP  | Survivor - Low Profile VHF plus GPS* | 137 - 150 MHz                 | Unity    | 7.25"          | Optional       | 14'       |
| GPSDS1370G  | Survivor - VHF/GPS w/ Magnetic Base* | 137 - 150 MHz                 | Unity    | 7.25"          | Optional       | 14'       |
| GPSDS7603P  | Survivor - 700 MHz + 3 db Gain*      | 760 - 870 MHz                 | 3 dB     | 14.285"        | Optional       | 14'       |
| GPSDS8060P  | Survivor - 800 MHz + Unit3y Gain*    | 806 - 866 MHz                 | Unity    | 6"             | Optional       | 14'       |
| GPSDS8063P  | Survivor - 800 MHz + 3 db Gain*      | 806 - 866 MHz                 | 3 dB     | 14.285"        | Optional       | 14'       |
| GPSDS8065P  | Survivor - 800 MHz + 5 db Gain*      | 806 - 866 MHz                 | 5 dB     | 26.25"         | Optional       | 14'       |

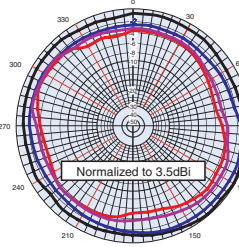
NEW



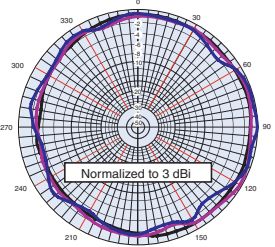
\*Add .625" overall height for all P mount models



GPSDS8060P



821 MHz  
840 MHz  
860 MHz  
880 MHz



1850 MHz  
1910 MHz  
1990 MHz

GPST821/18503P

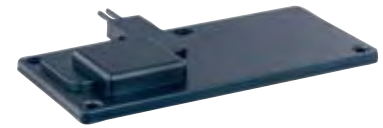
| Model                             | Description                  | Frequency   | Gain    | Connector Type | GPS Connector | Coax Type  |
|-----------------------------------|------------------------------|---|---------|----------------|---------------|------------|
| <b>Internal Mercury™ Tri-Band</b> |                              |   |         |                |               |            |
| <b>3V AMPS/PCS/GPS</b>            |                              |   |         |                |               |            |
| GPST3I824/18503                   | 3V Tri-Band Internal Mercury | AMPS: 824-896 MHz<br>PCS: 1850-1990 MHz<br>GPS: 1575.42 MHz | 3.0 dBi | SMA            | SMA           | 17' RG-174 |
| <b>5V AMPS/PCS/GPS</b>            |                              |   |         |                |               |            |
| GPST5I824/18503                   | 5V Tri-Band Internal Mercury | AMPS: 824-896 MHz<br>PCS: 1850-1990 MHz<br>GPS: 1575.42 MHz | 3.0 dBi | SMA            | SMA           | 17' RG-174 |
| GPST5I880/17103                   | 5V Tri-Band Internal Mercury | AMPS: 880-960 MHz<br>DCS: 1710-1880 MHz<br>GPS: 1575.42 MHz | 3.0 dBi | SMA            | SMA           | 17' RG-174 |

|                                   |                              |  |         |     |     |            |
|-----------------------------------|------------------------------|--|---------|-----|-----|------------|
| <b>External Mercury™ Tri-Band</b> |                              |  |         |     |     |            |
| <b>3V AMPS/PCS/GPS</b>            |                              |  |         |     |     |            |
| GPST3E824/18503                   | 3V Tri-Band External Mercury | AMPS: 824-896 MHz<br>PCS: 1850-1990 MHz<br>GPS: 1575.42 MHz  | 3.5 dBi | SMA | SMA | 17' RG-174 |
| <b>5V AMPS/PCS/GPS</b>            |                              |  |         |     |     |            |
| GPST5E824/18503                   | 5V Tri-Band                  | AMPS: 824-896 MHz<br>PCS: 1850-1990 MHz<br>GPS: 1575.42 MHz" | 3.5 dBi | SMA | SMA | 17' RG-174 |

|                                |  |  |                            |       |       |           |
|--------------------------------|--|--|----------------------------|-------|-------|-----------|
| <b>Roof Mount Tri-Band GPS</b> |  |  |                            |       |       |           |
| GPSTR824/18503                 | 5V Roof Mount Tri-Band                         | AMPS: 824-896 MHz<br>PCS: 1850-1990 MHz<br>GPS: 1575.42 MHz" | 2 dBi<br>1.5 dBi<br>27 dBi | Fakra | Fakra | 10"<br>6" |
| GPSTR824/18503C                | 5V Roof Mount Tri-Band GPS with cable assembly | As above   |                            | TNC*  | SMA*  | 15'       |

\*Other connector options available

| Model  | Description                            | Frequency   | Gain  | Connector Type       | Coax Length |
|--|--|---|---|----------------------|-------------|
| <b>Dual and Quad-Band MicroBlade™ with and without GPS</b> |  |   |   |                      |             |
| MAF90001   | MicroBlade Dual Band                   | AMPS: 824-896 MHz   | 2.3 dBi   | SMA                  | 3m          |
| RG-174   |  | GSM: 880-960 MHz  | 2.3 dBi   |                      |             |
| MAF90002   | MicroBlade Dual Band                   | DCS: 1710-1880 MHz  | 2.1 dBi   | SMA                  | 3m          |
| RG-174   |  | PCS: 1850-1990 MHz  | 3.1 dBi   |                      |             |
| MAF90004   | MicroBlade Dual Band                   | As above  |   | Straight<br>MCX Plug | 9"          |
| GPSQ   | MicroBlade1 QuadBand & GPSIM15 Antenna | AMPS: 824-896 MHz<br>GSM: 880-960 MHz<br>DCS: 1710-1880 MHz<br>PCS: 1850-1990 MHz<br>GPS: 1575.42 MHz | 2.3 dBi<br>2.3 dBi<br>2.1 dBi<br>3.1 dBi<br>2.5 dBi | SMC                  | 5'          |
| Microblade1  | MicroBlade1 Antenna                    | As above without GPS  |   | SMC                  | 5'          |
| GPSIM15  | Internal GPS Antenna - 3 volt          | GPS: 1575.42 MHz  | 2.5 dBi   | SMA                  | 5'          |
| Microblade1W   | MicroBlade1 Antenna Waterproof         | As above without GPS  | 2.3 dBi   | SMC                  | 5'          |



GPST3I824/18503

### Internal Mercury™ Tri-band GPS antennas

- Keeps track of your fleet while providing AMPS and PCS wireless communication
- Low-profile stealth design installs on dashboards or rear decks
- Measures only 5" L x 2.5" W x .5" H



GPST3E824/18503

### External Mercury™ Tri-band GPS antenna:

- Low-profile weatherproof design is an excellent solution for trucks, trailers and tall vehicles
- Transmits voice and data while measuring only 5.625" x 5.125" x .875"
- Sleek durable housing mounts on a ground plane or no ground plane surface

### Roof Mount Tri-band GPS

- Streamlined OEM-style design
- 1.875" x 4" x 3.5"

GPSTR824/18503



GPSQ

MAF90001

### Multi-Band MicroBlade™

- Dual and Quad band models available
- GPSQ measures only 4.94" x 1.34" x .25"



## Mobile Mounts

- All brass construction and gold plated contact design ensure the most corrosion resistance and best power transfer available
- 78 Rockwell Hardness brass material resists corrosion
- Silver soldered ground lug and contact virtually eliminates RF noise or static
- Multiple cable options are available

"O" Ring Seal



### Model Connector Type

#### 3/4" Or 3/8" Hole Alternative Mounts (Cable Not Included)

|        |   |
|--------|---|
| MO     | 3/4 Steel Mount   |
| MBO    | 3/4 Brass Mount for use with RG58 size Cable                        |
| MBOX   | 3/4 Brass Mount for RG8X size Cable                                 |
| MBOF   | 3/4 Brass Mount for Teflon® Cable                                   |
| MABO   | 3/8 Brass Mount for use with RG58 size Cable                        |
| MABTO  | 3/4 or 3/8 Brass Thick Plate Mount for 3/16" to 1/4" thick surfaces |
| MABVTO | 3/4 or 3/8 Hole 1/2" Thick Plane Adjustable Mount Only              |
| MXGPO  | 3/8" snap-in Ground Plane Mount                                     |
| MXO    | Snap-in Mount   |

#### 5/8" Hole Alternative Mounts

|         |   |
|---------|---|
| VTPM    | 1" Extra Thick Plate Mount (UHF Barrel - 1 3/8" total stud length)      |
| VTPM800 | 800 MHz - 1/2" Thick Plate Mount (N Barrel - 1 3/16" total stud length) |

#### 3/4 Hole Brass Mounts\*

##### Models with 17' of RG58A/U Stranded Center Conductor Cable

|        |                            |
|--------|----------------------------|
| MB8    | No Connector               |
| MB8B   | BNC Crimp                  |
| MB8M   | Mini UHF Crimp             |
| MB8N   | N Crimp                    |
| MB8NS  | N Solder                   |
| MB8P   | UHF (PL259) Crimp          |
| MB8PS  | UHF (PL259) Solder         |
| MB8PST | UHF (PL259) Teflon® Solder |
| MB8T   | TNC Crimp                  |

##### Models with 17' of RG58U Solid Center Conductor Cable

|         |                            |
|---------|----------------------------|
| MB8U    | No Connector               |
| MB8UB   | BNC Crimp                  |
| MB8UM   | Mini UHF Crimp             |
| MB8UN   | N Crimp                    |
| MB8UNS  | N Solder                   |
| MB8UP   | UHF (PL259) Crimp          |
| MB8UPST | UHF (PL259) Teflon® Solder |
| MB8UT   | TNC Crimp                  |

##### Models with 17' of RG8X Low Loss Solid Center Conductor Cable

|         |                            |
|---------|----------------------------|
| MB8X    | No Connector               |
| MB8XB   | BNC Crimp                  |
| MB8XM   | Mini UHF Crimp             |
| MB8XN   | N Crimp                    |
| MB8XNS  | N Solder                   |
| MB8XP   | UHF (PL259) Crimp          |
| MB8XPST | UHF (PL259) Teflon® Solder |
| MB8XT   | TNC Crimp                  |

##### Models with 17' of Teflex™ Cable

|        |                            |
|--------|----------------------------|
| MBD    | No Connector               |
| MBDB   | BNC Crimp                  |
| MBDM   | Mini UHF Crimp             |
| MBDN   | N Crimp                    |
| MBDNS  | N Solder                   |
| MBDP   | UHF (PL259) Crimp          |
| MBDPST | UHF (PL259) Teflon® Solder |
| MBDT   | TNC Crimp                  |

##### Models with 17' of Teflon® Cable

|      |                |
|------|----------------|
| MBF  | No Connector   |
| MBFB | BNC Crimp      |
| MBFM | Mini UHF Crimp |
| MBFN | N Crimp        |

##### Models with 17' of ATX195 Cable

|       |  |
|-------|--|
| MB195 | No Connector (Good for higher frequency) |
|-------|--|

#### Installation Accessories

|       |     |                                   |
|-------|-----|-----------------------------------|
| P34   | N/A | Package of 6 - 3/4" Hole Plugs    |
| MOGSK | N/A | Package of 6 - 3/4 Mount Gaskets  |
| MORNG | N/A | Package of O-rings for "M" Mounts |

\*All connectors are shipped loose.  
Choose "I" option for installed connectors

**Model Connector Type**

**3/8 Hole Brass Mounts\***

**Models with 17' of RG58A/U Stranded Center Conductor Cable**

|         |                            |
|---------|----------------------------|
| MAB8    | No Connector               |
| MAB8B   | BNC Crimp                  |
| MAB8M   | Mini UHF Crimp             |
| MAB8N   | N Crimp                    |
| MAB8NS  | N Solder                   |
| MAB8P   | UHF (PL259) Crimp          |
| MAB8PS  | UHF (PL259) Solder         |
| MAB8PST | UHF (PL259) Teflon® Solder |
| MAB8T   | TNC Crimp                  |

**Models with 17' of RG58U Solid Center Conductor Cable**

|          |                            |
|----------|----------------------------|
| MAB8U    | No Connector               |
| MAB8UB   | BNC Crimp                  |
| MAB8UM   | Mini UHF Crimp             |
| MAB8UN   | N Crimp                    |
| MAB8UNS  | N Solder                   |
| MAB8UP   | UHF (PL259) Crimp          |
| MAB8UPST | UHF (PL259) Teflon® Solder |
| MAB8UT   | TNC Crimp                  |

**Models with 17' of RG8X Low Loss Solid Center Conductor Cable**

|          |                            |
|----------|----------------------------|
| MAB8X    | No Connector               |
| MAB8XB   | BNC Crimp                  |
| MAB8XM   | Mini UHF Crimp             |
| MAB8XN   | N Crimp                    |
| MAB8XNS  | N Solder                   |
| MAB8XP   | UHF (PL259) Crimp          |
| MAB8XPST | UHF (PL259) Teflon® Solder |
| MAB8XT   | TNC Crimp                  |

**Models with 17' of Teflex™ Coax**

|         |                            |
|---------|----------------------------|
| MABD    | No Connector               |
| MABDB   | BNC Crimp                  |
| MABDM   | Mini UHF Crimp             |
| MABDN   | N Crimp                    |
| MABDNS  | N Solder                   |
| MABDP   | UHF (PL259) Crimp          |
| MABDPST | UHF (PL259) Teflon® Solder |
| MABDT   | TNC Crimp                  |

**Thick Plane Models\* - up to 1/4"**

**Models with 17' of RG58A/U Stranded Center Conductor Cable**

|         |                    |
|---------|--------------------|
| MABT8   | No Connector       |
| MABT8B  | BNC Crimp          |
| MABT8M  | Mini UHF Crimp     |
| MABT8N  | N Crimp            |
| MABT8P  | UHF (PL259) Crimp  |
| MABT8PS | UHF (PL259) Solder |

**Models with 17' of RG58U Solid Center Conductor Cable**

|         |                   |
|---------|-------------------|
| MABT8U  | No Connector      |
| MABT8UB | BNC Crimp         |
| MABT8UM | Mini UHF Crimp    |
| MABT8UN | N Crimp           |
| MABT8UP | UHF (PL259) Crimp |

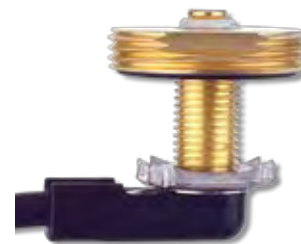
**Thick Plane Models\* - up to 1/2"**

**Models with 17' of RG58A/U Stranded Center Conductor Cable**

|          |                   |
|----------|-------------------|
| MABVT8   | No Connector      |
| MABVT8M  | Mini UHF Crimp    |
| MABVT8B  | BNC Crimp         |
| MABVT8UP | UHF (PL259) Crimp |

**Model with 17' of RG58U Solid Center Conductor Cable**

|         |  |
|---------|--|
| MABVT8U |  |
|---------|--|



**MABVT8**  
Adjusts Up to  
1/2" Thick Mtg. Surface  
3/8" or 3/4" Hole Mount

**Ordering Guide**

**MB8PSI14 =**

3/4" Brass Mount, PL259 Solder Installed,  
14' of RG58A/U

**MB** Mount Style & Hole Style  
M = 3/4" Steel Hole Mounts  
MAB = 3/8" Brass Hole Mounts  
MABT = 3/8" or 3/4" Brass Mounts  
for Thick Plate up to 1/4"  
MABVT = 3/8" or 3/4" Brass Hole  
Mounts Adjustable up to 1/2"  
MB = 3/4" Brass Hole Mounts  
MX = 3/8" Brass Snap-in Hole Mount

**8** Cable Style  
8 = RG58A/U  
8U = RG58U  
8X = RG8X "low loss"  
D = Teflex™  
F = Teflon® Coax Cable  
O = Only (Mount Only-No Cable)  
195=ATX195

**PS** Connector Style  
Blank = No connector  
B = BNC crimp  
M = Mini UHF crimp  
N = N crimp  
NS = N solder  
P = PL259 crimp  
PS = PL259 solder  
PST = PL259 solder Teflon®  
SM = SMA Crimp  
T = TNC crimp

**I** Installation Option  
Blank = Loose connector  
I = Installed connector  
(Add \$1.00 for crimp, \$1.50 for solder.)

**14** Cable Length  
Blank = Standard 17 ft. cable length  
14 = Optional 14 ft. cable length  
Other lengths available upon request

\*All connectors are shipped loose.  
Choose "I" option for installed connectors



GBR8

## Magnetic Mounts

- Corrosion resistant materials used throughout for high durability and weather resistance
- Neoprene seal for moisture protection
- High 80lb pull strength will allow antenna to stay put
- Optional rubber boot provides additional protection to mounting surface
- Triple reinforced coax strain relief eliminates cable pull out
- 3-1/4" diameter



MBC800

## Mobile-to-Base Converters

- Value conscious option for VHF, UHF, 800 MHz and up applications

**Model**                      **Connector Type**

### 3/4" Style Magnetic Mounts\*

#### Chrome Models with 12' of RG58A/U Stranded Center Cable

|       |                              |
|-------|------------------------------|
| G8    | No Connector                 |
| G8B   | BNC Crimp                    |
| G8BI  | BNC Crimp, Installed         |
| G8MI  | Mini UHF Crimp, Installed    |
| G8N   | N Crimp                      |
| G8NS  | N Solder                     |
| G8P   | UHF (PL259) Crimp            |
| G8PI  | UHF (PL259) Crimp, Installed |
| GR8PI | UHF (PL259) Crimp, Installed |
| G8PS  | UHF (PL259) Solder           |
| G8PST | UHF (PL259) Teflon® Solder   |
| G8TI  | TNC Crimp, Installed         |

#### Chrome Models with 12' of RG58U Solid Center Conductor Cable

|        |                            |
|--------|----------------------------|
| G8U    | No Connector               |
| G8UB   | BNC Crimp                  |
| G8UM   | Mini UHF Crimp             |
| G8UN   | N Crimp                    |
| G8UNS  | N Solder                   |
| G8UP   | UHF (PL259) Crimp          |
| G8UPST | UHF (PL259) Teflon® Solder |
| G8UT   | TNC Crimp                  |

#### Chrome Models with 12' of RG8X Low Loss Cable

|        |                            |
|--------|----------------------------|
| G8X    | No Connector               |
| G8XBI  | BNC Crimp, Installed       |
| G8XM   | Mini UHF Crimp             |
| G8XNI  | N Crimp, Installed         |
| G8XNS  | N Solder                   |
| G8XP   | UHF (PL259) Solder         |
| G8XPST | UHF (PL259) Teflon® Solder |

#### Chrome Models with 12' of Teflex™ Cable

|       |                              |
|-------|------------------------------|
| GD    | No Connector                 |
| GDBI  | BNC Crimp, Installed         |
| GDM   | Mini UHF Crimp               |
| GDNI  | N Crimp, Installed           |
| GDNS  | N Solder                     |
| GDPI  | UHF (PL259) Crimp, Installed |
| GDPST | UHF (PL259) Teflon® Solder   |
| GDT   | TNC Crimp                    |

#### Black Models with 12' of RG58A/U Stranded Center Cable

|        |   |
|--------|---|
| GB8    | RG58A/U   |
| GBR8PI | Rubber Boot Option - RG58A/U with PL259 Installed |

Customer specified cable lengths available. Contact your customer service representative.

**Model**                      **Frequency Range**

### Mobile To Base Converter

|          |   |
|----------|---|
| MBC      | Mobile-to-base Converter for VHF and UHF, S0239 Terminated        |
| MBCN     | Mobile-to-base Converter for VHF and UHF, N Terminated            |
| MBC800   | Mobile-to-base Converter for 800 and 900 MHz, N Terminated        |
| MBC800LT | Mobile-to-base Converter for 800 and up, wall mount, N Terminated |

\*All connectors are shipped loose.  
Choose "I" option for installed connectors



**Model**                      **Connector Type**

### 3/4" Style Mini-Magnetic Mounts\*

#### Chrome Models with 12' of RG58A/U Stranded Center Cable

|        |                              |
|--------|------------------------------|
| GM8    | No Connector                 |
| GM8B   | BNC Crimp                    |
| GM8M   | Mini UHF crimp               |
| GM8N   | N Crimp                      |
| GM8NS  | N Solder                     |
| GM8P   | UHF (PL259) Crimp            |
| GM8PI  | UHF (PL259) Crimp, Installed |
| GM8PS  | UHF (PL259) Solder           |
| GM8PST | UHF (PL259) Teflon® Solder   |
| GM8T   | TNC Crimp                    |

#### Chrome Models with 12' of RG58U Solid Center Conductor Cable

|         |                            |
|---------|----------------------------|
| GM8U    | No Connector               |
| GM8UB   | BNC Crimp                  |
| GM8UM   | Mini UHF Crimp             |
| GM8UN   | N Crimp                    |
| GM8UNS  | N Solder                   |
| GM8UP   | UHF (PL259) Crimp          |
| GM8UPST | UHF (PL259) Teflon® Solder |
| GM8UT   | TNC Crimp                  |

#### Chrome Models with 12' of Teflex™ Cable

|        |                              |
|--------|------------------------------|
| GMD    | No Connector                 |
| GMDB   | BNC Crimp                    |
| GMDM   | Mini UHF Crimp               |
| GMDN   | N Crimp                      |
| GMDNS  | N Solder                     |
| GMDPI  | UHF (PL259) Crimp, Installed |
| GMDPST | UHF (PL259) Teflon® Solder   |
| GMDT   | TNC Crimp                    |

#### Black Models with 12' of RG58A/U Stranded Center Cable

|      |              |
|------|--------------|
| GM88 | No Connector |
|------|--------------|

### Mini-trunk Lid Mounts\*

#### Models with 17' RG58A/U Stranded Center Conductor Cable

|        |                            |
|--------|----------------------------|
| TM8    | No Connector               |
| TM88   | No Connector               |
| TM8B   | BNC Crimp                  |
| TM8M   | Mini UHF Crimp             |
| TM8N   | N Crimp                    |
| TM8NS  | N Solder                   |
| TM8P   | UHF (PL259) Crimp          |
| TM8PS  | UHF (PL259) Solder         |
| TM8PST | UHF (PL259) Teflon® Solder |
| TM8T   | TNC Connector              |

#### Models with 17' of RG58U Solid Center Conductor Cable

|         |                            |
|---------|----------------------------|
| TM8U    | No Connector               |
| TM88U   | No Connector               |
| TM8UB   | BNC Crimp                  |
| TM8UM   | Mini UHF Crimp             |
| TM8UN   | N Crimp                    |
| TM8UNS  | N Solder                   |
| TM8UP   | UHF (PL259) Crimp          |
| TM8UPST | UHF (PL259) Teflon® Solder |
| TM8UT   | TNC Crimp                  |

\*All connectors are shipped loose.  
Choose "I" option for installed connectors



GM8

## Miniature Magnetic Mounts

- Ideal for small antennas - 2-3/8" diameter
- 50lb pull strength
- Brass, ceramic magnet, and chrome plated steel materials are very durable and resist corrosion
- Gold plated contact



TM8

## Mini-Trunk Lid Mounts

- Stainless steel brackets and hardware are the ultimate in corrosion resistance
- Elegant design enables proper fit on high tolerance trunk lid seams
- Non staining rubber cushion minimizes scratches and stains
- Gold plated contact



LBBMB8

## Mobile Mount Kits & Brackets

- Conductive black chrome or bright stainless steel trunk groove bracket
- Reliable ground and high durability
- Extruded aluminum mirror mount brackets are stronger and more durable
- Stainless steel hardware - the ultimate in lifetime durability

## Mobile Accessories



Brass Nuts



B&C Coil Springs

**Model**                      **Description**

### Mirror Mount Models

|         |   |
|---------|---|
| LBM9034 | "L" Bracket for Mirror Mount at 90°, 3/4" Hole  |
| LBM9038 | "L" Bracket for Mirror Mount at 90°, 3/8" Hole  |
| LBM4534 | Rt Angle "L" for Mirror Mount at 45°, 3/4" Hole |
| LBM4538 | Rt Angle "L" for Mirror Mount at 45°, 3/8" Hole |

### Black Mirror Mount Models

|          |   |
|----------|---|
| LBM89034 | Black "L" Bracket for Mirror Mount, 3/4" Hole   |
| LBM89038 | Black "L" Bracket for Mirror Mount, 3/8" Hole   |
| LBM84534 | Black Rt Angle "L" for Mirror at 45°, 3/4" Hole |
| LBM84538 | Black Rt Angle "L" for Mirror at 45°, 3/8" Hole |

### Mirror Mount Bracket With 3/4" Mount

|         |  |
|---------|--|
| LBM88PS | 17ft RG58 Cable with sol PL259 on conn |
| LBM88   | 17ft RG58 Cable with no connector      |

### Black Mirror Mount Bracket With 3/4" Mount

|        |                              |
|--------|------------------------------|
| LBBMB8 | 17ft RG58 Cable no connector |
|--------|------------------------------|

### Stainless Trunk Groove Models

|         |   |
|---------|---|
| LBH3400 | Heavy Duty Fender Mount, 3/4" Hole                        |
| LBT3400 | "L" Bracket for Trunk Groove, 3/4" Hole                   |
| LBT3800 | "L" Bracket for Trunk Groove, 3/8" Hole                   |
| LBT8    | "L" Bracket for Trnk Grv, 3/4" Hole w/NMO Mount and Cable |

### Black Stainless Trunk Groove Models

|          |   |
|----------|---|
| LBT83400 | Black "L" Bracket for Trunk Groove, 3/4" Hole |
| LBT83800 | Black "L" Bracket for Trunk Groove, 3/8" Hole |

### Stainless Straight Trunk Groove Models

|          |                                    |
|----------|------------------------------------|
| SBT3400  | Straight Bracket - 3/4" Hole       |
| SBTB3400 | Black Straight Bracket - 3/4" Hole |
| SBH3400  | "L" Bracket for Dodge Ram Trucks   |

### Ferrule Set Screws - Package of 12 -

|          |  |
|----------|--|
| HWS0308  | #10-32 x 1/8" - for A-Base Antennas            |
| HWSB0308 | #10-32 x 1/8" - for A-Base Black Antennas      |
| HWS0316  | #10-32 x 3/16" - for B & C Coil Antennas       |
| HWSB0316 | #10-32 x 3/16" - for B & C Coil Black Antennas |
| HWS8316  | #8-32 x 3/16"                                  |
| HWSB8316 | #8-32 x 3/16" Black                            |

### O-rings and Gaskets - Package of 6

|        |                           |
|--------|---------------------------|
| BCORNG | O-Rings for B & C Coils   |
| MOGSK  | Mount Gaskets for NMO Mt. |
| MORNG  | Mount O-Rings for NMO Mt. |

### Black Body Hole Plugs - Package of 6

|     |                 |
|-----|-----------------|
| P34 | 3/4" Hole Plugs |
| P38 | 3/8" Hole Plug  |

### Quarterwave Field Tunable Ball

|         |             |
|---------|-------------|
| QWFTBL  | Chrome Ball |
| QWFTBBL | Black Ball  |

### Brass Nut

|        |                  |
|--------|------------------|
| MABNUT | Outer 3/8" mount |
| MBNUT  | Outer 3/4" mount |

| Model   | Description   |
|---|---|
| <b>Heat Shrink Tubes</b>                      |   |
| SEALTUBE 1                                    | 1 1" x 1"   |
| SEALTUBE 2                                    | 2 2" x 1"   |
| <b>Mocap Tape and Strips</b>                  |   |
| IASFST  | 36' Roll  |
| IASFST10                                      | Six Pack of 10" Strips  |
| <b>Magnetic Base Rubber Boots</b>             |   |
| GRO   | Magnetic Mount  |
| GMRO  | Miniature Magnetic Mount  |
| <b>Quarterwave Nuts</b>                       |   |
| QWNUT   | Chrome  |
| QWNUTB  | Black   |
| <b>Quarterwave Rain Caps</b>                  |   |
| QWRC  | Chrome  |
| QWRCB   | Black   |
| <b>Springs</b>                                |   |
| AS  | Low Profile Base Chrome Spring  |
| ASB   | Low Profile Base Black Spring   |
| S   | B & C Coil Chrome Spring  |
| SB  | B & C Coil Black Spring   |
| <b>SpringGuard™</b>                           |   |
| SG  | B & C Chrome  |
| SGB   | B & C Black   |
| <b>A-Base</b>                                 |   |
| AO  | Low Profile Base  |
| <b>X-Act™ Hole Saws</b>                       |   |
| HS34  | 3/4"  |
| HS38  | 3/8"  |
| HS34RB  | 3/4" Repl. Blades (2)   |
| HS34DB  | 3/4" Repl. Pilot Drill Bit  |
| HS38DB  | 3/8" Repl. Pilot Drill Bit  |
| <b>Blackhawk™ Noise Suppressors</b>           |   |
| NS1535  | 35 Volt 15 Amp  |
| NS3035  | 35 Volt 30 Amp  |
| <b>Surge Protectors (Lightning Arrestors)</b> |   |
| SP3-90-6-BFF                                  | Bulkhead Surge Protector, Bulkhead N Fem to N Fem, 6KA Discharge, .4dB IL, 3 GHz  |
| SP3-90-6-BFM                                  | Bulkhead Surge Protector, Bulkhead N Fem to N Male, 6KA Discharge, .4dB IL, 3 GHz |
| SP6-230-BFF                                   | DC-6GHz Bulkhead Surge Protector, Bulkhead N Fem to N Fem                         |
| SP6-230-BFM                                   | DC-6GHz Bulkhead Surge Protector, Bulkhead N Fem to N Male                        |
| <b>Replacement Whips</b>                      |   |
| RO49T   | Chrome 42" Tapered w/Ball   |
| ROB49T  | Black 42" Tapered w/Ball  |

Many cable assembly combinations available. Call for information.



X-Act™ Hole Saw  
U.S. Patent No. D377,495



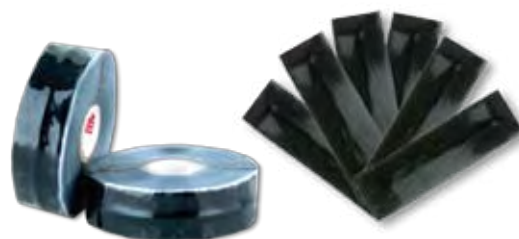
SpringGuard™



SP6-230-BFF  
6 GHz Surge Protector



Magnetic Base Rubber Boot



Mocap Tape roll and strips



Blackhawk™ Noise  
Suppressor

## Cables/connectors

- All Cable assemblies and jumpers 100% tested before shipping ensures best performance
- Most popular lengths in stock
- Custom coaxial cables available
- Automated cable processing for highest accuracy at competitive pricing



| Model | Description | Connector Type |
|-------|-------------|----------------|
|-------|-------------|----------------|

### Bulk Cable

|          |   |      |
|----------|---|------|
| R8100    | 100 foot spool of RG58A/U                     | None |
| R8500    | 500 foot spool of RG58A/U                     | None |
| R81000   | 1000 foot spool of RG58A/U                    | None |
| R8U100   | 100 foot spool of RG58U                       | None |
| R8U500   | 500 foot spool of RG58U                       | None |
| R8U1000  | 1000 foot spool of RG58U                      | None |
| R195100  | 100 foot spool of ATX195                      | None |
| R195500  | 500 foot spool of ATX195                      | None |
| R59100   | 100 foot spool of RG59U (75 Ohm)              | None |
| R59500   | 500 foot spool of RG59U (75 Ohm)              | None |
| R591000  | 1000 foot spool of RG59U (75 Ohm)             | None |
| R8X100   | 100 foot spool of RG8X                        | None |
| R8X500   | 500 foot spool of RG8X                        | None |
| RD100    | 100 foot spool of Teflex™ Teflon® Dual Shield | None |
| RD500    | 500 foot spool of Teflex™ Teflon® Dual Shield | None |
| RF100    | 100 foot spool of Teflon®                     | None |
| RF500    | 500 foot spool of Teflon®                     | None |
| RF1000   | 1000 foot spool of Teflon®                    | None |
| R9913100 | 100 foot spool of 9913                        | None |
| R9913500 | 500 foot spool of 9913                        | None |
| R400100  | 100 foot spool of high performance ATX400     | None |
| R400500  | 500 foot spool of high performance ATX400     | None |

### Precision Cable Assemblies

|             |                                |                           |
|-------------|--------------------------------|---------------------------|
| PT4003NN    | Pigtail 3 foot ATX400          | Crimp N/Crimp N           |
| PT40010NN   | Pigtail 10 foot ATX400         | Crimp N/Crimp N           |
| PT40015NN   | Pigtail 15 foot ATX400         | Crimp N/Crimp N           |
| PT40012NNF  | Pigtail with 12 foot ATX400    | Crimp N/Crimp N Female    |
| PT40025NN   | Pigtail 25 foot ATX400 N to N  | Crimp N/Crimp N           |
| PT40035NN   | Pigtail 35 ft. ATX400 N to N   | Crimp N/Crimp N           |
| PT40050NN   | Pigtail 50 foot ATX400 N to N  | Crimp N/Crimp N           |
| PT40075NN   | Pigtail 75 foot ATX400 N to N  | Crimp N/Crimp N           |
| PT400100NN  | Pigtail 100 foot ATX400 N to N | Crimp N/Crimp N           |
| PT40050NPS  | Pigtail 50 foot ATX400         | N male/PL259 male solder  |
| PT400100NPT | Pigtail 100 foot ATX400        | N male/PL259 Teflon® male |
| PT815NB     | Pigtail 15 foot RG58           | Crimp N/Crimp BNC         |
| PT820NN     | Pigtail 20 foot RG58           | Crimp N/Crimp N           |
| PT850NP     | Pigtail 50 foot RG58A/U        | N male/PL259 male         |
| PT8U40NT    | Pigtail 40 foot RG58U          | Crimp N/TNC Male          |
| PT8X25NN    | Pigtail 25 foot RG8X           | Crimp N male/Crimp N male |
| PT8X50NP    | Pigtail 50 foot RG8X           | N male/PL259 male         |
| PTD5NN      | Pigtail 5 foot Teflex™         | Crimp N male/Crimp N male |
| PTD20PP     | Pigtail 20 foot Teflex™        | PL259 male/PL259 male     |
| PT825PPF    | Pigtail 25 foot RG58A/U        | PL259 male/PL259 female   |

### Crimp Tools, Heat Shrink Tubing And Connector Sealant

|           |   |
|-----------|---|
| SEALTUBE1 | Heat shrink tube 1 inch diameter by 1 inch long                     |
| SEALTUBE2 | Heat shrink tube 1 inch diameter by 2 inch long                     |
| SEALTUBE3 | Self adhesive lined heat shrink tube 3 inch diameter by 1 inch long |
| SEALTUBE4 | Self adhesive lined heat shrink tube 4 inch diameter by 1 inch long |
| IA3MTP22  | Tar pad connector seal  |
| CCT       | Heavy duty crimp tool for RG58 family of connectors                 |
| CCT213    | Heavy duty crimp tool for 213/ATX400 family of connectors           |
| IASFST10  | MOCAP Installation Tape - Six pack of 10" strips                    |
| IASFST    | MOCAP Installation Tape - 36 ft. roll                               |

### Adapters

|         |  |
|---------|--|
| CNFnF   | Type N female to type N female barrel    |
| CNF3    | 3 way type N female "T" silver plated    |
| CNUHFF  | Type N male to UHF female                |
| CPL9CFF | UHF female to UHF female barrel          |
| CPL9CF3 | 3 way UHF female "T"                     |
| CUG175  | UG175U adapter for PL259 to 58 size coax |
| CUG176  | UG176U adapter for PL259 to 8X size coax |

| Model             | Type              | Attach     | Coax    | Finish |
|-------------------|-------------------|------------|---------|--------|
| <b>Connectors</b> |                   |            |         |        |
| CBNC58            | BNC Male          | Crimp-on   | RG58    | N      |
| CMUHF58           | Mini UHF Male     | Crimp-on   | RG58    | N      |
| CMUHF58           | Mini UHF FML      | Crimp-on   | RG58    | N      |
| CN58              | Type N Male       | Crimp-on   | RG58    | N      |
| CN58S             | Type N Male       | Solder-on  | RG58    | N      |
| CNF58             | Type N Female     | Crimp-on   | RG58    | N      |
| CPL9C             | PL259 Male        | Crimp-on   | RG58    | N      |
| CPL9CE            | PL259 M (ext.nut) | Crimp-on   | RG58    | N      |
| CPL9CT            | PL259 Male        | Crimp-on   | RG58    | S      |
| CPL9CF            | PL259 Female      | Crimp-on   | RG58    | N      |
| CPL9S             | PL259 Male        | Solder-on  | RG58    | N      |
| CPL9TS            | PL259 Male        | Solder-on  | RG58    | S      |
| CSN58             | Type N Male       | Crimp-on   | RG58    | S      |
| CTNC58            | TNC Male          | Crimp-on   | RG58    | N      |
| CTNC58F           | TNC Female        | Crimp-on   | RG58    | N      |
| CSMA58            | SMA Male          | Crimp-on   | RG58    | N      |
| CBNC8X            | BNC Male          | Crimp-on   | RG8X    | N      |
| CMUHF8X           | Mini UHF Male     | Crimp-on   | RG8X    | N      |
| CN8X              | Type N Male       | Crimp-on   | RG8X    | N      |
| CPL9C8X           | PL259 Male        | Crimp-on   | RG8X    | N      |
| CTNC8X            | TNC Male          | Crimp-on   | RG8X    | N      |
| CN213             | Type N Male       | Crimp-on   | 213/8U  | N      |
| CN213S            | Type N Male       | Solder-on  | 213/8U  | N      |
| CBNC316           | BNC Male          | Crimp-on   | RG316/U | N      |
| CTNCF316          | TNC Female        | Crimp Jack | RG316/U | N      |
| CBNC400           | BNC Male          | Crimp-on   | ATX400  | N      |
| CN400             | Type N Male       | Crimp-on   | ATX400  | N      |
| CN400S            | Type N Male       | Solder-on  | ATX400  | N      |
| CNF400            | Type N Female     | Crimp-on   | ATX400  | N      |
| CNF400S           | Type N Female     | Solder-on  | ATX400  | N      |
| CPL9C400          | PL259 Male        | Crimp-on   | ATX400  | S      |
| CTNC400           | TNC Male          | Crimp-on   | ATX400  | N      |
| CSMA174           | SMA Male          | Crimp-on   | RG316   | N      |



CPL9CF CNF58



CMUHF58 CBNC316



CN400 CN400S

| Type                 | Center Conductor | Outer Jacket | Dielectric Material       | Nominal O.D. | Nominal Impedance (ohms) | Nominal Capacitance (pf/ft) | Nominal Velocity of Propagation | Shield Cover            | Attenuation (dB/100 ft) |        |        |
|----------------------|------------------|--------------|---------------------------|--------------|--------------------------|-----------------------------|---------------------------------|-------------------------|-------------------------|--------|--------|
|                      |                  |              |                           |              |                          |                             |                                 |                         | 150MHz                  | 450MHz | 900MHz |
| RG58A/U              | Stranded         | Black        | Solid PVC                 | 0.193"       | 50.0                     | 30.8                        | 66%                             | 95% Braid               | 6.20                    | 12.50  | 20.00  |
| RG58/U               | Solid            | Black        | Solid PVC                 | 0.193"       | 53.5                     | 28.5                        | 66%                             | 95% Braid               | 5.40                    | 10.20  | 16.10  |
| ATX 195              | Solid BC         | Black        | Foam Polyethylene         | 0.195"       | 50.0                     | 24.3                        | 85%                             | 100% Braid<br>100% Foil | 4.40                    | 7.80   | 11.10  |
| RG59/U               | Solid            | Black        | Gas Injected PVC          | 0.242"       | 75.0                     | 16.5                        | 82%                             | 67% Braid<br>100% Foil  | 3.80                    | 7.00   | 10.10  |
| Teflex™              | Solid            | White        | Solid Teflon® PVC         | 0.195"       | 50.0                     | 30.0                        | 69%                             | 95% Braid<br>100% Foil  | 4.80                    | 9.00   | 13.50  |
| Teflon®              | Stranded         | White        | Solid Teflon®             | 0.160"       | 50.0                     | 28.5                        | 69%                             | 95% Braid               | 5.80                    | 10.00  | 14.50  |
| RG8X                 | Solid            | Black        | Solid PVC                 | 0.242"       | 50.0                     | 33.0                        | 66%                             | 95% Braid               | 3.60                    | 6.80   | 10.70  |
| RG174                | Stranded         | Black        | Solid Polyethylene        | 0.108"       | 50.0                     | 30.8                        | 66%                             | 88% Braid               | 8.60                    | 15.20  | 22.00  |
| RG213/U              | Stranded         | Black        | Solid PVC                 | 0.405"       | 50.0                     | 32.2                        | 66%                             | 95% Braid               | 2.30                    | 4.50   | 7.60   |
| RG316/U (Non-Plenum) | Stranded         | Tan          | TFE                       | 0.092"       | 50.0                     | 29.0                        | 69.5%                           | 95% Braid               | 10.30                   | 18.70  | 27.30  |
| RG316/U (Plenum)     | Stranded         | White        | Solid Teflon®             | 0.102"       | 50.0                     | 29.0                        | 70.0%                           | 95% Braid               | 12.00                   | 22.00  | 36.00  |
| R9913                | Solid            | Black        | Semi Solid PVC            | 0.405"       | 50.0                     | 24                          | 84%                             | 88% Braid<br>100% Foil  | 1.86                    | 3.40   | 4.90   |
| ATX400               | Solid            | Black        | Gas Injected Polyethylene | 0.405"       | 50.0                     | 23.9                        | 85%                             | 90% Braid<br>100% Foil  | 1.50                    | 2.70   | 3.90   |

## NMO universal antenna mount system

- Easy interchange for Phantom<sup>®</sup>, Phantom Elite<sup>®</sup> mobile load coil, a-base, quarterwave, elevated feed and GPS antennas
- Available in permanent, magnetic, trunk and mirror mount options
- Industry standard 78 Rockwell Hardness brass
- 3/8" and 3/4" hole options



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Contact Laird Technologies for technical assistance, product applications, part number questions, warranty and service questions.

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847.839.6036 Fax  
sales@lairdtech.com  
www.lairdtech.com

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