



# MOBILE ANTENNAS

## Low-Profile Antennas - MLPV Series, High Efficiency



PCTEL's BMLPV-MBLTE-HP antenna provides superior system efficiency and pattern coverage for mobile and fixed applications operating in 4G LTE frequencies. Its design provides industry leading multi-band performance and reliability, with minimum loss and no tuning required. Featuring an attractive, compact housing, this antenna is designed and environmentally tested to withstand severe vibration conditions, making it suitable for rail, mining, and construction applications.

### Features

- Precision machined element delivers superior efficiency over PCB elements
- PTFE and Air dielectric utilized to minimize insertion losses and maximize radiated power
- No solder joint design for extreme vibration installations
- Integrated mount simplifies installation and service
- Non-truncated element design provides stable performance to the lowest LTE frequencies
- Built-in N Female termination accommodates thick surface mounting installations



BMLPV-MBLTE-HP

### STANDARD CONFIGURATION

| Model          | Cable                                        | Connector         | Mount                                                                                                   |
|----------------|----------------------------------------------|-------------------|---------------------------------------------------------------------------------------------------------|
| BMLPV-MBLTE-HP | Mating N Male cable assembly sold separately | N Female bulkhead | Built-in 5/8" hole; 1-1/8" thread N Female bulkhead suitable for installation surfaces up to 1/2" thick |

### ELECTRICAL SPECIFICATIONS (ALL FREQUENCIES)

| Model          | Frequency Range | Efficiency | Gain  | Maximum Power | Polarization     | Nominal Impedance | VSWR    |
|----------------|-----------------|------------|-------|---------------|------------------|-------------------|---------|
| BMLPV-MBLTE-HP | 690-960 MHz /   | >80%       | 3 dBi | 150 watts     | Vertical, linear | 50 ohms           | < 2.5:1 |
|                | 1710-2170 MHz / | >80%       | 3 dBi | 150 watts     | Vertical, linear | 50 ohms           | < 2.5:1 |
|                | 2300-2700 MHz   | >80%       | 3 dBi | 150 watts     | Vertical, linear | 50 ohms           | < 2.5:1 |

### MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

| Model          | Dimensions                         | Weight (Mass)      | Temperature Range                   | Ingress Protection |
|----------------|------------------------------------|--------------------|-------------------------------------|--------------------|
| BMLPV-MBLTE-HP | 1.44 x 3.54 in<br>(3.65 x 9.00 cm) | 0.40 lbs (0.18 kg) | -40°F to +158°F<br>(-40°C to +70°C) | IP66               |

## Low-Profile Antennas - MLPV Series

PCTEL's MLPV antennas provide superior pattern coverage for mobile and fixed applications from 380 MHz to 6 GHz. Their design provides industry leading wideband performance and reliability, with minimum loss and no tuning required. Multi-band versions are also available. All models feature an attractive, compact housing environmentally tested for both indoor or out. Antennas can be purchased separately, or as a kit assembly with the MVPHP mount for permanent installations (VP option).

### Features

- Attractive, low-profile design for maximum overhead clearance
- Industry leading wideband performance provides outstanding coverage across multiple frequency bands with no tuning required
- Wideband, multi-band, and no ground plane models available
- "Easy grip" HD models available
- N Female termination option available on select models (VP Option)



WMLPVB2458VP

### STANDARD CONFIGURATION

MLPV antennas mate with 1-1/8"-18 thread mounts, including mounts (sold separately). For models operating at frequencies over 600 MHz, high frequency mounts are recommended:

**MLFML195C:** High performance permanent mount 3/4" hole, 1-1/8"-18 thread interface. Includes 17 ft of Pro-Flex™ Plus 195 cable. Loose TNC male connector included. Optimized for frequencies over 600 MHz. Configurable.

**GMLFML195C:** High performance magnetic mount 3-1/4" diameter base, 1-1/8"-18 thread interface. Includes 12 ft of Pro-Flex™ Plus 195 cable terminated with TNC male connector (attached). Optimized for frequencies over 600 MHz. Configurable.

**MTPM800:** 5/8" hole, 1-1/8"-18 thread mount for surfaces up to 1/2-inch thick. Terminates in an N Female connector. No cable.\*\* Supports 24 MHz - 6 GHz.

**MVPHF:** 5/8" hole, vandal proof mount. No cable.\*\* Supports 24 MHz - 6 GHz. Add suffix "VP" to the MLPV part number to have this mount permanently installed at the factory. VP option will not be removable from factory installed "VP" antennas. (example: BMLPVDB800/1900SVP.)

**MMF:** 3/4" hole, 1-1/8"-18 mount. Terminates in an SMA, Male connector. No cable.\*\* Supports 24 MHz - 6 GHz.

**MMF-VP:** 3/4" hole vandal-proof mount for frequencies from 0 GHz to 6 GHz. 1-1/8"-18 thread interface. Terminates in SMA, Male connector. No cable\*\*. Accommodates surfaces up to .09-inch thick.

### ELECTRICAL SPECIFICATIONS

| Model             | Frequency Range             | Gain*       | VSWR    | Maximum Power | Nominal Impedance | Polarization |
|-------------------|-----------------------------|-------------|---------|---------------|-------------------|--------------|
| MLPV380           | 380-410 MHz                 | Unity       | < 2.0:1 | 100 watts     | 50 ohms           | Vertical     |
| MLPV406           | 406-440 MHz                 | Unity       | < 2.0:1 | 100 watts     | 50 ohms           | Vertical     |
| MLPV430           | 430-480 MHz                 | Unity       | < 2.0:1 | 100 watts     | 50 ohms           | Vertical     |
| MLPV450           | 450-512 MHz                 | Unity       | < 2.0:1 | 100 watts     | 50 ohms           | Vertical     |
| BMLPVMB/LTE       | 698-2700 MHz                | 3 dBi       | < 2.0:1 | 100 watts     | 50 ohms           | Vertical     |
| WMLPVMB/LTE       | 698-2700 MHz                | 3 dBi       | < 2.0:1 | 100 watts     | 50 ohms           | Vertical     |
| LPBMLPVMB/LTE     | 698-3800 MHz                | 3 dBi       | < 2.0:1 | 100 watts     | 50 ohms           | Vertical     |
| MLPV700           | 740-870 MHz                 | 3 dBi       | < 2.0:1 | 100 watts     | 50 ohms           | Vertical     |
| MLPV800           | 806-960 MHz                 | 3 dBi       | < 2.0:1 | 100 watts     | 50 ohms           | Vertical     |
| BMLPV800HD        | 806-960 MHz                 | 3 dBi       | < 2.0:1 | 100 watts     | 50 ohms           | Vertical     |
| MLPVDB800/1900    | 806-960 MHz & 1710-1990 MHz | 3 dBi/4 dBi | < 2.0:1 | 100 watts     | 50 ohms           | Vertical     |
| BMLPVDB800/1900HD | 806-960 MHz & 1710-1990 MHz | 3 dBi/4 dBi | < 2.0:1 | 100 watts     | 50 ohms           | Vertical     |
| WMLPVDB800/1900S  | 806-960 MHz & 1710-2500 MHz | 3 dBi/4 dBi | < 2.0:1 | 100 watts     | 50 ohms           | Vertical     |
| MLPVDB800/1900S   | 806-960 MHz & 1710-2500 MHz | 3 dBi/4 dBi | < 2.0:1 | 100 watts     | 50 ohms           | Vertical     |
| MLPV1700          | 1.7-2.7 GHz                 | 4 dBi       | < 2.0:1 | 100 watts     | 50 ohms           | Vertical     |
| MLPVDB2458        | 2.4-2.5 GHz & 4.9-5.9 GHz   | 3 dBi/4 dBi | < 2.0:1 | 100 watts     | 50 ohms           | Vertical     |
| BMLPV4900         | 4.9-5.9 GHz                 | 4 dBi       | < 1.5:1 | 150 watts     | 50 ohms           | Vertical     |

\* Measured on a 1 x 1 foot diameter ground plane. Gain is ground plane dependent. \*\*Order cable assembly separately.

## Low-Profile Antennas - MLPV Series



## MECHANICAL SPECIFICATIONS

| Model             | Dimensions                                                   | Weight             | Housing Material            | Color Options**                   |
|-------------------|--------------------------------------------------------------|--------------------|-----------------------------|-----------------------------------|
| MLPV380           | 3.38 H x 1.50 OD in (8.59 x 3.81 cm)                         | 0.31 lbs (.14 kg)  | XENOY 5720U-7014, UV-Stable | Black-Chrome, Black               |
| MLPV406           | 3.38 H x 1.50 OD in (8.59 x 3.81 cm)                         | 0.31 lbs (.14 kg)  | XENOY 5720U-7014, UV-Stable | Black-Chrome, Black               |
| MLPV430           | 3.38 H x 1.50 OD in (8.59 x 3.81 cm)                         | 0.31 lbs (.14 kg)  | XENOY 5720U-7014, UV-Stable | Black-Chrome, Black               |
| MLPV450           | 3.38 H x 1.50 OD in (8.59 x 3.81 cm)                         | 0.31 lbs (.14 kg)  | XENOY 5720U-7014, UV-Stable | Black-Chrome, Black               |
| BMLPVMB/LTE       | 2.40 H X 1.50 OD in (6.10 x 3.81 cm)                         | 0.29 lbs (0.13 kg) | XENOY 5720U-7014, UV-Stable | Black                             |
| WMLPVMB/LTE       | 2.40 H X 1.50 OD in (6.10 x 3.81 cm)                         | 0.29 lbs (0.13 kg) | XENOY 5720U-7014, UV-Stable | White-Chrome                      |
| LPBMLPVMB/LTE     | 2.40 H X 1.50 OD in (6.10 x 3.81 cm)                         | 0.29 lbs (0.13 kg) | XENOY 5720U-7014, UV-Stable | Black-Chrome                      |
| MLPV700           | 2.40 H X 1.50 OD in (6.10 x 3.81 cm)                         | 0.29 lbs (0.13 kg) | XENOY 5720U-7014, UV-Stable | Black-Chrome, Black, White-Chrome |
| MLPV800           | 2.40 H X 1.50 OD in (6.10 x 3.81 cm)                         | 0.29 lbs (0.13 kg) | XENOY 5720U-7014, UV-Stable | Black-Chrome; Black; White-Chrome |
| BMLPV800HD        | At base: 2.40 H x 1.50 W x 1.70 D in (6.10 x 3.81 x 4.32 cm) | 0.44 lbs (0.19 kg) | XENOY 5720U-7014, UV-Stable | Black                             |
| MLPVDB800/1900    | 2.40 H X 1.50 OD in (6.10 x 3.81 cm)                         | 0.29 lbs (0.13 kg) | XENOY 5720U-7014, UV-Stable | Black-Chrome, Black, White-Chrome |
| BMLPVDB800/1900HD | At base: 2.40 H x 1.50 W x 1.70 D in (6.10 x 3.81 x 4.32 cm) | 0.44 lbs (0.19 kg) | XENOY 5720U-7014, UV-Stable | Black                             |
| WMLPVDB800/1900S  | 1.79 H x 1.50 OD in (4.55 x 3.81 cm)                         | 0.29 lbs (0.13 kg) | XENOY 5720U-7014, UV-Stable | White-Chrome                      |
| MLPVDB800/1900S   | 1.79 H x 1.50 OD in (4.55 x 3.81 cm)                         | 0.29 lbs (0.13 kg) | XENOY 5720U-7014, UV-Stable | Black-Chrome                      |
| MLPV1700          | 1.79 H x 1.50 OD in (4.55 x 3.81 cm)                         | 0.34 lbs (0.15 kg) | XENOY 5720U-7014, UV-Stable | Black-Chrome, Black, White-Chrome |
| MLPVDB2458        | 1.79 H x 1.50 OD in (4.55 x 3.81 cm)                         | 0.34 lbs (0.15 kg) | XENOY 5720U-7014, UV-Stable | Black-Chrome, Black, White-Chrome |
| BMLPV4900         | 1.79 H x 1.50 OD in (4.55 x 3.81 cm)                         | 0.34 lbs (0.15 kg) | XENOY 5720U-7014, UV-Stable | Black                             |

## ENVIRONMENTAL SPECIFICATIONS (ALL MODELS)

| Temperature Range | Ingress Protection |
|-------------------|--------------------|
| -40°C to +85°     | IP67****           |

\*\*\* Black-Chrome is standard for all MLPV models, unless otherwise indicated.  
 For all black option, add prefix "B" to the MLPV part number. Example: BMLPV800.  
 For White-Chrome option, add prefix "W" to the MLPV part number. Example: WMLPV800.  
 \*\*\*\* When installed and tested according to PCTEL installation instructions.

## No Ground Plane MLPV Low-Profile Vertical Antennas

PCTEL's low-profile antennas provide superior pattern coverage for mobile and fixed applications. The no ground plane design provides industry leading performance and reliability, with minimum loss and no tuning required. This antenna series features an attractive, compact housing ideal for both indoor or outdoor applications. Antennas can be purchased separately, or as a kit assembly with the MVPHP mount for permanent installations (VP option).

### Features

- Attractive, low-profile design for maximum overhead clearance
- Industry leading performance provides outstanding coverage across multiple frequency bands without a ground plane
- IP67 rated for ingress protection against severe environmental conditions
- Mates with all 1-1/8"-18 thread mounts, including 3/4" mounts
- N Female termination option available on select models (VP Option)



BMLPV900NGPVP



BMLPVMBLTENGVP

### STANDARD CONFIGURATION

MLPV antennas mate with 1-1/8"-18 thread mounts, including 3/4" mounts (sold separately). For models operating at frequencies over 600 MHz, high frequency mounts are recommended:

**MLFML195C:** High performance permanent mount 3/4" hole, 1-1/8"-18 thread interface. Includes 17 ft of Pro-Flex™ Plus 195 cable. Loose TNC male connector included. Optimized for frequencies over 600 MHz. Configurable.

**GMLFML195C:** High performance magnetic mount 3-1/4" diameter base, 1-1/8"-18 thread interface. Includes 12 ft of Pro-Flex™ Plus 195 cable terminated with TNC male connector (attached). Optimized for frequencies over 600 MHz. Configurable.

**MTPM800:** 5/8" hole, 1-1/8"-18 thread mount for surfaces up to 1/2-inch thick. Terminates in an N Female connector. No cable.\*\* Supports 24 MHz - 6 GHz.

**MVPHF:** 5/8" hole, vandal proof mount. No cable.\*\* Supports 24 MHz - 6 GHz. Add suffix "VP" to the MLPV part number to have this mount permanently installed at the factory. VP option will not be removable from factory installed "VP" antennas. (example: BMLPV900VP)

**MMF:** 3/4" hole, 1-1/8"-18 mount. Terminates in an SMA, Male connector. No cable.\*\* Supports 24 MHz - 6 GHz.

**MMF-VP:** 3/4" hole vandal-proof mount for frequencies from 0 GHz to 6 GHz. 1-1/8"-18 thread interface. Terminates in SMA, Male connector. No cable\*\*. Accommodates surfaces up to .09-inch thick.

### ELECTRICAL SPECIFICATIONS

| Model        | Frequency Range             | Gain* | VSWR    | Maximum Power | Nominal Impedance | Polarization     |
|--------------|-----------------------------|-------|---------|---------------|-------------------|------------------|
| BMLPV900NGP  | 902-928 MHz                 | Unity | < 2.0:1 | 100 watts     | 50 ohms           | Vertical, linear |
| BMLPV2400NGP | 2400-2500 MHz               | 3 dBi | < 2.0:1 | 100 watts     | 50 ohms           | Vertical, linear |
| BMLPVMBLTENG | 698-960 MHz / 1710-2700 MHz | 3 dBi | < 2.0:1 | 100 watts     | 50 ohms           | Vertical, linear |
| WMLPVMBLTENG | 698-960 MHz / 1710-2700 MHz | 3 dBi | < 2.0:1 | 100 watts     | 50 ohms           | Vertical, linear |

### MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

| Model        | Dimensions                           | Weight             | Housing Material                                       | Temperature Range | Color             |
|--------------|--------------------------------------|--------------------|--------------------------------------------------------|-------------------|-------------------|
| BMLPV900NGP  | 1.50 OD x 3.38 H in (3.81 x 8.59 cm) | 0.31 lbs (.14 kg)  | Chrome Coil - Bushing ZINC<br>Top Cover - ZINC DIECAST | -40° C to +85°C   | Black             |
| BMLPV2400NGP | 1.50 OD x 3.38 H in (3.81 x 8.59 cm) | 0.31 lbs (.14 kg)  |                                                        | -40° C to +85°C   | Black             |
| BMLPVMBLTENG | 1.44 OD x 3.54 H in (3.66 x 8.99 cm) | 0.40 lbs (0.18 kg) |                                                        | -40° C to +85°C   | Black             |
| WMLPVMBLTENG | 1.44 OD x 3.54 H in (3.66 x 8.99 cm) | 0.40 lbs (0.18 kg) |                                                        | -40° C to +85°C   | White over Chrome |

\*Measured on a 4 foot diameter ground plane. Gain is ground plane dependent.

## Ultra-Wideband High Performance Low-Profile Antenna



This PCTEL antenna offers ultra-wideband coverage, easy to install design, and “top shelf” materials to provide maximum durability and performance for mobile communications.

### Features

- No tune, multi-band coverage: 4G LTE (698 MHz to 6 GHz)
- Highly efficient, carrier grade design to support modern voice/data mobile networks
- Metal 3/4-inch stud mount with slotted jam nut provides single cable exit for easier installation and/or antenna replacement
- Attractive, low-profile design for maximum installation flexibility without antenna orientation restrictions
- IP67\* compliant design with custom overmolded gasket provides maximum protection against water or dust ingress under severe environmental conditions (when properly installed on a rooftop surface)
- High performance, low loss cable and high quality connectors for maximum RF system efficiency



PCTUWB-W

### STANDARD CONFIGURATION

| Model    | Cable                                       | Connector                | Mount                                                                               |
|----------|---------------------------------------------|--------------------------|-------------------------------------------------------------------------------------|
| PCTUWB-W | 17 feet Pro-Flex™ Plus low loss RG-58 cable | SMA Plug (Male) standard | Built-in 3/4-inch long (.75") zinc stud mount with dual jam nuts for 3/4-inch holes |

### ELECTRICAL SPECIFICATIONS

| Model    | Frequency Range                              | Gain**                                | VSWR    | Maximum Power | Nominal Impedance | Polarization     |
|----------|----------------------------------------------|---------------------------------------|---------|---------------|-------------------|------------------|
| PCTUWB-W | 698-2700 MHz<br>3300-3800 MHz<br>4.9-5.9 GHz | 1.7-2.8 dBi<br>2.5-3 dBi<br>3-3.5 dBi | < 2.0:1 | 50 watts      | 50 ohms           | Vertical, linear |

### MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

| Model    | Dimensions                        | Housing Material              | Ingress protection | Temperature Range |
|----------|-----------------------------------|-------------------------------|--------------------|-------------------|
| PCTUWB-W | 5.2 OD x 2.8 H in (13.2 x 7.1 cm) | White UV-Stable Polycarbonate | IP67*              | -40°C to +85°C    |

\* When properly installed per PCTEL instructions.

\*\* Measured on a 4-foot diameter ground plane. Gain value is measured at the end of the 17 foot coax.

## Multi-Band LTE MIMO



PCTEL's Max-Matics Trooper antenna provides optimal 4G LTE coverage in a single, low-profile housing. The antenna also incorporates PCTEL's high rejection GPS technology for optimal performance and support of carrier voice and data networks.

### Features

- No tune, multi-band coverage: dual 4G LTE
- Metal 3/4-inch stud mount with slotted jam nut provides single cable exit for easier installation and/or antenna replacement
- IP67 compliant design provides maximum protection against water or dust ingress under severe environmental conditions\*
- UV-resistant black or white housing options complement most vehicular aesthetic requirements



Trooper -  
Permanent Mount

### STANDARD CONFIGURATION

| Model         | Cable                                   | Connector      | Mount                                                          | Housing Color |
|---------------|-----------------------------------------|----------------|----------------------------------------------------------------|---------------|
| PCTHPDLTE-LTB | Two-17 feet Pro-Flex™ Plus 195 (4G LTE) | SMA Plug (LTE) | 1-inch hole, 3/4-inch long (.75") zinc stud mount with jam nut | Black         |
| PCTHPDLTE-LTW | Two-17 feet Pro-Flex™ Plus 195 (4G LTE) | SMA Plug (LTE) | 1-inch hole, 3/4-inch long (.75") zinc stud mount with jam nut | White         |

### ELECTRICAL SPECIFICATIONS - RF ANTENNA

| Model         | Elements                 | Operating Frequencies     | Polarization     | Nominal Impedance | Gain** (typical) | Maximum Power | VSWR*** |
|---------------|--------------------------|---------------------------|------------------|-------------------|------------------|---------------|---------|
| PCTHPDLTE-LTB | 4G LTE Elements (2 each) | 698-960 MHz/1710-2700 MHz | Vertical, linear | 50 ohms           | 2.5 dBi          | 50 watts      | < 2.0:1 |
| PCTHPDLTE-LTW | 4G LTE Elements (2 each) | 698-960 MHz/1710-2700 MHz | Vertical, linear | 50 ohms           | 2.5 dBi          | 50 watts      | < 2.0:1 |

### MECHANICAL SPECIFICATIONS

| Dimensions (W x H)                 | Radome Construction                  | Operating/Storage Temperature | Gasket Design & Construction                                                                                                                                                                                           |
|------------------------------------|--------------------------------------|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4.05 W x 3.46 H in (10.3 x 8.8 cm) | UV-Stable Rugged Thermoplastics **** | -40°C to +85°C                | Contour matching, conformable, thermoplastic-elastomer gasket designed to seal between radome and baseplate. Gasket flexes and conforms to contoured surfaces. Baseplate has a 3M™ VHB mounting pad for anti-rotation. |

\* If installed according to PCTEL's installation instructions \*\* Measured on a 4-foot diameter ground plane. Gain value is measured at the base of the antenna (no cable loss included).  
 \*\*\* VSWR < 2:1 across all bands when measured on 1-ft diameter ground plane with 17-ft cable. When measured on 1-ft diameter ground plane with 1-ft cable, VSWR < 2:1 698-960MHz, <2:1 1710-2170MHz, and < 2.5:1 2300-2700MHz. \*\*\*\* For white radome option, add suffix "W" to the part number. (GPSDLTEMIMO-LTW)

## LTE MIMO, Dual 802.11n Multi-Band Antenna

PCTEL's dual LTE MIMO antenna provides dual LTE coverage in a single low-profile housing. Models with Wi-Fi add-on option are also available.

### Features

- No tune, multi-band coverage: 4G LTE MIMO; Wi-Fi options available
- Metal 1-inch stud mount with slotted jam nut provides single cable exit for easier installation and/or antenna replacement
- IP67 compliant design provides maximum protection against water or dust ingress under severe environmental conditions\*
- High performance, low loss cable and high quality connectors for maximum RF system efficiency
- UV-resistant black or white housing options complement most vehicular aesthetic requirements



PCTHPDLTE-SF



BPCTHPDLTE-SF

### STANDARD CONFIGURATION

| Model            | Connector                     | Cable                                                                             | Mount                                                                      |
|------------------|-------------------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| PCTHPDLTEMIMO-SF | MSMA (LTE)<br>RP-MSMA (Wi-Fi) | Two-17 feet Pro-Flex™ Plus 195 (4G LTE)<br>Two-17 feet Pro-Flex™ Plus 195 (Wi-Fi) | Built-in 3/4-inch long (.75") zinc stud mount with jam nut for 1-inch hole |
| PCTHPDLTE-SF     | MSMA (LTE)                    | Two-17 feet Pro-Flex™ Plus 195 (4G LTE)                                           |                                                                            |
| PCTHPDLTEWIFI-SF | MSMA (LTE)<br>RP-MSMA (Wi-Fi) | Two-17 feet Pro-Flex™ Plus 195 (4G LTE)<br>One-17 feet Pro-Flex™ Plus 195 (Wi-Fi) |                                                                            |

### ELECTRICAL SPECIFICATIONS

| Model            | Elements                                    | Frequency Range                                          | Gain**             | VSWR*** | Polarization     | Nominal Impedance | Maximum Power |
|------------------|---------------------------------------------|----------------------------------------------------------|--------------------|---------|------------------|-------------------|---------------|
| PCTHPDLTEMIMO-SF | 4G LTE (2 each)<br>Dual-Band Wi-Fi (2 each) | 698-960 MHz / 1710-2700 MHz<br>2.4-2.5 GHz / 4.9-5.9 GHz | 2.5 dBi<br>3-4 dBi | < 2.0:1 | Vertical, linear | 50 ohms           | 50 watts      |
| PCTHPDLTE-SF     | 4G LTE (2 each)                             | 698-960 MHz / 1710-2700 MHz                              | 2.5 dBi            | < 2.0:1 | Vertical, linear | 50 ohms           | 50 watts      |
| PCTHPDLTEWIFI-SF | 4G LTE (2 each)<br>Dual-Band Wi-Fi (1 each) | 698-960 MHz / 1710-2700 MHz<br>2.4-2.5 GHz / 4.9-5.9 GHz | 2.5 dBi<br>3-4 dBi | < 2.0:1 | Vertical, linear | 50 ohms           | 50 watts      |

### MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

| Dimensions                    | Gasket Design & Construction                                                                                                                                                                                           | Temperature Range | Radome & Baseplate Construction             |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------------------------------------|
| 5.2 x 3.4 in<br>(132 x 94 mm) | Contour matching, conformable, thermoplastic-elastomer gasket designed to seal between radome and baseplate. Gasket flexes and conforms to contoured surfaces. Baseplate has a 3M™ VHB mounting pad for anti-rotation. | -40°C to +85°C    | White UV-Stable<br>CYCOLOY C6200 Radome**** |

\*When properly installed on a vehicle rooftop per PCTEL installation instructions. 3M is a trademark of 3M Company.

\*\* Measured on a 4-foot diameter ground plane. Gain value is measured at the base of the antenna (no cable loss included). \*\*\* VSWR < 2:1 across all bands when measured on 1-ft diameter ground plane with 17-ft cable. When measured on 1-ft diameter ground plane with 1-ft cable, VSWR < 2:1 698-960MHz, <2:1 1710-2170MHz, and < 2.5:1 2170-2700MHz. \*\*\*\* Black radome option also available. Add "B" in front of part number for black radome option.

## LTE MIMO Multi-Band Antenna with Magnetic Base

PCTEL's magnetic LTE MIMO multi-band antenna provides optimal 4G LTE MIMO coverage in a single, low-profile housing.

### Features

- No tune, multi-band coverage: 4G LTE
- Magnetically mounted using heavy-duty internal rare earth magnets
- Rubber pad on the bottom of the antenna prevents slippage and protects the mounting surface
- Attractive low-profile housing for added overhead clearance
- IP67 compliant design provides maximum protection against water or dust ingress under severe environmental conditions\*\*\*
- High performance, low loss cable and high quality connectors for maximum RF system efficiency
- UV-resistant black or white housing options complement most vehicular aesthetic requirements



PCTHPDLTE-SF-MM



BPCTHPDLTE-SF-MM

### STANDARD CONFIGURATION

| Model            | Cable                          | Connector | Mount        | Housing Color |
|------------------|--------------------------------|-----------|--------------|---------------|
| PCTHPDLTE-SF-MM  | Two-17 feet Pro-Flex™ Plus 195 | SMA Plug  | Magnet Mount | White         |
| BPCTHPDLTE-SF-MM | Two-17 feet Pro-Flex™ Plus 195 | SMA Plug  | Magnet Mount | Black         |

### ELECTRICAL SPECIFICATIONS (BOTH MODELS)

| Elements                 | Frequency Range                             | Gain*   | VSWR**  | Polarization     | Nominal Impedance | Maximum Power |
|--------------------------|---------------------------------------------|---------|---------|------------------|-------------------|---------------|
| 4G LTE Elements (2 each) | 698-960 MHz / 1710-2170 MHz / 2300-2700 MHz | 2.5 dBi | < 2.0:1 | Vertical, linear | 50 ohms           | 50 watts      |

### MECHANICAL & ENVIRONMENTAL SPECIFICATIONS (BOTH MODELS)

| Dimensions                    | Gasket Design & Construction                                                                        | Ingress Protection | Temperature Range | Radome & Baseplate Construction |
|-------------------------------|-----------------------------------------------------------------------------------------------------|--------------------|-------------------|---------------------------------|
| 5.2 x 3.4 in<br>(132 x 94 mm) | Anti-skid liner installed at contact surface to ensure a high friction and mar-free magnetic mount. | IP67***            | -40°C to +85°C    | UV-Stable Rugged Thermoplastics |

\* Measured on a 4-foot diameter ground plane. Gain value is measured at the base of the antenna (no cable loss included).

\*\* VSWR < 2:1 across all bands when measured on 1-ft diameter ground plane with 17-ft cable. When measured on 1-ft diameter ground plane with 1-ft cable, VSWR < 2:1 698-960MHz, <2:1 1710-2170MHz, and < 2.5:1 2170-2700MHz.

\*\*\* When properly installed on a vehicle rooftop per PCTEL installation instructions. 3M is a trademark of 3M Company.



## Coach™ Multi-Band MIMO Antennas for 802.11ac Permanent Mount Applications

The PCTHPMIMO-SF platform enables high data rate connectivity for fleet, rail, mass transit, public safety, and M2M applications. Each low-profile antenna model supports dual-band 2.4/5 GHz MIMO for 802.11n and 802.11ac WLAN standards, combining multiple antenna elements into one IP67-rated housing. A single stud mount cable exit simplifies permanent installations. Black or white radome options are available. This platform is also available in magnetic mount configurations.

### Features

- Multi-band coverage of 2.3-2.8 GHz and 4.9-5.9 GHz frequencies
- Dual-band integrated elements terminated with high performance, low loss RG-58/U stranded cable and high quality connector for maximum RF system efficiency
- Metal stud mount with slotted jam nut provides single cable exit for easier installation and/or antenna replacement
- Attractive low-profile design for maximum installation flexibility without antenna orientation restrictions
- IP67 compliant design with custom overmolded gasket provides maximum protection against water or dust ingress under severe environmental conditions\*\*
- UV-resistant black or white housing options complement most vehicular aesthetic requirements



PCTHPMIMO-6-SF



PCTHPMIMO-4-SF

### STANDARD CONFIGURATION

| Model          | Cable                                                     | Connector                 | Mount                                                                    | MIMO Elements |
|----------------|-----------------------------------------------------------|---------------------------|--------------------------------------------------------------------------|---------------|
| PCTHPMIMO-6-SF | Six (6) 17-foot Pro-Flex™ Plus 195 stranded cable leads   | Reverse Polarity SMA Male | 1-inch hole (25.4 mm) slotted stud mount with 3/4-16 UNF slotted hex-nut | 6             |
| PCTHPMIMO-4-SF | Four (4) 17-foot Pro-Flex™ Plus 195 stranded cable leads  | Reverse Polarity SMA Male | 1-inch hole (25.4 mm) slotted stud mount with 3/4-16 UNF slotted hex-nut | 4             |
| PCTHPMIMO-3-SF | Three (3) 17-foot Pro-Flex™ Plus 195 stranded cable leads | Reverse Polarity SMA Male | 1-inch hole (25.4 mm) slotted stud mount with 3/4-16 UNF slotted hex-nut | 3             |
| PCTHPMIMO-2-SF | Two (2) 17-foot Pro-Flex™ Plus 195 stranded cable leads   | Reverse Polarity SMA Male | 1-inch hole (25.4 mm) slotted stud mount with 3/4-16 UNF slotted hex-nut | 2             |

### ELECTRICAL SPECIFICATIONS

| Model          | Frequency Range           | Gain*             | VSWR    | Polarization     | In-Band Isolation Between Elements | E-Plane Beamwidth | Maximum Power |
|----------------|---------------------------|-------------------|---------|------------------|------------------------------------|-------------------|---------------|
| PCTHPMIMO-6-SF | 2.3-2.8 GHz / 4.9-5.9 GHz | 1.5 dBi / 0.5 dBi | < 2.0:1 | Vertical, linear | 23 dB, 26 dB                       | 30°, 25°          | 25 watts      |
| PCTHPMIMO-4-SF | 2.3-2.8 GHz / 4.9-5.9 GHz | 1.5 dBi / 0.5 dBi | < 1.8:1 | Vertical, linear | 23 dB, 26 dB                       | 30°, 25°          | 25 watts      |
| PCTHPMIMO-3-SF | 2.3-2.8 GHz / 4.9-5.9 GHz | 1.5 dBi / 0.5 dBi | < 1.8:1 | Vertical, linear | 23 dB, 26 dB                       | 30°, 25°          | 25 watts      |
| PCTHPMIMO-2-SF | 2.3-2.8 GHz / 4.9-5.9 GHz | 1.5 dBi / 0.5 dBi | < 1.8:1 | Vertical, linear | 23 dB, 26 dB                       | 30°, 25°          | 25 watts      |

### MECHANICAL & ENVIRONMENTAL SPECIFICATIONS (ALL MODELS)

| Model          | Dimensions                     | Radome & Baseplate Construction          | Temperature Range | Ingress Protection |
|----------------|--------------------------------|------------------------------------------|-------------------|--------------------|
| PCTHPMIMO-6-SF | 5.3 x 3.5 in (136.5 x 89.7 mm) | White UV-Stable Rugged Thermoplastics*** | -40° to +80° C    | IP67**             |
| PCTHPMIMO-4-SF | 5.4 x 2.7 in (137 x 67 mm)     | White UV-Stable Rugged Thermoplastics*** | -40° to +80° C    | IP67**             |
| PCTHPMIMO-3-SF | 5.4 x 2.7 in (137 x 67 mm)     | White UV-Stable Rugged Thermoplastics*** | -40° to +80° C    | IP67**             |
| PCTHPMIMO-2-SF | 5.4 x 2.7 in (137 x 67 mm)     | White UV-Stable Rugged Thermoplastics*** | -40° to +80° C    | IP67**             |

\* Measured at the end of the coax, \*\* When properly installed on rooftop surface, according to PCTEL installation instructions \*\*\* Black radome option available. Add "B" prefix to part number for black radome option.

## Multi-Band MIMO Antennas for 802.11ac Temporary Mount Applications

The PCTHPMIMO-SF-MM platform enables high data rate connectivity for fleet, rail, mass transit, public safety, and M2M applications. Each low-profile antenna model supports dual-band 2.4/5 GHz MIMO for 802.11n and 802.11ac WLAN standards, combining multiple antenna elements into one IP67-rated housing. This platform features heavy-duty rare earth magnets for secure, temporary installations. Black or white radome options, as well as permanent mount configurations are also available.

### Features

- Multi-band coverage of 2.4-2.5 GHz and 4.9-5.9 GHz frequencies
- Dual-band integrated elements terminated with high performance, low loss RG-58/U stranded cable and high quality connector for maximum RF system efficiency
- Magnetically mounted using heavy-duty internal rare earth magnets
- Rubber pad on the bottom of the antenna prevents slippage and protects the mounting surface
- Attractive low-profile design for maximum installation flexibility without antenna orientation restrictions
- IP67 compliant design with custom overmolded gasket provides maximum protection against water or dust ingress under severe environmental conditions\*\*\*
- UV-resistant white or black housing complements most vehicular aesthetic requirements



PCTHPMIMO-4-MM



BPCTHPMIMO-4-MM

### STANDARD CONFIGURATION

| Model          | Cable                                                     | Connector                 | Mount        | MIMO Elements |
|----------------|-----------------------------------------------------------|---------------------------|--------------|---------------|
| PCTHPMIMO-4-MM | Four (4) 17-foot Pro-Flex™ Plus 195 stranded cable leads  | Reverse Polarity SMA Male | Magnet Mount | 4             |
| PCTHPMIMO-3-MM | Three (3) 17-foot Pro-Flex™ Plus 195 stranded cable leads | Reverse Polarity SMA Male | Magnet Mount | 3             |
| PCTHPMIMO-2-MM | Two (2) 17-foot Pro-Flex™ Plus 195 stranded cable leads   | Reverse Polarity SMA Male | Magnet Mount | 2             |

### ELECTRICAL SPECIFICATIONS (ALL MODELS)

| Frequency Range           | Gain*   | VSWR    | Maximum Power | Polarization     | Nominal Impedance |
|---------------------------|---------|---------|---------------|------------------|-------------------|
| 2.4-2.5 GHz / 4.9-5.9 GHz | 3-4 dBi | < 2.0:1 | 25 watts      | Vertical, linear | 50 ohms           |

### MECHANICAL SPECIFICATIONS & ENVIRONMENTAL SPECIFICATIONS (ALL MODELS)

| Dimensions                   | Housing Material**                    | Temperature Range | Ingress Protection |
|------------------------------|---------------------------------------|-------------------|--------------------|
| 3.6 x 5.1 in (9.1 x 12.9 cm) | White UV-stable rugged thermoplastics | -40° to +80° C    | IP67***            |

\* Measured at the end of the coax

\*\* Antennas each have black and white color options. To order the black model, please add a "B" before the model number.

\*\*\* When properly installed on rooftop surface, according to PCTEL installation instructions

## Covert 2.4 GHz Glass Mount Covert Antenna



The Hush WV-COVWIFI 2.4 GHz ISM antenna is an excellent choice for Telematics systems with applications requiring a discreet, low-profile antenna solution. This overmolded antenna can be installed inside or outside vehicles for maximum placement flexibility.

### Features

- Wideband 2.3-2.5 GHz operation (no field tuning required)
- IP67 rated, overmolded design suitable for outdoor installations
- Glass mount installation, inside or outside the vehicle
- Low-profile design for covert applications



WV-COVWIFI

### STANDARD CONFIGURATION

| Model      | Mounting Method        | Cable      | Connector                 |
|------------|------------------------|------------|---------------------------|
| WV-COVWIFI | Glass Mount (VHB Tape) | 3 ft RG316 | Reverse Polarity SMA Male |

### ELECTRICAL SPECIFICATIONS - RF ANTENNA

| Frequency Range | Nominal Impedance | VSWR         | Maximum Power | Nominal Gain |
|-----------------|-------------------|--------------|---------------|--------------|
| 2.3-2.5 GHz     | 50 Ohm            | $\leq 2.0:1$ | 10 watts      | 2.5 dBi      |

### MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

| Dimensions                                        | Weight                | Housing Material                             | Temperature Range        | Ingress Protection*                                                              |
|---------------------------------------------------|-----------------------|----------------------------------------------|--------------------------|----------------------------------------------------------------------------------|
| 2.25 L x .75 W x .17 D in<br>(57.1 x 19 x 4.4 mm) | .054 lbs<br>(0.87 oz) | Black, overmolded<br>Polyamide thermoplastic | -40°C to +85°C operating | IP67 (except for the<br>connector which must be<br>routed inside of the vehicle) |

## Ground Plane Independent, Low-Profile Dual-Band Wi-Fi Antenna



PCTEL's WLP2458NGP is a ground plane independent dual-band antenna for 802.11a, b, g, e Wi-Fi applications. It has a rugged, low-profile housing suitable for both indoor and outdoor installations. The antenna features IP67 ingress rating and it is terminated with a Female TNC connector. Mating cable assemblies sold separately.

### Features

- Ground plane independent design for maximum placement flexibility
- Dual-band performance covering 802.11 a, b, g, e standards
- UV-stable housing rated for indoor and outdoor applications
- 3/4-inch through hole or bracket mount
- Optimized with a 1.5 m PFP-195 cable assembly with mating TNC Male termination (sold separately). Other connector and cable length options available.



WLP2458NGP

### STANDARD CONFIGURATION

| Model      | Connector                                            | Mount                                          |
|------------|------------------------------------------------------|------------------------------------------------|
| WLP2458NGP | TNC jack (purchase mating cable assembly separately) | ¾-inch permanent through hole or bracket mount |

### ELECTRICAL SPECIFICATIONS

| Frequency Range          | Gain                                                                        | VSWR      | Maximum Power | Nominal Impedance | Polarization     | Azimuth Half Power Beamwidth | Elevation Half Power Beamwidth                                |
|--------------------------|-----------------------------------------------------------------------------|-----------|---------------|-------------------|------------------|------------------------------|---------------------------------------------------------------|
| 2.4-2.5 GHz /4.9-5.9 GHz | 3 dBi<br>(without a ground plane)<br>3.5 dBi<br>(with a 60 cm ground plane) | < 2.0:1** | 10 watts      | 50 ohms           | Vertical, linear | 360°                         | without a ground plane: 70°<br>with a 60 cm ground plane: 50° |

### MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

| Dimensions                    | Weight          | Housing Material    | Temperature Range |
|-------------------------------|-----------------|---------------------|-------------------|
| 2.36 x 1.73 in (6.0 x 4.4 cm) | 0.11 lbs (50 g) | White UV-Stable ASA | -40°C to +85°C    |

\* Tested with a 1.5-meter PFP-195 cable. \*\* When installed according to the manufacturer's installation instructions.

## Low-Profile Wideband Rail Antennas



The PCT-RSA omnidirectional antennas are designed to survive rugged applications and can be roof mounted on locomotive, crew car, or other railroad vehicles exposed to severe vibration and other tough environmental conditions.

### Features

- Versatile - may be mounted on locomotive, crew car, or other rugged vehicles
- Rugged - hard coat anodized fully welded aluminum construction
- Low-profile - only approximately 4.4 inches tall
- Field Tunable - optimizes performance in various mounting conditions
- Two-hole Stud Mounting - easy install design



PCT-RSA-220

### STANDARD CONFIGURATION

| Model         | Cable           | Connector     | Mount                                       |
|---------------|-----------------|---------------|---------------------------------------------|
| PCT-RSA-160-F | Sold Separately | Type N Female | Through-hole stud mounting for 1-inch holes |
| PCT-RSA-220   | Sold Separately | Type N Female | Through-hole stud mounting for 1-inch holes |

### ELECTRICAL SPECIFICATIONS - RF ANTENNA

| Model         | Frequency Range | Gain* | VSWR    | Average Power | Nominal Impedance | Polarization     |
|---------------|-----------------|-------|---------|---------------|-------------------|------------------|
| PCT-RSA-160-F | 158-162 MHz     | 2 dBi | < 1.5:1 | 100 watts     | 50 ohms           | Vertical, linear |
| PCT-RSA-220   | 217-223 MHz     | 2 dBi | < 1.5:1 | 100 watts     | 50 ohms           | Vertical, linear |

### MECHANICAL & ENVIRONMENTAL SPECIFICATIONS (ALL MODELS)

| Dimensions                            | Temperature Range | Antenna Material                   |
|---------------------------------------|-------------------|------------------------------------|
| 6.81 L x 4.32 H in (17.2 x 10.9 cm)** | -40°C to +85°C    | Aluminum, black hard coat anodized |

\* Gain is ground plane dependent; more gain can be achieved with larger ground plane. \*\* Specified height is height above mounting surface.

## Rugged Railroad Antennas



The ASP16 and ASP22 railroad antennas are designed to AAR requirements and can be roof mounted on locomotive, crew car, or other railroad vehicles exposed to severe vibration and other tough environmental conditions. Their concentric cylinder design measures only 11.4" (ASP16) or 8.9" (ASP22) tall for reduced visibility. The antennas require a ground plane and feature a large mounting foot with an SO-239 connector. Cable is sold separately.

### Features

- Versatile - may be mounted on locomotive, crew car, or other rugged vehicles
- High Technology - manufactured to AAR requirements under ITT patents
- Low-profile - concentric cylinder design only 11.4" or 8.9" high
- Easy Installation - large mounting foot with SO-239 connector



ASP16

### STANDARD CONFIGURATION

| Model | Cable           | Connector                  | Mount              |
|-------|-----------------|----------------------------|--------------------|
| ASP16 | Sold Separately | SO-239 (mates with PL-259) | Direct Panel Mount |
| ASP22 | Sold Separately | SO-239 (mates with PL-259) | Direct Panel Mount |

### ELECTRICAL SPECIFICATIONS - RF ANTENNA

| Model | Frequency Range | VSWR    | Average Power | Nominal Impedance | Polarization     |
|-------|-----------------|---------|---------------|-------------------|------------------|
| ASP16 | 158-162 MHz     | < 1.5:1 | 100 watts     | 50 ohms           | Vertical, linear |
| ASP22 | 217-222 MHz     | < 1.5:1 | 100 watts     | 50 ohms           | Vertical, linear |

### MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

| Model | Dimensions                         | Temperature Range | Housing Material                                    |
|-------|------------------------------------|-------------------|-----------------------------------------------------|
| ASP16 | 2.8 OD x 11.3 H in (7.2 x 28.8 cm) | -40°C to +85°C    | STAINLESS STEEL TUBE, T304-(S/W)-1/2 HD, MIL-T-5695 |
| ASP22 | 2.8 OD x 11.3 H in (7.2 x 28.8 cm) | -40°C to +85°C    | STAINLESS STEEL TUBE, T304-(S/W)-1/2 HD, MIL-T-5695 |



## Wide Spectrum Multi-Band Antenna

PCTEL's PCTWSLMR wide spectrum multi-band antenna supports multi-band radio technology to provide interoperability among emergency management and response personnel, regardless of the frequency band used. It provides outstanding coverage of VHF and UHF bands, including 700 MHz public safety, 800 MHz and 900 MHz frequencies in a ready-to-install, no tune design. Its multi-band elements are housed in a rugged, impact-resistant housing for maximum durability and its base is designed to interface with standard NMO mobile mounts to facilitate existing installation upgrades on public safety vehicles.

### Features

- No tune, multi-band coverage of full spectrum VHF, TETRA/UHF and 700/800/900 MHz frequencies
- Rugged construction for long lasting, reliable emergency response support
- NMO compatible interface for easy installation or upgrade
- Stainless steel spring for maximum impact shock absorption
- Excellent VSWR performance across frequencies



PCTWSLMR

PCTMAG-HD Mount  
(sold separately)

### STANDARD CONFIGURATION

| Model    | Recommended Mount (Sold Separately)                                                                                                                                                                                                          |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PCTWSLMR | Mates with 1-1/8"-18 threaded mounts, including NMO 3/4" hole mounts.<br>For temporary installations, PCTMAG-HD-NT extra strength magnetic mount is required (sold separately).<br><b>NOTE: DO NOT USE WITH MAX-MATICS GPS PLUS ANTENNAS</b> |

### ELECTRICAL SPECIFICATIONS

| Frequency Range                         | Gain   | VSWR              | Polarization     | Average Power | Nominal Impedance |
|-----------------------------------------|--------|-------------------|------------------|---------------|-------------------|
| 136-174 MHz / 380-520 MHz / 698-960 MHz | Unity* | < 2.0:1 typical** | Vertical, linear | 160 watts     | 50 ohms           |

### MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

| Dimensions                                         | Weight             | Radiator                     | Construction Materials                                                                                                    | Ingress Protection | Temperature Range |
|----------------------------------------------------|--------------------|------------------------------|---------------------------------------------------------------------------------------------------------------------------|--------------------|-------------------|
| 2 OD x 22 H in including whip<br>(5.08 x 55.88 cm) | 1.46 lbs (0.66 kg) | Black e-coated<br>17-7PH SST | Base Coil: Black ABS plastic with zinc<br>diecast internal bushing<br>Housing: Black aluminum<br>Spring: Black chrome SST | IP56               | -40°C to +85°C    |

\* Measured on a 4-foot diameter ground plane. Gain value is measured at the base of the antenna (no cable/connector loss included).

\*\* Measured on a standard NMO mount with 17 feet of RG-58A/U cable. Maximum VSWR 2.5:1.

## VHF and UHF Wideband Antennas - No Tune



These PCTEL antennas address equipment inter-operability challenges by providing superior bandwidth coverage without sacrificing antenna performance. Their no tune wideband design eliminates the need to install multiple antennas to cover various VHF or UHF frequency bands, thus reducing installation costs and complexity and improving overall coverage of the desired frequencies.

### Features

- Wideband, no tune design for seamless operation and installation ease across multiple frequency bands
- Rugged stainless steel spring and wideband tube assembly for maximum durability and shock absorption
- Thick-wall housing, double-sealed for maximum weatherproofing
- Mates with all 1-1/8" -18 thread mounts, including 3/4" mounts



MWU4002S



MWV1365S

### STANDARD CONFIGURATION

| Model        | Recommended Mounts (Sold Separately)                       |
|--------------|------------------------------------------------------------|
| (B)MWV1365S* | Mates with 1-1/8" -18 thread mounts, including 3/4" mounts |
| (B)MWU4002S* | Mates with 1-1/8" -18 thread mounts, including 3/4" mounts |
| MWU4505S     | Mates with 1-1/8" -18 thread mounts, including 3/4" mounts |
| MWU4063S     | Mates with 1-1/8" -18 thread mounts, including 3/4" mounts |
| MWU5002S     | Mates with 1-1/8" -18 thread mounts, including 3/4" mounts |

### ELECTRICAL SPECIFICATIONS

| Model        | Frequency Range | Gain                                                     | VSWR    | Maximum Power | Nominal Impedance |
|--------------|-----------------|----------------------------------------------------------|---------|---------------|-------------------|
| (B)MWV1365S* | 136-174 MHz     | Unity                                                    | < 2.0:1 | 160 watts     | 50 ohms           |
| (B)MWU4002S* | 380-520 MHz     | 2.0 dB with a ground plane. Unity without a ground plane | < 2.0:1 | 200 watts     | 50 ohms           |
| MWU4505S     | 440-480 MHz     | 4.5 dB                                                   | < 2.0:1 | 200 watts     | 50 ohms           |
| MWU4063S     | 406-470 MHz     | 3.0 dB                                                   | < 2.0:1 | 200 watts     | 50 ohms           |
| MWU5002S     | 567-657 MHz     | 2.0 dB                                                   | < 2.0:1 | 200 watts     | 50 ohms           |

### MECHANICAL SPECIFICATIONS

| Model        | Approximate Whip Length at Lowest Frequency | Temperature Range | Radiator    | Housing Material        | Spring Material |
|--------------|---------------------------------------------|-------------------|-------------|-------------------------|-----------------|
| (B)MWV1365S* | 20"                                         | -40°C to +85°C    | 17-7 PH SST | Black UV-Stable Polymer | SST             |
| (B)MWU4002S* | 12"                                         | -40°C to +85°C    | 17-7 PH SST | Black UV-Stable Polymer | SST             |
| MWU4505S     | 32"                                         | -40°C to +85°C    | 17-7 PH SST | Black UV-Stable Polymer | SST             |
| MWU4063S     | 12"                                         | -40°C to +85°C    | 17-7 PH SST | Black UV-Stable Polymer | SST             |
| MWU5002S     | Less than 9"                                | -40°C to +85°C    | 17-7 PH SST | Black UV-Stable Polymer | SST             |

\* This model can be ordered in all black finish. To indicate all black option, add prefix "B" to part number. Example, BMWV1365S.

## VHF and UHF Wideband Antennas - Field Tunable

PCTEL's field tunable wideband antennas address equipment interoperability challenges by providing superior bandwidth coverage without sacrificing antenna performance. All models are built to withstand high vibration conditions.

### Features

- Outstanding bandwidth performance
- Rugged compact design ideal for high vibration conditions
- Thick-wall housing, double-sealed for maximum weatherproofing
- Mate with all 1-1/8" -18 thread mounts, including 3/4" mounts
- Select models feature a removable whip design for fine tuning or replacement
- Stainless steel spring option offered with select models



MWV1322S

### STANDARD CONFIGURATION

| Model        | Optional Spring Available* | Recommended Mounts (Sold Separately, unless otherwise listed)                     |
|--------------|----------------------------|-----------------------------------------------------------------------------------|
| MWV1322(S)   | Yes                        | Mates with 1-1/8-inch -18 thread mobile mounts, including 3/4-inch hole mounts    |
| MWV1322HD(S) | Yes                        | Mates with 1-1/8-inch -18 thread mobile mounts, including 3/4-inch hole mounts    |
| MWB1320      | Spring only option         | Mates with 1-1/8-inch -18 thread mobile mounts, including 3/4-inch hole mounts    |
| ASPR7495     | No                         | Mates with 1-1/8-inch -18 thread mobile mounts, including 3/4-inch hole mounts    |
| ASPR795      | No                         | Mates with 1-1/8-inch -18 thread mobile mounts, including 3/4-inch hole mounts    |
| ASPC201L     | No                         | 3/8-inch hole snap-in mounts, includes 17 ft RG-58/U cable and UHF male connector |

### ELECTRICAL SPECIFICATIONS

| Model        | Frequency Range (Field tunable) | Bandwidth                                          | Gain                                               | VSWR    | Maximum Power | Nominal Impedance | Antenna Type            |
|--------------|---------------------------------|----------------------------------------------------|----------------------------------------------------|---------|---------------|-------------------|-------------------------|
| MWV1322(S)   | 132-174 MHz                     | 2.4 dB with ground plane<br>Unity w/o ground plane | 2.4 dB with ground plane<br>Unity w/o ground plane | < 2.0:1 | 150 watts     | 50 ohms           | Base loaded<br>1/2 wave |
| MWV1322HD(S) | 132-174 MHz                     | 2.4 dB with ground plane<br>Unity w/o ground plane | 2.4 dB with ground plane<br>Unity w/o ground plane | < 2.0:1 | 150 watts     | 50 ohms           | Base loaded<br>1/2 wave |
| MWB1320      | 132-512 MHz                     | 24 MHz                                             | Unity                                              | < 2.0:1 | 150 watts     | 50 ohms           | 1/4 Wave                |
| ASPR7495     | 150-512 MHz                     | 24 MHz (406-512 MHz)                               | Unity                                              | < 2.0:1 | 150 watts     | 50 ohms           | 1/4 Wave                |
| ASPR795      | 108-512 MHz                     | 100 MHz (406-512 MHz)                              | Unity                                              | < 1.5:1 | 150 watts     | 50 ohms           | 1/4 Wave                |
| ASPC201L     | 108-512 MHz                     | 100 MHz (406-512 MHz)                              | Unity                                              | < 1.5:1 | 100 watts     | 50 ohms           | 1/4 Wave                |

### MECHANICAL SPECIFICATIONS

| Model        | Approximate Whip Length at Lowest Frequency | Temperature Range | Radiator    | Housing Material        | Spring Material |
|--------------|---------------------------------------------|-------------------|-------------|-------------------------|-----------------|
| MWV1322(S)   | 48"                                         | -40°C to +85°C    | 17-7 PH SST | Black UV-Stable Polymer | SST             |
| MWV1322HD(S) | 48"                                         | -40°C to +85°C    | 17-7 PH SST | Black UV-Stable Polymer | SST             |
| MWB1320      | 22"                                         | -40°C to +85°C    | 17-7 PH SST | Black UV-Stable Polymer | SST             |
| ASPR7495     | 16-3/8"                                     | -40°C to +85°C    | 17-7 PH SST | Black UV-Stable Polymer | SST             |
| ASPR795      | 26"                                         | -40°C to +85°C    | 17-7 PH SST | Black UV-Stable Polymer | SST             |
| ASPC201L     | 26"                                         | -40°C to +85°C    | 17-7 PH SST | Black UV-Stable Polymer | SST             |

\* To select spring option, add suffix "S" to part number. Example: MWV1322S

## Base Loaded Chrome Coil Antennas, No Ground Plane

Designed for installations that lack a suitable ground plane, these PCTEL antennas feature a tapered loading coil jacket with chrome plated fittings and an optional heavy-duty stainless steel spring. The base loaded matching network supports the collinear or trilinear rod sections above without the need of a ground plane.

### Features

- No ground plane required
- Rugged construction; optional heavy-duty shock spring
- Sleek, sturdy, sealed phasing coil design
- Mates with all 1-1/8"-18 thread mounts, including 3/4" mounts



MUF4505NGP

### STANDARD CONFIGURATION

| Model*        | Optional Spring Available* | Recommended Mounts (Sold Separately)                       | Rod/Coil Type      |
|---------------|----------------------------|------------------------------------------------------------|--------------------|
| MUF4505NGP(S) | Yes                        | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts. | Collinear / Closed |
| MUF8003NGP(S) | Yes                        | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts. | Collinear / Closed |
| MUF9103NGP    | No                         | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts. | Collinear / Open   |
| MUF9035NGPS   | Spring only option         | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts. | Trilinear / Closed |

### ELECTRICAL SPECIFICATIONS

| Model*        | Frequency Range | Factory Tuned Frequency | Gain      | VSWR    | Maximum Power | Nominal Impedance | Antenna Type                         |
|---------------|-----------------|-------------------------|-----------|---------|---------------|-------------------|--------------------------------------|
| MUF4505NGP(S) | 450-470 MHz     | Field Tunable           | 5 dB/3 dB | < 1.5:1 | 200 watts     | 50 ohms           | Base loaded 5/8 wave over a 1/2 wave |
| MUF8003NGP(S) | 806-866 MHz     | 815 MHz                 | 3 dBi     | < 1.5:1 | 200 watts     | 50 ohms           | Base loaded 1/2 wave                 |
| MUF9103NGP    | 896-940 MHz     | 898 MHz                 | 3 dBi     | < 1.5:1 | 200 watts     | 50 ohms           | Base loaded 1/2 wave                 |
| MUF9035NGPS   | 896-940 MHz     | 898 MHz                 | 3 dBi     | < 1.5:1 | 200 watts     | 50 ohms           | Base loaded 1/2 wave                 |

### MECHANICAL SPECIFICATIONS

| Model*        | Approximate Whip Length at Lowest Frequency | Temperature Range | Radiator    | Housing Material        | Spring Material |
|---------------|---------------------------------------------|-------------------|-------------|-------------------------|-----------------|
| MUF4505NGP(S) | 33"                                         | -40°C to +85°C    | 17-7 PH SST | Black UV-Stable Polymer | SST             |
| MUF8003NGP(S) | 17.25"                                      | -40°C to +85°C    | 17-7 PH SST | Black UV-Stable Polymer | SST             |
| MUF9103NGP    | 17.5"                                       | -40°C to +85°C    | 17-7 PH SST | Black UV-Stable Polymer | N/A             |
| MUF9035NGPS   | 27.5"                                       | -40°C to +85°C    | 17-7 PH SST | Black UV-Stable Polymer | SST             |

\* To select spring option, add suffix "S" to part number. Example: MUF4505NGPS

## VHF Base Loaded Chrome Coil Antenna, No Ground Plane



Designed for installations that lack a suitable ground plane, the MHB5802(S) antenna features a tapered loading coil jacket with chrome plated fittings and an optional heavy-duty stainless steel spring. The base loaded matching network supports the collinear or trilinear rod sections above without the need of a ground plane.

### Features

- No ground plane required
- Rugged construction; optional heavy-duty shock spring
- Sleek, sturdy, sealed phasing coil design
- Mates with all 1-1/8"-18 thread mounts, including 3/4" mounts
- Field tunable within the specified frequency range



MHB5802S\*

### STANDARD CONFIGURATION

| Model*   | Optional Spring Available* | Recommended Mounts (Sold Separately)                      |
|----------|----------------------------|-----------------------------------------------------------|
| MHB5802S | Yes                        | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts |

### ELECTRICAL SPECIFICATIONS

| Frequency Range | Gain                                                     | VSWR                 |
|-----------------|----------------------------------------------------------|----------------------|
| 144-174 MHz     | Unity with no ground plane<br>2.4 dB with a ground plane | < 1.5:1 at resonance |

### ELECTRICAL SPECIFICATIONS, continued

| Maximum Power | Nominal Impedance | Antenna Type         |
|---------------|-------------------|----------------------|
| 200 watts     | 50 ohms           | Base loaded 1/2 Wave |

### MECHANICAL SPECIFICATIONS

| Approximate Whip Length at Lowest Frequency | Temperature Range | Radiator   | Housing Material        | Spring Material |
|---------------------------------------------|-------------------|------------|-------------------------|-----------------|
| 52"                                         | -40°C to +85°C    | 17-7PH SST | Black UV-Stable Polymer | SST             |

\* To select spring option, add suffix "S" to part number. Example: MHB5802S

## Heavy-Duty Low-Profile Base Gain Antennas

These PCTEL antennas feature a heavy-duty low-profile base with tapered loading coil jacket, chrome plated brass fittings and an optional heavy-duty stainless steel spring. Available with either an open coil rod or our "quiet" closed coil rod design.

### Features

- Low-profile, double-sealed housing for maximum weatherproofing
- Plated fittings for superior performance and durability in the toughest environments
- Mates with all 1-1/8"-18 thread mounts, including 3/4" mounts

### STANDARD CONFIGURATION

| Model      | Optional Spring Available* | Recommended Mount (Sold Separately)                       | Rod/Coil Type      |
|------------|----------------------------|-----------------------------------------------------------|--------------------|
| MUF3505S   | Spring only option         | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts | Collinear / Closed |
| MUF4065    | No                         | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts | Collinear / Closed |
| MUF4305    | No                         | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts | Collinear / Closed |
| MUF4505(S) | Yes                        | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts | Collinear / Closed |
| MUF4905    | Yes                        | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts | Collinear / Closed |
| MUF8105    | No                         | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts | Trilinear / Open   |
| MUF8005    | No                         | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts | Trilinear / Closed |
| MUF8103    | No                         | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts | Collinear / Open   |
| MUF8325    | Yes                        | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts | Trilinear / Closed |
| MUF9035    | No                         | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts | Trilinear / Closed |



MUF4505

### ELECTRICAL SPECIFICATIONS

| Model      | Frequency Range | Gain | VSWR    | Maximum Power | Nominal Impedance | Antenna Type             |
|------------|-----------------|------|---------|---------------|-------------------|--------------------------|
| MUF3505S   | 350-400 MHz     | 5 dB | < 1.5:1 | 200 watts     | 50 ohms           | 5/8 wave over a 1/4 wave |
| MUF4065    | 406-430 MHz     | 5 dB | < 1.5:1 | 200 watts     | 50 ohms           | 5/8 wave over a 1/4 wave |
| MUF4305    | 430-450 MHz     | 5 dB | < 1.5:1 | 200 watts     | 50 ohms           | 5/8 wave over a 1/4 wave |
| MUF4505(S) | 450-470 MHz     | 5 dB | < 1.5:1 | 200 watts     | 50 ohms           | 5/8 wave over a 1/4 wave |
| MUF4905    | 490-512 MHz     | 5 dB | < 1.5:1 | 200 watts     | 50 ohms           | 5/8 wave over a 1/4 wave |
| MUF8105    | 806-866 MHz     | 5 dB | < 1.5:1 | 200 watts     | 50 ohms           | 5/8 wave over a 1/4 wave |
| MUF8005    | 806-866 MHz     | 5 dB | < 1.5:1 | 200 watts     | 50 ohms           | 5/8 wave over a 1/4 wave |
| MUF8103    | 806-896 MHz     | 3 dB | < 1.5:1 | 200 watts     | 50 ohms           | 5/8 wave over a 1/4 wave |
| MUF8325    | 825-896 MHz     | 5 dB | < 1.5:1 | 200 watts     | 50 ohms           | 5/8 wave over a 1/4 wave |
| MUF9035    | 896-940 MHz     | 5 dB | < 1.5:1 | 200 watts     | 50 ohms           | 5/8 wave over a 1/4 wave |

### MECHANICAL SPECIFICATIONS

| Model      | Approximate Whip Length at Lowest Frequency | Temperature Range | Radiator    | Spring Material | Housing Material        |
|------------|---------------------------------------------|-------------------|-------------|-----------------|-------------------------|
| MUF3505S   | 32"                                         | -40°C to +85°C    | 17-7 PH SST | SST             | Black UV-Stable Polymer |
| MUF4065    | 32"                                         | -40°C to +85°C    | 17-7 PH SST | N/A             | Black UV-Stable Polymer |
| MUF4305    | 32"                                         | -40°C to +85°C    | 17-7 PH SST | N/A             | Black UV-Stable Polymer |
| MUF4505(S) | 32"                                         | -40°C to +85°C    | 17-7 PH SST | SST             | Black UV-Stable Polymer |
| MUF4905    | 32"                                         | -40°C to +85°C    | 17-7 PH SST | SST             | Black UV-Stable Polymer |
| MUF8105    | 25"                                         | -40°C to +85°C    | 17-7 PH SST | N/A             | Black UV-Stable Polymer |
| MUF8005    | 25"                                         | -40°C to +85°C    | 17-7 PH SST | N/A             | Black UV-Stable Polymer |
| MUF8103    | 15.5"                                       | -40°C to +85°C    | 17-7 PH SST | N/A             | Black UV-Stable Polymer |
| MUF8325    | 25"                                         | -40°C to +85°C    | 17-7 PH SST | SST             | Black UV-Stable Polymer |
| MUF9035    | 25"                                         | -40°C to +85°C    | 17-7 PH SST | SST             | Black UV-Stable Polymer |

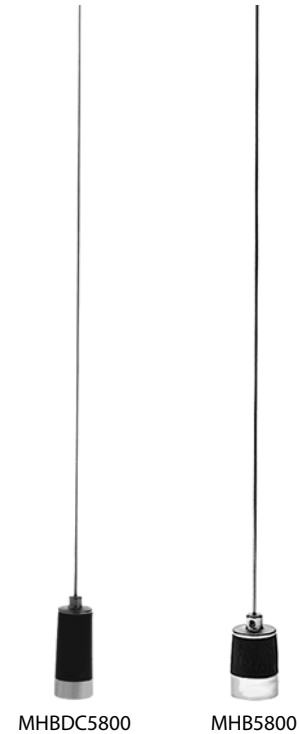
\* To select spring option, add suffix "S" to part number. Example: MUF4505S

## Base Loaded Field Tunable 3dB Gain Antennas

These 5/8 Wave antennas utilize a chrome coil design with the enhancement of a heavy-duty tapered rod for maximum durability in tough environments.

### Features

- The matching coil is supported by a low loss coil for superior performance in heavy-duty applications
- The tapered coil housing design enhances appearance and prevents moisture from entering the load
- Mates with all 1-1/8" -18 thread mounts, including 3/4" mounts



### STANDARD CONFIGURATION

| Model*         | Optional Spring Available* | Recommended Mounts (Sold Separately)                       |
|----------------|----------------------------|------------------------------------------------------------|
| MHB5800132     | No                         | Mates with 1-1/8" -18 thread mounts, including 3/4" mounts |
| MHBDC5800(S)** | Yes                        | Mates with 1-1/8" -18 thread mounts, including 3/4" mounts |
| MHB5800(S)     | Yes                        | Mates with 1-1/8" -18 thread mounts, including 3/4" mounts |
| MUF4503(S)     | Yes                        | Mates with 1-1/8" -18 thread mounts, including 3/4" mounts |

### ELECTRICAL SPECIFICATIONS

| Model*         | Frequency Range | Gain | VSWR    | Maximum Power | Nominal Impedance | Antenna Type         |
|----------------|-----------------|------|---------|---------------|-------------------|----------------------|
| MHB5800132     | 132-174 MHz     | 3 dB | < 1.5:1 | 200 watts     | 50 ohms           | Base loaded 5/8 Wave |
| MHBDC5800(S)** | 144-174 MHz     | 3 dB | < 1.5:1 | 200 watts     | 50 ohms           | Base loaded 5/8 Wave |
| MHB5800(S)     | 144-174 MHz     | 3 dB | < 1.5:1 | 200 watts     | 50 ohms           | Base loaded 5/8 Wave |
| MUF4503(S)     | 450-470 MHz     | 3 dB | < 1.5:1 | 200 watts     | 50 ohms           | Base loaded 5/8 Wave |

### MECHANICAL SPECIFICATIONS

| Model*         | Approximate Whip Length at Lowest Frequency | Temperature Range | Radiator   | Spring Material | Housing Material        |
|----------------|---------------------------------------------|-------------------|------------|-----------------|-------------------------|
| MHB5800132     | 58"                                         | -40°C to +85°C    | 17-7 PH SS | N/A             | Black UV-Stable Polymer |
| MHBDC5800(S)** | 52"                                         | -40°C to +85°C    | 17-7 PH SS | SST             | Black UV-Stable Polymer |
| MHB5800(S)     | 52"                                         | -40°C to +85°C    | 17-7 PH SS | SST             | Black UV-Stable Polymer |
| MUF4503(S)     | 16"                                         | -40°C to +85°C    | 17-7 PH SS | SST             | Black UV-Stable Polymer |

\* To select spring option, add suffix "S" to part number. Example: MUF4503S

## Lowband Quarter Wave Antennas



PCTEL's MLB lowband antennas are a popular choice for State Patrol, Land Management and serious CB applications. They provide superior performance for a variety of lowband applications.

### Features

- The matching coil is supported by a low-loss coil form to withstand the heaviest shocks
- Durable, attractive housings designed to deter moisture ingress for long lasting, reliable operation
- Mates with all 1-1/8"-18 thread mounts, including 3/4" mounts
- Field tunable within specified frequency range

### STANDARD CONFIGURATION

| Model*         | Optional Spring Available* | Recommended Mounts (Sold Separately)                      |
|----------------|----------------------------|-----------------------------------------------------------|
| MLB2700        | No                         | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts |
| MLB3000        | No                         | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts |
| MLB3400        | No                         | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts |
| MLBDC3700(S)** | Yes                        | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts |
| MLB4000        | No                         | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts |
| MLBDC4000(S)** | Yes                        | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts |
| MLBDC4700(S)** | Yes                        | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts |
| MLB4700(S)     | Yes                        | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts |



### ELECTRICAL SPECIFICATIONS

| Model*         | Frequency Range | Gain  | VSWR    | Average Power | Nominal Impedance | Antenna Type                |
|----------------|-----------------|-------|---------|---------------|-------------------|-----------------------------|
| MLB2700        | 27-31 MHz       | Unity | < 1.5:1 | 200 watts     | 50 ohm            | Base Loaded 1/4 wave        |
| MLB3000        | 27-31 MHz       | Unity | < 1.5:1 | 200 watts     | 50 ohm            | Base Loaded 1/4 wave        |
| MLB3400        | 34-40 MHz       | Unity | < 1.5:1 | 200 watts     | 50 ohm            | Base Loaded 1/4 wave        |
| MLBDC3700(S)** | 37-40 MHz       | Unity | < 1.5:1 | 500 watts     | 50 ohm            | Base Loaded Tapped 1/4 Wave |
| MLB4000        | 40-47 MHz       | Unity | < 1.5:1 | 200 watts     | 50 ohm            | Base Loaded 1/4 wave        |
| MLBDC4000(S)** | 40-47 MHz       | Unity | < 1.5:1 | 500 watts     | 50 ohm            | Base Loaded Tapped 1/4 Wave |
| MLBDC4700(S)** | 47-50 MHz       | Unity | < 1.5:1 | 500 watts     | 50 ohm            | Base Loaded Tapped 1/4 Wave |
| MLB4700(S)     | 47-54 MHz       | Unity | < 1.5:1 | 200 watts     | 50 ohm            | Base Loaded 1/4 wave        |

### MECHANICAL SPECIFICATIONS

| Model*         | Approximate Whip Length at Lowest Frequency | Temperature Range | Radiator   | Spring Material | Housing Material        |
|----------------|---------------------------------------------|-------------------|------------|-----------------|-------------------------|
| MLB2700        | 52"                                         | -40°C to +85°C    | 17-7 PH SS | N/A             | Black UV-Stable Polymer |
| MLB3000        | 52"                                         | -40°C to +85°C    | 17-7 PH SS | N/A             | Black UV-Stable Polymer |
| MLB3400        | 52"                                         | -40°C to +85°C    | 17-7 PH SS | N/A             | Black UV-Stable Polymer |
| MLBDC3700(S)** | 52"                                         | -40°C to +85°C    | 17-7 PH SS | SST             | Black UV-Stable Polymer |
| MLB4000        | 52"                                         | -40°C to +85°C    | 17-7 PH SS | N/A             | Black UV-Stable Polymer |
| MLBDC4000(S)** | 52"                                         | -40°C to +85°C    | 17-7 PH SS | SST             | Black UV-Stable Polymer |
| MLBDC4700(S)** | 52"                                         | -40°C to +85°C    | 17-7 PH SS | SST             | Black UV-Stable Polymer |
| MLB4700(S)     | 52"                                         | -40°C to +85°C    | 17-7 PH SS | SST             | Black UV-Stable Polymer |

\* To select spring option, add suffix "S" to part number. Example: MLB4700S \*\* This model is DC grounded

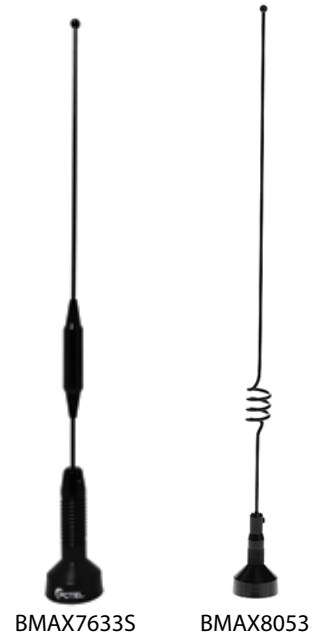
## BMAX Molded Base Antennas



These PCTEL antennas feature a rugged molded polymer base, plated springloaded contact pin and .100" diameter stainless steel whip for long-lasting, trouble-free operation. Select models are available with open or closed coil rod, and can be ordered in all black finish. This series offers models for many types of wireless applications, including Wi-Fi and WiMAX mobility, VHF and UHF land mobile radio, 700 Public Safety, 800 MHz and 900 MHz digital radio and AMPS/ PCS voice/data support.

### Features

- Molded polymer base provides ruggedness and durability in harsh mobile environments.
- Wideband performance (Wi-Fi and WiMAX models) provide coverage of 2.2 GHz to 2.9 GHz frequencies without tuning. WiMAX model covers 2.3-3.8 GHz frequencies.
- 3 dB or 5 dB models available for most frequency ranges
- Antenna is ready to install; no rod cutting is required (unless otherwise noted)
- Designed to mate with all 1-1/8"-18 thread mounts, including 3/4" mounts
- Spring-loaded gold plated contact pin



### STANDARD CONFIGURATION

| Model**           | Optional Spring Available* | Mount                                                                                                        | Rod/Coil Type      |
|-------------------|----------------------------|--------------------------------------------------------------------------------------------------------------|--------------------|
| (B)MAXMFT(S)      | Yes                        | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts                                                    | Straight           |
| (B)MAXSCAN1000(S) | Yes                        | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts                                                    | Collinear / Closed |
| (B)MAX7603S       | Spring only                | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts                                                    | Collinear / Open   |
| BMAX7633S         | Spring only                | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts                                                    | Collinear / Closed |
| (B)MAX7635S       | Spring only                | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts                                                    | Trilinear / Closed |
| BMAX8053(S)       | Yes                        | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts                                                    | Collinear / Open   |
| BMAX8155S         | Spring only                | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts                                                    | Collinear / Closed |
| MAX8375S          | Spring only                | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts                                                    | Trilinear / Closed |
| BMAX824/1850      | No                         | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts                                                    | Collinear / Open   |
| BMAX9155S         | Spring only                | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts                                                    | Collinear / Closed |
| MAX9053           | No                         | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts                                                    | Collinear / Open   |
| BMAXC24503        | No                         | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts; high frequency mounts recommended with this model | Collinear / Closed |
| BMAXC24505        | No                         | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts high frequency mounts recommended with this model  | Collinear / Closed |
| BMAXC233805       | No                         | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts high frequency mounts recommended with this model  | Collinear / Closed |

\* To select spring option, add suffix "S" to part number. Example: BMAX8053S

\*\* (B) indicates black option available. To select, add prefix "B" to the part number. Example: BMAXMFT



## BMAX Molded Base Antennas

### ELECTRICAL SPECIFICATIONS

| Model*       | Frequency Range                         | Gain            | VSWR    | Average Power | Nominal Impedance | Factory Tuned Frequency | Antenna Type                  |
|--------------|-----------------------------------------|-----------------|---------|---------------|-------------------|-------------------------|-------------------------------|
| (B)MAXMFT(S) | 118-940 MHz                             | Unity           | < 1.5:1 | 200 watts     | 50 ohms           | Field Tunable           | 1/4 wave                      |
| BMAXSCAN1000 | 150-174 MHz / 450-470 MHz / 800-840 MHz | Unity           | < 1.5:1 | 150 watts     | 50 ohms           | 160 MHz                 | 1/4 wave or Collinear array   |
| (B)MAX7603S  | 760-870 MHz                             | 3 dB            | < 1.5:1 | 100 watts     | 50 ohms           | 160/460 MHz / NA        | Wideband collinear            |
| BMAX7633S    | 760-870 MHz                             | 3 dB            | < 1.5:1 | 100 watts     | 50 ohms           | 815 MHz                 | Wideband collinear            |
| (B)MAX7635S  | 760-870 MHz                             | 5 dB            | < 1.9:1 | 100 watts     | 50 ohms           | 815 MHz                 | Dual 1/2 wave over a 1/4 wave |
| BMAX8053     | 806-866 MHz                             | 3 dB            | < 1.5:1 | 100 watts     | 50 ohms           | 835 MHz                 | 5/8 wave over a 1/4 wave      |
| BMAX8155S    | 806-896 MHz                             | 4.5 dB          | < 1.5:1 | 100 watts     | 50 ohms           | 835 MHz                 | Collinear array               |
| MAX8375S     | 824-896 MHz                             | 5 dB            | < 1.5:1 | 100 watts     | 50 ohms           | 835 MHz                 | 5/8 wave over a 1/4 wave      |
| BMAX824/1850 | 824-896 MHz / 1850-1990 MHz             | 2.2 dBi / 4 dBi | < 1.5:1 | 100 watts     | 50 ohms           | Broadband***            | Dual-Band Collinear           |
| BMAX9155S    | 890-945 MHz                             | 4.0 dB          | < 1.5:1 | 100 watts     | 50 ohms           | Broadband***            | Collinear array               |
| MAX9053      | 896-940 MHz                             | 3 dB            | < 1.5:1 | 100 watts     | 50 ohms           | 896 MHz                 | 5/8 wave over a 1/4 wave      |
| BMAXC24503   | 2.2-2.9 GHz                             | 3 dBi           | < 1.5:1 | 100 watts     | 50 ohms           | Broadband***            | ISM mobile and WLAN           |
| BMAXC24505   | 2.2-2.9 GHz                             | 5 dBi           | < 1.5:1 | 100 watts     | 50 ohms           | Broadband***            | ISM mobile and WLAN           |
| BMAXC233805  | 2.3-3.8 GHz                             | 5 dBi           | < 1.5:1 | 100 watts     | 50 ohms           | Broadband***            | WiMAX mobile                  |

### MECHANICAL SPECIFICATIONS

| Model*       | Approximate Whip Length at Lowest Frequency | Temperature Range | Radiator   | Spring Material | Housing Material    |
|--------------|---------------------------------------------|-------------------|------------|-----------------|---------------------|
| (B)MAXMFT(S) | 26"                                         | -40°C to +85°C    | 17-7PH SST | SST             | Black UV-Stable ABS |
| BMAXSCAN1000 | 21"                                         | -40°C to +85°C    | 17-7PH SST | NA              | Black UV-Stable ABS |
| (B)MAX7603S  | 14"                                         | -40°C to +85°C    | 17-7PH SST | SST             | Black UV-Stable ABS |
| BMAX7633S    | 14"                                         | -40°C to +85°C    | 17-7PH SST | SST             | Black UV-Stable ABS |
| (B)MAX7635S  | 25"                                         | -40°C to +85°C    | 17-7PH SST | SST             | Black UV-Stable ABS |
| BMAX8053     | 13"                                         | -40°C to +85°C    | 17-7PH SST | SST             | Black UV-Stable ABS |
| BMAX8155S    | 13"                                         | -40°C to +85°C    | 17-7PH SST | SST             | Black UV-Stable ABS |
| BMAX824/1850 | 12"                                         | -40°C to +85°C    | 17-7PH SST | N/A             | Black UV-Stable ABS |
| BMAX9155S    | 13"                                         | -40°C to +85°C    | 17-7PH SST | SST             | Black UV-Stable ABS |
| MAX8375S     | 13"                                         | -40°C to +85°C    | 17-7PH SST | SST             | Black UV-Stable ABS |
| MAX9053      | 11"                                         | -40°C to +85°C    | 17-7PH SST | N/A             | Black UV-Stable ABS |
| BMAXC24503   | 5.25"                                       | -40°C to +85°C    | 17-7PH SST | N/A             | Black UV-Stable ABS |
| BMAXC24505   | 7.50"                                       | -40°C to +85°C    | 17-7PH SST | N/A             | Black UV-Stable ABS |
| BMAXC233805  | 4.75"                                       | -40°C to +85°C    | 17-7PH SST | N/A             | Black UV-Stable ABS |

\*\*\*Broadband antennas are optimized across the entire specified frequency range



## Heavy-Duty Flexible Antennas

The PCTP heavy-duty mobile antennas feature a rugged, flexible design that provides long lasting performance and reliability under very extreme environmental conditions.

### Features

- Ground plane independent for reliable performance and added installation flexibility
- Heavy-duty, flexible radome design absorbs shock impact for applications requiring a ruggedized antenna solution
- Wideband coverage: ready to use without added field tuning
- UV-stable polyurethane housing withstands severe installation applications. This housing makes the antenna ideal for vehicular installations exposed to extreme temperatures and high vibration conditions, including construction trucks, agriculture tractors and mining vehicles



### STANDARD CONFIGURATION

| Model      | Connector       | Mount             |
|------------|-----------------|-------------------|
| PCTP430    | TNC Plug (Male) | Direct mount only |
| PCTP450    | TNC Plug (Male) | Direct mount only |
| PCTP915    | TNC Plug (Male) | Direct mount only |
| PCTP2425   | TNC Plug (Male) | Direct mount only |
| PCTP/4GLTE | TNC Plug (Male) | Direct mount only |

### ELECTRICAL SPECIFICATIONS

| Model      | Frequency Range           | Gain            | VSWR            | Nominal Impedance | Maximum Power | Polarization     |
|------------|---------------------------|-----------------|-----------------|-------------------|---------------|------------------|
| PCTP430    | 430-450 MHz               | Unity           | < 2.5:1         | 50 ohms           | 5 watts       | Vertical, linear |
| PCTP450    | 450-470 MHz               | 2 dBi           | < 2.5:1         | 50 ohms           | 5 watts       | Vertical, linear |
| PCTP915    | 902-928 MHz               | 2 dBi           | < 2.0:1         | 50 ohms           | 5 watts       | Vertical, linear |
| PCTP2425   | 2400-2500 MHz             | 5 dBi           | < 2.0:1         | 50 ohms           | 5 watts       | Vertical, linear |
| PCTP/4GLTE | 698-960 MHz/1710-2700 MHz | 0-2 dBi typical | < 2.5:1 typical | 50 ohms           | 5 watts       | Vertical, linear |

### MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

| Model      | Dimensions                         | Housing Material              | Ingress Protection | Temperature Range |
|------------|------------------------------------|-------------------------------|--------------------|-------------------|
| PCTP430    | 13 L x 0.62 OD in (330 x 15.74 mm) | Black, UV-stable polyurethane | IP67               | -40°C to +85°C    |
| PCTP450    | 13 L x 0.62 OD in (330 x 15.74 mm) | Black, UV-stable polyurethane | IP67               | -40°C to +85°C    |
| PCTP915    | 13 L x 0.62 OD in (330 x 15.74 mm) | Black, UV-stable polyurethane | IP67               | -40°C to +85°C    |
| PCTP2425   | 13 L x 0.62 OD in (330 x 15.74 mm) | Black, UV-stable polyurethane | IP67               | -40°C to +85°C    |
| PCTP/4GLTE | 11 L x 0.78 OD in (280 x 20 mm)    | Black, UV-stable polyurethane | IP67               | -40°C to +85°C    |

## No Ground Plane Elevated Feed Point Antennas

The elevated feed point antennas are designed for those applications that lack a ground plane. They are ideal for mirror or trunk lid mounting or for vehicles with non-metallic surfaces where no ground plane is available.

### Features

- Elevated feed point eliminates vehicle "shadow" effect
- Does not require a ground plane; excellent for non-metallic vehicles
- Stainless steel shock spring included on all models
- Mates with all 1-1/8"-18 thread mounts, including 3/4" mounts



BMUF7603

### STANDARD CONFIGURATION

| Model       | Recommended Mount (Sold Separately)                       | Rod/Coil Type      |
|-------------|-----------------------------------------------------------|--------------------|
| BMUF8043    | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts | Collinear / Open   |
| BMUF8045    | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts | Trilinear / Open   |
| BMUF7603    | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts | Collinear / Closed |
| MUF8455*    | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts | Trilinear / Closed |
| (B)MUF9115* | Mates with 1-1/8"-18 thread mounts, including 3/4" mounts | Trilinear / Closed |

### ELECTRICAL SPECIFICATIONS

| Model       | Frequency Range | Gain | VSWR    | Average Power | Nominal Impedance | Polarization     |
|-------------|-----------------|------|---------|---------------|-------------------|------------------|
| BMUF8043    | 825-896 MHz     | 3 dB | < 1.5:1 | 125 watts     | 50 ohms           | Vertical, linear |
| BMUF8045    | 806-866 MHz     | 5 dB | < 1.5:1 | 125 watts     | 50 ohms           | Vertical, linear |
| BMUF7603    | 760-870 MHz     | 3 dB | < 1.5:1 | 125 watts     | 50 ohms           | Vertical, linear |
| MUF8455*    | 825-896 MHz     | 5 dB | < 1.5:1 | 125 watts     | 50 ohms           | Vertical, linear |
| (B)MUF9115* | 896-940 MHz     | 5 dB | < 1.5:1 | 125 watts     | 50 ohms           | Vertical, linear |

### MECHANICAL SPECIFICATIONS

| Model       | Approximate Whip Length at Lowest Frequency | Temperature Range | Radiator    | Housing Material    |
|-------------|---------------------------------------------|-------------------|-------------|---------------------|
| BMUF8043    | 23"                                         | -40° to + 85°     | 17-7 PH SST | Black UV-Stable ABS |
| BMUF8045    | 33"                                         | -40° to + 85°     | 17-7 PH SST | Black UV-Stable ABS |
| BMUF7603    | 38"                                         | -40° to + 85°     | 17-7 PH SST | Black UV-Stable ABS |
| MUF8455*    | 33"                                         | -40° to + 85°     | 17-7 PH SST | Black UV-Stable ABS |
| (B)MUF9115* | 32"                                         | -40° to + 85°     | 17-7 PH SST | Black UV-Stable ABS |

\* (B) indicates black option available. To select, add prefix "B" to the part number. Example: BMUF9115

## PCTCN Chrome Nut Antennas

PCTEL's high performance chrome nut antenna series offers a durable, super flexible design and reinforced brass button contact for maximum durability against external shock or limited vehicle height clearance. Wideband performance, attractive "Titanium gray" reflective finish and sleek drop shape rod tip, combined with market competitive prices makes this new series one of the best values on the marketplace.



### Features

- Optimized bandwidth performance - Only 11 models required to cover all frequencies between 118 MHz and 2.5 GHz
- High-Tech "Titanium gray" reflective plating - Closely mimics the color of the metallic surface on which the antenna is installed, nicely complementing the appearance of public safety, livery and service vehicles
- Gold plated, brass contact button interface - Provides optimized electrical performance, corrosion resistance and maximum 100lb pull force resistance for long lasting, trouble-free operation
- Tear drop style rod tip - Less prone to detachment due to impact (factory tuned models only)
- Heavy-duty zinc die cast base for maximum durability and corrosion resistance under extreme weather conditions
- Mates with all 1-1/8"-18 thread mounts, including 3/4" mounts



### ELECTRICAL SPECIFICATIONS - RF ANTENNA

| Model      | Frequency Range | Factory Tuned Frequency | VSWR*   | Average Power | Nominal Impedance | Gain   |
|------------|-----------------|-------------------------|---------|---------------|-------------------|--------|
| PCTCNMFT   | 118-940 MHz     | Field Tunable           | < 2.0:1 | 150 watts     | 50 ohms           | Unity  |
| PCTCN1520  | 152-162 MHz     | 157 MHz                 | < 2.0:1 | 150 watts     | 50 ohms           | Unity  |
| PCTCN1620  | 162-174 MHz     | 167 MHz                 | < 2.0:1 | 150 watts     | 50 ohms           | Unity  |
| PCTCN3840  | 380-430 MHz     | 405 MHz                 | < 2.0:1 | 150 watts     | 50 ohms           | Unity  |
| PCTCN4347  | 430-470 MHz     | 450 MHz                 | < 2.0:1 | 150 watts     | 50 ohms           | Unity  |
| PCTCN4750  | 470-512 MHz     | 491 MHz                 | < 2.0:1 | 150 watts     | 50 ohms           | Unity  |
| PCTCN7080  | 740-870 MHz     | 805 MHz                 | < 2.0:1 | 150 watts     | 50 ohms           | Unity  |
| PCTCN8090  | 806-960 MHz     | 883 MHz                 | < 2.0:1 | 150 watts     | 50 ohms           | Unity  |
| PCTCN8063  | 806-866 MHz     | 836 MHz                 | < 2.0:1 | 150 watts     | 50 ohms           | 3 dB   |
| PCTCN8963  | 896-940 MHz     | 918 MHz                 | < 2.0:1 | 150 watts     | 50 ohms           | 3 dB   |
| PCTCN24005 | 2.4-2.5 GHz     | 2.45 GHz                | < 2.0:1 | 150 watts     | 50 ohms           | 4.5 dB |



### MECHANICAL SPECIFICATIONS

| Model      | Approximate Antenna Height | Mount Nut                        | Radiator Material                                      |
|------------|----------------------------|----------------------------------|--------------------------------------------------------|
| PCTCNMFT   | 24.0"                      | Zinc die cast; "Titanium" finish | .062" diameter stainless steel, "Titanium gray" finish |
| PCTCN1520  | 18.0"                      | Zinc die cast; "Titanium" finish | .062" diameter stainless steel, "Titanium gray" finish |
| PCTCN1620  | 18.0"                      | Zinc die cast; "Titanium" finish | .062" diameter stainless steel, "Titanium gray" finish |
| PCTCN3840  | 7.38"                      | Zinc die cast; "Titanium" finish | .062" diameter stainless steel, "Titanium gray" finish |
| PCTCN4347  | 6.2"                       | Zinc die cast; "Titanium" finish | .062" diameter stainless steel, "Titanium gray" finish |
| PCTCN4750  | 5.6"                       | Zinc die cast; "Titanium" finish | .062" diameter stainless steel, "Titanium gray" finish |
| PCTCN7080  | 3.3"                       | Zinc die cast; "Titanium" finish | .062" diameter stainless steel, "Titanium gray" finish |
| PCTCN8090  | 3.0"                       | Zinc die cast; "Titanium" finish | .062" diameter stainless steel, "Titanium gray" finish |
| PCTCN8063  | 14.5"                      | Zinc die cast; "Titanium" finish | .062" diameter stainless steel, "Titanium gray" finish |
| PCTCN8963  | 12.0"                      | Zinc die cast; "Titanium" finish | .062" diameter stainless steel, "Titanium gray" finish |
| PCTCN24005 | 8.75"                      | Zinc die cast; "Titanium" finish | .062" diameter stainless steel, "Titanium gray" finish |

\* VSWR at resonance is < 1.5:1

## G Series

Black or chrome 3-1/4" diameter magnetic mount; 1-1/8"-18 thread

### STANDARD CONFIGURATION

| Model        | Length of Coax | Coax               | Connector* | Type   |
|--------------|----------------|--------------------|------------|--------|
| (R)(B)G-NC   | 12'            | RG-58A/U           | None       | N/A    |
| (R)(B)GC-NC  | 12'            | RG-58/U            | None       | N/A    |
| (R)(B)G      | 12'            | RG-58A/U           | PL259**    | Crimp  |
| (R)GP        | 12'            | RG-58/U            | PTFE PL259 | Solder |
| (R)(B)GPL    | 12'            | RG-58/U            | Mini-UHF   | Crimp  |
| (R)GML195NCP | 12'            | Pro-Flex™ Plus 195 | N          | Crimp  |
| (R)(B)GNCP   | 12'            | RG-58/U            | N          | Crimp  |

For other cable types, lengths or connector configuration options, contact PCTEL Customer Service.



G

## GM Series

Black or chrome 2-3/8" diameter magnetic mount; 1-1/8"-18 thread

### STANDARD CONFIGURATION

| Model         | Length of Coax | Coax               | Connector*   | Type  |
|---------------|----------------|--------------------|--------------|-------|
| (B)GM-NC      | 12'            | RG-58A/U           | None         | N/A   |
| (B)GMML195-NC | 12'            | Pro-Flex™ Plus 195 | None         | N/A   |
| (B)GM         | 12'            | RG-58A/U           | PL259*       | Crimp |
| (B)GMBN       | 12'            | RG-58/U            | BNC          | Crimp |
| (B)GMC        | 12'            | RG-58/U            | TNC          | Crimp |
| (B)GMML195C   | 12'            | Pro-Flex™ Plus 195 | TNC          | Crimp |
| BGMFFME       | 12'            | RG-58/U            | Female FME** | Crimp |
| (B)GMSMA      | 12'            | RG-58/U            | Male SMA     | Crimp |
| (B)GMPL       | 12'            | RG-58/U            | Mini-UHF     | Crimp |

For other cable types, lengths or connector configuration options, contact PCTEL Customer Service.



BGM



GM

\* Connectors are shipped loose. Connectors may be attached upon request for an additional charge.\*\* Connectors are attached on these models only.(R) prefix indicates an optional rubber boot(B) prefix indicates black optionFor other connector options, please refer to the Mobile Antenna Mounts Configurator Part Number Guide.

## Thick Surface Mounts - BRASS "BMA" Series

3/8" or 3/4" hole; 1-1/8"-18 thread; installs from above; can be used for metal thickness up to 1/8"



### STANDARD CONFIGURATION

| Model    | Length of Coax | Coax    | Connector* | Type   |
|----------|----------------|---------|------------|--------|
| BMA38**  | 17'            | N/A     | None       | N/A    |
| BMA-NC** | 17'            | RG-58/U | None       | N/A    |
| BMA      | 17'            | RG-58/U | PL259      | Solder |
| BMANCP   | 17'            | RG-58/U | N          | Crimp  |
| BMAPL    | 17'            | RG-58/U | Mini-UHF   | Crimp  |



BMA

For other cable types, lengths or connector configuration options, contact PCTEL Customer Service.

## Thick Surface Mounts - BMATM Series

3/8" or 3/4" hole; 1-1/8"-18 thread; thick plate; installs from below; can be used for metal thickness to 3/16"

### STANDARD CONFIGURATION

| Model        | Length of Coax | Coax               | Connector* | Type   |
|--------------|----------------|--------------------|------------|--------|
| BMATM-NC     | 17'            | RG-58/U            | None       | N/A    |
| BMATMML195NC | 17'            | Pro-Flex™ Plus 195 | None       | N/A    |
| BMATM        | 17'            | RG-58/U            | PL259      | Solder |
| BMATMCP      | 17'            | RG-58/U            | PL259      | Crimp  |
| BMATMC       | 17'            | RG-58/U            | TNC        | Crimp  |
| BMATM38      | N/A            | None               | None       | N/A    |



BMATM

For other cable types, lengths or connector configuration options, contact PCTEL Customer Service.

## Thick Surface Mounts - K/KE794 Series

3/4" hole for up to 1/2" Thick Roof Thickness

### STANDARD CONFIGURATION

| Model | Length of Coax | Coax    | Connector* |
|-------|----------------|---------|------------|
| K794  | 17'            | RG-58/U | None       |
| KE794 | 30'            | RG-58/U | None       |



K794 Series

For other cable types, lengths or connector configuration options, contact PCTEL Customer Service.

\* Connectors are shipped loose. Connectors may be attached upon request for an additional charge

\*\* This mount installs from below. For other connector options, please refer to the Mobile Antenna Mounts Configurator Part Number Guide.

## Thick Surface Mounts - BMATM3 Series

3/8" hole; 1-1/8"-18 thread; thick plate; can be used for metal thickness of 1/32"-1/2"



### STANDARD CONFIGURATION

| Model      | Length of Coax | Coax    | Connector* | Type   |
|------------|----------------|---------|------------|--------|
| BMATM338   | N/A            | None*   | None       | N/A    |
| BMATM3-NC  | 17'            | RG-58/U | None       | N/A    |
| BMATM3     | 17'            | RG-58/U | PL259      | Solder |
| BMATM3MSMA | 17'            | RG-58/U | Male SMA   | Crimp  |
| BMATM3PL   | 17'            | RG-58/U | Mini-UHF   | Crimp  |



BMATM338

For other cable types, lengths or connector configuration options, contact PCTEL Customer Service.

## Thick Surface Mounts - MTPM Series

5/8" hole; 1-1/8"-18 thread; thick plate mount; can be used for metal thickness of up to 1 inch. MTPM800 accommodates thickness up to 1/2 inch.

### STANDARD CONFIGURATION

| Model   | Coax  | Connector* |
|---------|-------|------------|
| MTPM    | None* | UG363/U    |
| MTPM800 | None* | N Female   |



MTPM



MTPM800

## Vandal Proof Mounts - MVP Series

1-1/8"-18 thread; crimp on

### STANDARD CONFIGURATION

| Model  | Termination | Mount                                                                                                                      | Coax                                            |
|--------|-------------|----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| MVPHP  | N Female    | 3/4" hole vandal-proof permanent mount for frequencies from 0 MHz to 6 GHz.<br>Accommodates surfaces up to 1/2-inch thick. | None. Purchase mating cable assembly separately |
| MMF-VP | Male SMA    | 5/8" hole vandal-proof mount for frequencies from 0 MHz to 6 GHz.<br>Accommodates surfaces up to .09-inch thick.           | None. Purchase mating cable assembly separately |



MVPHP



MMF-VP

\*Connectors are shipped loose. Connectors may be attached upon request for an additional charge. For other connector options, please refer to the Mobile Antenna Mounts Configurator Part Number Guide.

## NMO Style Mounts - Brass "NMO" Series

### Gold Contact Pin and Brass Nut Ring

3/4" hole; 1-1/8"-18 thread; installs from above; can be used for metal thickness to 0.046"



#### STANDARD CONFIGURATION

| Model         | Length of Coax | Coax               | Connector*           | Type   |
|---------------|----------------|--------------------|----------------------|--------|
| NMO58AU-NC    | 17'            | RG-58A/U           | None                 | N/A    |
| NMO34         | NA             | N/A                | NA                   | N/A    |
| NMOPFP195-NC  | 17'            | Pro-Flex™ Plus 195 | None                 | N/A    |
| NMO58U-NC     | 17'            | RG-58/U            | None                 | N/A    |
| NMO58UBN      | 17'            | RG-58/U            | BNC                  | Crimp  |
| NMO58UFFME    | 17'            | RG-58/U            | Female FME*          | Crimp  |
| NMOPFP195FFME | 17'            | Pro-Flex™ Plus 195 | Female FME*          | Crimp  |
| NMOPFP195MSMA | 17'            | Pro-Flex™ Plus 195 | Male SMA             | Crimp  |
| NMOPFP195RPC  | 17'            | Pro-Flex™ Plus 195 | Reverse Polarity TNC | Crimp  |
| NMO58AUSP     | 17'            | RG-58A/U           | PL259                | Solder |
| NMO58AUCP     | 17'            | RG-58A/U           | PL259                | Crimp  |
| NMO58UCP      | 17'            | RG-58/U            | PL259                | Crimp  |
| NMOPFP195C    | 17'            | Pro-Flex™ Plus 195 | TNC                  | Crimp  |
| NMO58UC       | 17'            | RG-58/U            | TNC                  | Crimp  |
| NMO58AUPL     | 17'            | RG-58A/U           | Mini-UHF             | Crimp  |



NMO34

For other cable types, lengths or connector configuration options, contact PCTEL Customer Service.

## NMO Style Mounts - Stainless Steel "SM" Series

3/4" hole; 1-1/8"-18 thread; installs from above; can be used for metal thickness to 0.46"

#### STANDARD CONFIGURATION

| Model  | Length of Coax | Coax     | Connector* | Type   |
|--------|----------------|----------|------------|--------|
| SM34   | 17'            | N/A      | None       | N/A    |
| SMC-NC | 17'            | RG-58/U  | None       | N/A    |
| SM     | 17'            | RG-58A/U | PL259      | Solder |
| SMPL   | 17'            | RG-58/U  | Mini-UHF   | Crimp  |
| SMC    | 17'            | RG-58/U  | TNC        | Crimp  |



SM

For other cable types, lengths or connector configuration options, contact PCTEL Customer Service.

\* Connectors are attached on these models only. For all other models, connectors are shipped loose. Connectors may be attached upon request for an additional charge. For other connector options, please refer to the Mobile Antenna Mounts Configurator Part Number Guide.

## Heavy-Duty Magnetic Mount Series

Black 3-1/4" diameter magnetic mount; 1-1/8"-18 thread



### STANDARD CONFIGURATION

| Model        | Coax                      | Connector         | Tab                  | Use with PCTEL Antenna Platforms                  |
|--------------|---------------------------|-------------------|----------------------|---------------------------------------------------|
| PCTMAG-HD    | 12-foot Pro-Flex Plus 195 | Attached TNC Male | 18-8 Stainless Steel | PCTCN Chrome Nut or BMAX Molded Coil Antennas     |
| PCTMAG-HD-NT | 12-foot Pro-Flex Plus 195 | Attached TNC Male | -                    | PCTWSLMR, MHB and MUF Chrome Coil and MLPV Series |



PCTMAG-HD



PCTMAG-HD-NT

For other cable lengths and connector configuration options, contact PCTEL Customer Service.

## High Frequency Mounts

1-1/8"-18 thread; Crimp on

### STANDARD CONFIGURATION

| Model      | Mount Type                                                                                                          | Coax                                            | Connector*                                                                        |
|------------|---------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|-----------------------------------------------------------------------------------|
| MMF        | 3/4" hole permanent microwave mount for frequencies from 0 MHz to 6.0 GHz. Accommodates thickness up to .06 inches. | None. Purchase mating cable assembly separately | Male SMA                                                                          |
| MMF-VP     | 3/4" hole vandal-proof mount for frequencies from 0 GHz to 6 GHz. Accommodates surfaces up to .09-inch thick.       | None. Purchase mating cable assembly separately | Male SMA                                                                          |
| MLFML195C  | 3/4" hole permanent mount for frequencies from 0 MHz to 6.0 GHz. Accommodates thickness up to 0.046 inches.         | 17 ft. Pro-Flex™ Plus 195                       | Loose TNC Male standard. Contact customer service for other connector options.    |
| GMLFML195C | Magnetic base mount for frequencies from 0 MHz to 6.0 GHz.                                                          | 12 ft. Pro-Flex™ Plus 195                       | Attached TNC Male standard. Contact customer service for other connector options. |
| MLFPP240C  | 3/4" hole permanent mount for frequencies from 0 MHz to 6.0 GHz. Accommodates thickness up to 0.046 inches.         | 17 ft. Pro-Flex™ Plus 240                       | Loose TNC Male standard. Contact customer service for other connector options.    |



MMF



MMF-VP



MLFML195C



GMLFML195C

For other cable lengths and connector configuration options, contact PCTEL Customer Service.

## High Frequency Mounts For Thick Roof Surfaces

5/8" hole; 1-1/8"-18 thread; Crimp on

### STANDARD CONFIGURATION

| Model | Mount Type                                                                                               | Coax                                            | Connector |
|-------|----------------------------------------------------------------------------------------------------------|-------------------------------------------------|-----------|
| MVPHF | Vandal-proof permanent mount for frequencies from 0 MHz to 6 GHz. Accommodates thickness up to 1/2-inch. | None. Purchase mating cable assembly separately | N Female  |



MVPHF

## K Mounts

3/4" Hole Rooftop Mounts for 800 MHz "Male-Female Contact" Antennas



### STANDARD CONFIGURATION

| Model    | Length of Coax | Coax               | Connector*       |
|----------|----------------|--------------------|------------------|
| K166M    | 17'            | RG-58/U            | Mini-UHF crimped |
| K166T    | 17'            | RG-58/U            | TNC Male crimped |
| KD166T   | 17'            | Pro-Flex™ Plus 195 | TNC Male crimped |
| KE166U   | 17'            | Pro-Flex™ Plus 195 | FME Female       |
| KE166UMT | 17'            | Pro-Flex™ Plus 195 | FME Female**     |



K166

3/8" Snap-In Rooftop Mount for Quarter Wave Antennas (sold in packs of 5 units each)

### STANDARD CONFIGURATION

| Model     | Length of Coax | Coax            | Connector |
|-----------|----------------|-----------------|-----------|
| K44//5PCK | N/A            | Sold Separately | None      |



K44//5PCK

## (B)MBM Series

Black or chrome, 1-1/8"-18 thread; mirror bracket mount

### STANDARD CONFIGURATION

| Model***  | Length of Coax | Coax     | Connector* | Type   |
|-----------|----------------|----------|------------|--------|
| (B)MBM-NC | 17'            | RG-58A/U | None       | N/A    |
| MBMC-NC   | 17'            | RG-58/U  | None       | N/A    |
| (B)MBM    | 17'            | RG-58A/U | PL259      | Solder |
| (B)MBMC   | 17'            | RG-58/U  | TNC        | Crimp  |
| (B)MBMPL  | 17'            | RG-58/U  | Mini-UHF   | Crimp  |



BMBM MOUNTS

For other cable types, lengths or connector configuration options, contact PCTEL Customer Service.

\* Connectors are shipped loose. Connectors may be attached upon request for an additional charge

\*\* Plus MINI-UHF to FME and TNC to FME adapter loose

\*\*\* (B) prefix indicates black option



## TGBWP Series

1-1/8"-18 thread; trunk/hood groove bracket mount

### STANDARD CONFIGURATION

| Model       | Length of Coax | Coax    | Connector*  | Cable Exit Angle | Type  |
|-------------|----------------|---------|-------------|------------------|-------|
| TGBWP45C-NC | 17'            | RG-58/U | None        | 45°              | N/A   |
| TGBWP45PL   | 17'            | RG-58/U | Mini-UHF    | 45°              | Crimp |
| TGBWP45FFME | 17'            | RG-58/U | Female FME* | 45°              | Crimp |



TGBWP45

## T Series

1-1/8"-18 thread mount; trunk lid mount

### STANDARD CONFIGURATION

| Model | Length of Coax | Coax     | Connector* | Type   |
|-------|----------------|----------|------------|--------|
| TTT   | NA             | None     | None       | N/A    |
| T-NC  | 17'            | RG-58A/U | None       | N/A    |
| TC-NC | 17'            | RG-58/U  | None       | N/A    |
| T     | 17'            | RG-58A/U | PL259      | Solder |
| TC    | 17'            | RG-58/U  | TNC        | Crimp  |
| TPL   | 17'            | RG-58/U  | Mini-UHF   | Crimp  |



T

## BMT Series

Black 1-1/8"-18 thread; all metal trunk lid mount; 17' RG-58/U or RG-58A//U cable options.

For other cable lengths and connector configuration options, contact PCTEL Customer Service.



BMT

\* Connectors are shipped loose. Connectors may be attached upon request for an additional charge. For other connector options, please refer to the Mobile Antenna Mounts Configurator Part Number Guide.



## Multi-Band LTE MIMO Antenna with High Rejection GPS/GLONASS, Heavy-Duty

The Rhino dual LTE antenna provides optimal 4G LTE coverage in a single, low-profile housing. The antenna also incorporates PCTEL's unique high rejection GPS/GLONASS technology for optimal performance and support of carrier voice and data networks. Glass reinforced Polycarbonate housing and heavy-duty metal base plate makes this antenna extremely rugged and ideal for heavy equipment applications susceptible to high shock impact, including mining, agriculture, construction and defense vehicles.

### Features

- No tune, multi-band coverage: dual 4G LTE and GPS L1/Galileo, and GLONASS L1 frequencies
- Ruggedized UV-resistant, fiberglass reinforced housing for added impact shock absorption and integrity in high vibration installations
- IP67 compliant design provides maximum protection against water or dust ingress under severe environmental conditions\*
- RF240 low loss pigtails for LTE and high quality connectors for maximum RF system efficiency
- Metal 1-inch stud mount with slotted jam nut provides single cable exit for easier installation and/or antenna replacement
- Proprietary filtering design allows wideband coverage while achieving superior out-of-band rejection for all GNSS frequencies



HDGLDLTE-LFF

### STANDARD CONFIGURATION

| Model        | Cables                                                         | Connectors**                      | Mounting Method                                                                                |
|--------------|----------------------------------------------------------------|-----------------------------------|------------------------------------------------------------------------------------------------|
| HDGLDLTE-LFF | Two 1-foot PFP240 low loss (LTE)<br>One 1-foot RG-174/U (GNSS) | Male SMA (LTE)<br>Male SMA (GNSS) | 1-inch OD, 3/4-inch long (.75") zinc stud mount with jam nut for permanent mount installations |

### ELECTRICAL SPECIFICATIONS - RF ANTENNA

| Frequency Range             | Elements                 | Polarization     | Nominal Impedance | Gain*** (typical) | Maximum Power | VSWR    |
|-----------------------------|--------------------------|------------------|-------------------|-------------------|---------------|---------|
| 698-960 MHz / 1710-2700 MHz | 4G LTE Elements (2 each) | Vertical, linear | 50 ohms           | 2.5 dBi           | 50 watts      | < 2.0:1 |

### ELECTRICAL SPECIFICATIONS - GNSS ANTENNA

| Frequency Band | Amplifier Gain             | Output VSWR     | DC Current      | DC Voltage                                        | Noise Figure:      | Out-of-Band Rejection:                                          |
|----------------|----------------------------|-----------------|-----------------|---------------------------------------------------|--------------------|-----------------------------------------------------------------|
| 1565-1608 MHz  | @ 3.0 VDC: 26 dB (typical) | 2.0:1 (maximum) | 25 mA (typical) | 2.8-6.0 V (operating)<br>≤ 12.0 V (survivability) | < 2.0 dB (typical) | f0 = 1586 MHz<br>f0 ± 50 MHz: ≥ 60 dBc<br>f0 ± 60 MHz: ≥ 70 dBc |

\* When properly installed on a vehicle rooftop per PCTEL installation instructions.

\*\* Consult Customer Service for other connector options

\*\*\* Measured on a 4-foot diameter ground plane. Gain value is measured at the base of the antenna (no cable loss included).

## Multi-Band LTE MIMO Antenna with High Rejection GPS/GLONASS, Heavy-Duty



### ELECTRICAL SPECIFICATIONS - GNSS ANTENNA

| Frequency Band | Nominal Gain                  | Polarization        | Nominal Impedance |
|----------------|-------------------------------|---------------------|-------------------|
| 1565-1608 MHz  | 3 dBic @ 90°<br>-2 dBic @ 20° | Right hand circular | 50 ohms           |

### MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

| Dimensions                                           | Housing Material                       | Gasket Design & Construction                                                                                                                                                                                           | Temperature Range | Ingress Protection |
|------------------------------------------------------|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--------------------|
| 10.04 L x 3.9 H x 2.19 W in<br>(255 x 100 x 55.8 mm) | Off-White<br>GFR-PC<br>(Polycarbonate) | Contour matching, conformable, thermoplastic-elastomer gasket designed to seal between radome and baseplate. Gasket flexes and conforms to contoured surfaces. Baseplate has a 3M™ VHB mounting pad for anti-rotation. | -40°C to +85°C    | IP67****           |

\*\*\*\* When installed according to the manufacturer's installation instructions.

## Multi-Band LTE MIMO & 802.11ac Antennas with High Rejection GPS/GLONASS, Compact Footprint



The Trooper antennas provide optimal 4G LTE and dual-band 802.11ac Wi-Fi coverage in a single, low-profile housing. Its compact footprint makes this antenna ideal for installation on surfaces with limited surface space, including leading public safety vehicle rooftops and many machine-to-machine applications. The antennas also incorporate PCTEL's unique high rejection GPS/GLONASS technology for optimal performance and support of carrier voice and data networks.



GLHPDLTEMIMO-LTB and  
GLHPDLTEMIMO-LTW

### Features

- No tune, multi-band coverage: dual 4G LTE, 802.11ac Wi-Fi and GPS L1/GLONASS frequencies
- Metal 3/4-inch stud mount with slotted jam nut provides single cable exit for easier installation and/or antenna replacement
- IP67 compliant design provides maximum protection against water or dust ingress under severe environmental conditions\*
- UV-resistant black or white housing options complement most vehicular aesthetic requirements

### STANDARD CONFIGURATION

| Model            | Cable                                                                                                                       | Connector**                                                            | Mount                                                          | Housing Color |
|------------------|-----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|----------------------------------------------------------------|---------------|
| GLHPDLTE-LTB     | Two-17 feet Pro-Flex™ Plus 195 (4G LTE)<br>One-17 feet RG-174/U (GNSS)                                                      | SMA Plug (LTE)<br>SMA Plug (GNSS)                                      | 1-inch hole, 3/4-inch long (.75") zinc stud mount with jam nut | Black         |
| GLHPDLTE-LTW     | Two-17 feet Pro-Flex™ Plus 195 (4G LTE)<br>One-17 feet RG-174/U (GNSS)                                                      | SMA Plug (LTE)<br>SMA Plug (GNSS)                                      | 1-inch hole, 3/4-inch long (.75") zinc stud mount with jam nut | White         |
| GLHPDLTEMIMO-LTB | Two-17 feet Pro-Flex™ Plus 195 (4G LTE)<br>Two-17 feet Pro-Flex™ Plus 195 (802.11ac Wi-Fi)<br>One-17 feet RG-174/U (GNSS)   | SMA Plug (LTE)<br>Reverse Polarity SMA Plug (Wi-Fi)<br>SMA Plug (GNSS) | 1-inch hole, 3/4-inch long (.75") zinc stud mount with jam nut | Black         |
| GLHPDLTEMIMO-LTW | Two-17 feet Pro-Flex™ Plus 195 (4G LTE)<br>Two-17 feet Pro-Flex™ Plus 195 (802.11ac Wi-Fi)<br>One-17 feet RG-174/U (GNSS)   | SMA Plug (LTE)<br>Reverse Polarity SMA Plug (Wi-Fi)<br>SMA Plug (GNSS) | 1-inch hole, 3/4-inch long (.75") zinc stud mount with jam nut | White         |
| GLHPDM3-LTB      | Two-17 feet Pro-Flex™ Plus 195 (4G LTE)<br>Three-17 feet Pro-Flex™ Plus 195 (802.11ac Wi-Fi)<br>One-17 feet RG-174/U (GNSS) | SMA Plug (LTE)<br>Reverse Polarity SMA Plug (Wi-Fi)<br>SMA Plug (GNSS) | 1-inch hole, 3/4-inch long (.75") zinc stud mount with jam nut | Black         |
| GLHPDM3-LTW      | Two-17 feet Pro-Flex™ Plus 195 (4G LTE)<br>Three-17 feet Pro-Flex™ Plus 195 (802.11ac Wi-Fi)<br>One-17 feet RG-174/U (GNSS) | SMA Plug (LTE)<br>Reverse Polarity SMA Plug (Wi-Fi)<br>SMA Plug (GNSS) | 1-inch hole, 3/4-inch long (.75") zinc stud mount with jam nut | White         |

\* If installed according to PCTEL's installation instructions \*\* Consult Customer Service for other connector options. \*\*\* Measured on a 4-foot diameter ground plane. Gain value is measured at the base of the antenna (no cable loss included). \*\*\*\* VSWR < 2:1 across all bands when measured on 1-ft diameter ground plane with 17-ft cable. When measured on 1-ft diameter ground plane with 1-ft cable, VSWR < 2:1 698-960MHz, <2:1 1710-2170MHz, and < 2.5:1 2300-2700MHz.



## Multi-Band LTE MIMO & 802.11ac Antennas with High Rejection GPS/GLONASS, Compact Footprint

### ELECTRICAL SPECIFICATIONS - RF ANTENNA

| Model            | Elements                                             | Operating Frequencies                                | Polarization     | Nominal Impedance | Gain*** (typical)  | Maximum Power | VSWR**** |
|------------------|------------------------------------------------------|------------------------------------------------------|------------------|-------------------|--------------------|---------------|----------|
| GLHPDLTE-LTB     | 4G LTE Elements (2 each)                             | 698-960 MHz/1710-2700 MHz                            | Vertical, linear | 50 ohms           | 2.5 dBi            | 50 watts      | < 2.0:1  |
| GLHPDLTE-LTW     | 4G LTE Elements (2 each)                             | 698-960 MHz/1710-2700 MHz                            | Vertical, linear | 50 ohms           | 2.5 dBi            | 50 watts      | < 2.0:1  |
| GLHPDLTEMIMO-LTB | 4G LTE Elements (2 each)<br>Wi-Fi Elements (2 each)  | 698-960 MHz/1710-2700 MHz<br>2.4-2.5 GHz/4.9-5.9 GHz | Vertical, linear | 50 ohms           | 2.5 dBi<br>3-4 dBi | 50 watts      | < 2.0:1  |
| GLHPDLTEMIMO-LTW | 4G LTE Elements (2 each)<br>Wi-Fi Elements (2 each)  | 698-960 MHz/1710-2700 MHz<br>2.4-2.5 GHz/4.9-5.9 GHz | Vertical, linear | 50 ohms           | 2.5 dBi<br>3-4 dBi | 50 watts      | < 2.0:1  |
| GLHPDM3-LTB      | 4G LTE Elements (2 each),<br>Wi-Fi Elements (3 each) | 698-960 MHz/1710-2700 MHz<br>2.4-2.5 GHz/4.9-5.9 GHz | Vertical, linear | 50 ohms           | 2.5 dBi<br>3-4 dBi | 50 watts      | < 2.0:1  |
| GLHPDM3-LTW      | 4G LTE Elements (2 each),<br>Wi-Fi Elements (3 each) | 698-960 MHz/1710-2700 MHz<br>2.4-2.5 GHz/4.9-5.9 GHz | Vertical, linear | 50 ohms           | 2.5 dBi<br>3-4 dBi | 50 watts      | < 2.0:1  |

### ELECTRICAL SPECIFICATIONS - GNSS ANTENNA

| Frequency Range | Amplifier Gain                | Nominal Impedance | Output VSWR     | DC Current      | DC Voltage                                        | Noise Figure       |
|-----------------|-------------------------------|-------------------|-----------------|-----------------|---------------------------------------------------|--------------------|
| 1565-1608 MHz   | @ 3.0 VDC:<br>26 dB (typical) | 50 ohms           | 2.0:1 (maximum) | 25 mA (typical) | 2.8-6.0 V (operating)<br>≤ 12.0 V (survivability) | < 2.0 dB (typical) |

### ELECTRICAL SPECIFICATIONS - GNSS ANTENNA, continued

| Out-of-Band Rejection                                                                                                | Nominal Gain                 | Polarization        |
|----------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------|
| $f_0 = 1586 \text{ MHz} / f_0 \pm 50 \text{ MHz}: \geq 60 \text{ dBc} / f_0 \pm 60 \text{ MHz}: \geq 70 \text{ dBc}$ | 3 dBic @ 90° / -2 dBic @ 20° | Right hand circular |

### MECHANICAL SPECIFICATIONS

| Dimensions (W x H)                    | Radome Construction             | Operating/Storage Temperature | Gasket Design & Construction                                                                                                                                                                                           |
|---------------------------------------|---------------------------------|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4.05 W x 3.46 H in<br>(10.3 x 8.8 cm) | UV-Stable Rugged Thermoplastics | -40°C to +85°C                | Contour matching, conformable, thermoplastic-elastomer gasket designed to seal between radome and baseplate. Gasket flexes and conforms to contoured surfaces. Baseplate has a 3M™ VHB mounting pad for anti-rotation. |



## Multi-Band Bluetooth/Wi-Fi Antenna with Proprietary High Rejection GPS/GLONASS, Compact Footprint

The GLMBWIFI-QMA provides Bluetooth/Wi-Fi coverage and asset tracking support for public safety vehicles requiring a rugged and lower profile antenna solution for their Wi-Fi hot-spot networks. The GLMBWIFI-QMA features a shorter housing for installations with height clearance limitations, such as public safety motorcycles. When properly installed, this antenna is IP67 compliant for maximum protection against water or dust ingress under severe environmental conditions. The antenna's low loss coax cables are terminated with Male QMA connectors but other connector options and cable lengths are available upon request.

### Features

- No tune, dual-band 2.4/5 GHz Wi-Fi and Bluetooth coverage with high rejection GPS L1/GLONASS
- Metal 3/4-inch stud mount with slotted jam nut provides single cable exit for easier installation and/or antenna replacement
- IP67 compliant design provides maximum protection against water or dust ingress under severe environmental conditions\*
- Low-profile, UV-resistant housing for low overhead clearance applications



GLMBWIFI-QMA antenna with cables

### STANDARD CONFIGURATION

| Model        | Cable                                                      | Connector**                            | Mount                                                          | Housing Color |
|--------------|------------------------------------------------------------|----------------------------------------|----------------------------------------------------------------|---------------|
| GLMBWIFI-QMA | One-17 feet PFP240 (BT/Wi-Fi)<br>One-17 feet PFP100 (GNSS) | QMA Plug (BT/Wi-Fi)<br>QMA Plug (GNSS) | 1-inch hole, 3/4-inch long (.75") zinc stud mount with jam nut | Black         |

### ELECTRICAL SPECIFICATIONS - RF ANTENNA

| Model        | Elements      | Operating Frequencies        | Polarization     | Nominal Impedance | Gain***            | Maximum Power | VSWR****           |
|--------------|---------------|------------------------------|------------------|-------------------|--------------------|---------------|--------------------|
| GLMBWIFI-QMA | Wi-Fi Element | 2.4-2.5 GHz /<br>4.9-5.9 GHz | Vertical, linear | 50 ohms           | 3.5 dBi<br>3.2 dBi | 50 watts      | < 2.0:1<br>< 2.0:1 |

\* If installed according to PCTEL's installation instructions.

\*\* Consult Customer Service for other connector options.

\*\*\*Peak gain measured in an anechoic setup/open space with no interference, with the antenna mounted on a 36" diameter ground plane. Measured gain is corrected for the appropriate cable loss.

\*\*\*\*Measured in an anechoic setup/open space with no interference, with the antenna mounted on a 36" diameter ground plane.



## Multi-Band Bluetooth/Wi-Fi Antenna with Proprietary High Rejection GPS/ GLONASS, Compact Footprint

### ELECTRICAL SPECIFICATIONS - GNSS ANTENNA

| Frequency Range | Amplifier Gain                | Nominal Impedance | Output VSWR     | DC Current      | DC Voltage                                        | Noise Figure          |
|-----------------|-------------------------------|-------------------|-----------------|-----------------|---------------------------------------------------|-----------------------|
| 1565-1608 MHz   | @ 3.0 VDC:<br>26 dB (typical) | 50 ohms           | 2.0:1 (maximum) | 25 mA (typical) | 2.8-6.0 V (operating)<br>≤ 12.0 V (survivability) | < 2.0 dB<br>(typical) |

### ELECTRICAL SPECIFICATIONS - GNSS ANTENNA, continued

| Out-of-Band Rejection                                                                                                | Nominal Gain                 | Polarization        |
|----------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------|
| $f_0 = 1586 \text{ MHz} / f_0 \pm 50 \text{ MHz}: \geq 60 \text{ dBc} / f_0 \pm 60 \text{ MHz}: \geq 70 \text{ dBc}$ | 3 dBic @ 90° / -2 dBic @ 20° | Right hand circular |

### MECHANICAL SPECIFICATIONS

| Dimensions<br>(W x H)                              | Radome<br>Construction             | Operating/Storage<br>Temperature | Gasket Design & Construction                                                                                                                                                                                           |
|----------------------------------------------------|------------------------------------|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4.05 W x 4.7 L x 2.75 H in<br>(10.3 x 7 x 11.9 cm) | UV-Stable Rugged<br>Thermoplastics | -40°C to +85°C                   | Contour matching, conformable, thermoplastic-elastomer gasket designed to seal between radome and baseplate. Gasket flexes and conforms to contoured surfaces. Baseplate has a 3M™ VHB mounting pad for anti-rotation. |

3M is a trademark of 3M Company.



## Multi-Band LTE MIMO & 802.11ac Antennas with High Rejection GPS/GLONASS

The Coach antennas provide optimal 4G LTE and dual-band 802.11ac Wi-Fi coverage in a single, low-profile housing. The antennas also incorporate PCTEL's unique high rejection GPS/GLONASS technology for optimal performance and support of carrier voice and data networks.

### Features

- No tune, multi-band coverage: dual 4G LTE, dual or triple 802.11 ac Wi-Fi MIMO options, and GPS L1/Galileo/GLONASS frequencies
- Metal 1-inch stud mount with slotted jam nut provides single cable exit for easier installation and/or antenna replacement
- IP67 compliant design provides maximum protection against water or dust ingress under severe environmental conditions\*
- UV-resistant black or white housing options complement most vehicular aesthetic requirements
- Proprietary filtering design allows wideband coverage while achieving superior out-of-band rejection for all GNSS frequencies



GLHPDLTEMIMO-SF (left)  
BGLHPDLTEMIMO-SF (right)

### STANDARD CONFIGURATION

| Model           | Cable                                                                                                                                                | Connectors***                                                          | Mounting Method                                                                    |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| GLHPDLTEMIMO-SF | Two-17 feet Pro-Flex™ Plus 195 (4G LTE Elements)<br>Two-17 feet Pro-Flex™ Plus 195 (802.11n Wi-Fi Elements)<br>One-17 feet RG-174/U (GNSS Element)   | SMA Plug (LTE)<br>Reverse Polarity SMA Plug (Wi-Fi)<br>SMA Plug (GNSS) | 1-inch OD,<br>3/4-inch long (.75")<br>zinc stud mount with<br>jam nut (all models) |
| GLHPDLTE-SF     | Two-17 feet Pro-Flex™ Plus 195 (4G LTE Elements)<br>One-17 feet RG-174/U (GNSS Element)                                                              | SMA Plug (LTE)<br>SMA Plug (GNSS)                                      |                                                                                    |
| GLHPDM3-SF      | Two-17 feet Pro-Flex™ Plus 195 (4G LTE Elements)<br>Three-17 feet Pro-Flex™ Plus 195 (802.11n Wi-Fi Elements)<br>One-17 feet RG-174/U (GNSS Element) | SMA Plug (LTE)<br>Reverse Polarity SMA Plug (Wi-Fi)<br>SMA Plug (GNSS) |                                                                                    |

### ELECTRICAL SPECIFICATIONS - RF ANTENNAS

| Model           | Frequency Range                                          | Elements                                                      | Polarization     | Nominal Impedance | Gain** (typical)   | Maximum Power | VSWR**  |
|-----------------|----------------------------------------------------------|---------------------------------------------------------------|------------------|-------------------|--------------------|---------------|---------|
| GLHPDLTEMIMO-SF | 698-960 MHz / 1710-2700 MHz<br>2.4-2.5 GHz / 4.9-5.9 GHz | 4G LTE Elements (2 each)<br>Dual-Band Wi-Fi Elements (2 each) | Vertical, linear | 50 ohms           | 2.5 dBi<br>3-4 dBi | 50 watts      | < 2.0:1 |
| GLHPDLTE-SF     | 698-960 MHz / 1710-2700 MHz                              | 4G LTE Elements (2 each)                                      | Vertical, linear | 50 ohms           | 2.5 dBi            | 50 watts      | < 2.0:1 |
| GLHPDM3-SF      | 698-960 MHz / 1710-2700 MHz<br>2.4-2.5 GHz / 4.9-5.9 GHz | 4G LTE Elements (2 each)<br>Dual-Band Wi-Fi Elements (3 each) | Vertical, linear | 50 ohms           | 2.5 dBi<br>3-4 dBi | 50 watts      | < 2.0:1 |

\* When properly installed on a vehicle rooftop per PCTEL installation instructions. \*\* Measured on a 4-foot diameter ground plane. Gain value is measured at the base of the antenna (no cable loss included).

\*\*\* Consult Customer Service for other connector options.

## Multi-Band LTE MIMO & 802.11ac Antennas with High Rejection GPS/GLONASS



### ELECTRICAL SPECIFICATIONS - GNSS ANTENNA

| Frequency Band | Amplifier Gain             | Output VSWR     | DC Current      | DC Voltage                                        | Noise Figure:      | Out-of-Band Rejection:                                                                              |
|----------------|----------------------------|-----------------|-----------------|---------------------------------------------------|--------------------|-----------------------------------------------------------------------------------------------------|
| 1565-1608 MHz  | @ 3.0 VDC: 26 dB (typical) | 2.0:1 (maximum) | 25 mA (typical) | 2.8-6.0 V (operating)<br>≤ 12.0 V (survivability) | < 2.0 dB (typical) | f <sub>0</sub> = 1586 MHz<br>f <sub>0</sub> ± 50 MHz: ≥ 60 dBc<br>f <sub>0</sub> ± 60 MHz: ≥ 70 dBc |

### ELECTRICAL SPECIFICATIONS - GNSS ANTENNA

| Frequency Band | Nominal Gain                  | Polarization        | Nominal Impedance |
|----------------|-------------------------------|---------------------|-------------------|
| 1565-1608 MHz  | 3 dBic @ 90°<br>-2 dBic @ 20° | Right hand circular | 50 ohms           |

### MECHANICAL SPECIFICATIONS AND ENVIRONMENTAL SPECIFICATIONS (ALL MODELS)

| Dimensions                    | Housing Material*****                           | Temperature Range | Gasket Design & Construction                                                                                                                                                                                           |
|-------------------------------|-------------------------------------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5.1 x 3.6 in<br>(130 x 92 mm) | White or Black, UV-Stable Rugged Thermoplastics | -40°C to +85°C    | Contour matching, conformable, thermoplastic-elastomer gasket designed to seal between radome and baseplate. Gasket flexes and conforms to contoured surfaces. Baseplate has a 3M™ VHB mounting pad for anti-rotation. |

\*\*\*\*\*VSWR < 2:1 across all bands when measured on 1-ft diameter ground plane with 17-ft cable. When measured on 1-ft diameter ground plane with 1-ft cable, VSWR < 2:1 698-960 MHz, <2:1 1710-2170 MHz, and < 2.5:1 2300-2700 MHz. 3M is a trademark of 3M Company.  
\*\*\*\*\*Black radome option also available. Add "B" in front of the part number for black radome option.

## Multi-Band LTE MIMO & 802.11ac Antennas with High Rejection GPS/GLONASS

The Coach antennas provide optimal 4G LTE and dual-band 802.11ac Wi-Fi coverage in a single, low-profile housing. The antennas also incorporate PCTEL's unique high rejection GPS/GLONASS technology for optimal performance and support of carrier voice and data networks.

### Features

- No tune, multi-band coverage: dual 4G LTE, dual 802.11ac Wi-Fi, GPS L1, and GLONASS L1 frequencies
- Magnetically mounted using heavy-duty internal rare earth magnets
- Rubber pad on the bottom of the antenna prevents slippage and protects the mounting surface
- Attractive low-profile housing for added overhead clearance
- IP67 compliant design provides maximum protection against water or dust ingress under severe environmental conditions
- High performance, low loss cable and high quality connectors for maximum RF system efficiency
- UV-resistant black or white housing options complement most vehicular aesthetic requirements
- Proprietary filtering design allows wideband coverage while achieving superior out-of-band rejection for all GNSS frequencies



GLHPDLTEMIMO-SF-MM



BGLHPDLTEMIMO-SF-MM

### STANDARD CONFIGURATION

| Model              | Cable                                                                                                                                        | Connectors*                                                            | Mounting Method                |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|--------------------------------|
| GLHPDLTEMIMO-SF-MM | Two-17 feet Pro-Flex™ Plus 195 (4G LTE Elements)<br>Two-17 feet Pro-Flex™ Plus 195 (Wi-Fi Elements)<br>One-17 feet RG-174/U (GNSS Element)   | SMA Plug (LTE)<br>Reverse Polarity SMA Plug (Wi-Fi)<br>SMA Plug (GNSS) | Magnetic Mount<br>(all models) |
| GLHPDM3-SF-MM      | Two-17 feet Pro-Flex™ Plus 195 (4G LTE Elements)<br>Three-17 feet Pro-Flex™ Plus 195 (Wi-Fi Elements)<br>One-17 feet RG-174/U (GNSS Element) | SMA Plug (LTE)<br>Reverse Polarity SMA Plug (Wi-Fi)<br>SMA Plug (GNSS) |                                |
| GLHPDLTE-SF-MM     | Two-17 feet Pro-Flex™ Plus 195 (4G LTE Elements)<br>One-17 feet RG-174/U (GNSS Element)                                                      | SMA Plug (LTE)<br>SMA Plug (GPS)                                       |                                |

### ELECTRICAL SPECIFICATIONS - RF ANTENNAS

| Model              | Frequency Range             | Elements                          | Polarization     | Nominal Impedance | Gain** (typical) | Maximum Power | VSWR*** |
|--------------------|-----------------------------|-----------------------------------|------------------|-------------------|------------------|---------------|---------|
| GLHPDLTEMIMO-SF-MM | 698-960 MHz / 1710-2700 MHz | 4G LTE Elements (2 each)          | Vertical, linear | 50 ohms           | 2.5 dBi          | 50 watts      | < 2.0:1 |
|                    | 2.4-2.5 GHz / 4.9-5.9 GHz   | Dual-Band Wi-Fi Elements (2 each) |                  |                   | 3-4 dBi          |               |         |
| GLHPDM3-SF-MM      | 698-960 MHz / 1710-2700 MHz | 4G LTE Elements (2 each)          | Vertical, linear | 50 ohms           | 2.5 dBi          | 50 watts      | < 2.0:1 |
|                    | 2.4-2.5 GHz / 4.9-5.9 GHz   | Wi-Fi Elements (3 each)           |                  |                   | 3-4 dBi          |               |         |
| GLHPDLTE-SF-MM     | 698-960 MHz / 1710-2700 MHz | 4G LTE Elements (2 each)          | Vertical, linear | 50 ohms           | 2.5 dBi          | 50 watts      | < 2.0:1 |
|                    |                             |                                   |                  |                   | 2.5 dBi          |               |         |

## Multi-Band LTE MIMO & 802.11ac Antennas with High Rejection GPS/GLONASS



### ELECTRICAL SPECIFICATIONS - GNSS ANTENNA

| Frequency Band | Amplifier Gain             | Output VSWR     | DC Current      | DC Voltage                                        |
|----------------|----------------------------|-----------------|-----------------|---------------------------------------------------|
| 1565-1608 MHz  | @ 3.0 VDC: 26 dB (typical) | 2.0:1 (maximum) | 25 mA (typical) | 2.8-6.0 V (operating)<br>≤ 12.0 V (survivability) |

### ELECTRICAL SPECIFICATIONS - GNSS ANTENNA

| Noise Figure       | Out-of-Band Rejection                                                                               | Nominal Gain                  | Polarization        | Nominal Impedance |
|--------------------|-----------------------------------------------------------------------------------------------------|-------------------------------|---------------------|-------------------|
| < 2.0 dB (typical) | f <sub>0</sub> = 1586 MHz<br>f <sub>0</sub> ± 50 MHz: ≥ 60 dBc<br>f <sub>0</sub> ± 60 MHz: ≥ 70 dBc | 3 dBic @ 90°<br>-2 dBic @ 20° | Right hand circular | 50 ohms           |

### MECHANICAL & ENVIRONMENTAL SPECIFICATIONS (ALL MODELS)

| Dimensions                      | Housing Material                                   | Temperature Range | Gasket Design & Construction                                                                        |
|---------------------------------|----------------------------------------------------|-------------------|-----------------------------------------------------------------------------------------------------|
| 5.1 OD x 3.6 H in (13 x 9.2 cm) | White or Black**** UV-Stable Rugged Thermoplastics | -40°C to +85°C    | Anti-skid liner installed at contact surface to ensure a high friction and mar-free magnetic mount. |

\* Consult Customer Service for other connector options.

\*\* Measured on a 4-foot diameter ground plane. Gain value is measured at the base of the antenna (no cable loss included).

\*\*\* VSWR < 2:1 across all bands when measured on 1-ft diameter ground plane with 17-ft cable.

When measured on 1-ft diameter ground plane with 1-ft cable, VSWR < 2:1 698-960MHz, <2:1 1710-2170MHz, and < 2.5:1 2300-2700MHz.

\*\*\*\*Black radome option also available. Add "B" in front of the part number for black radome option.

## GNSS+ Combination Antennas with High Rejection Technology



The Max-Matics™ GNSS+ High Rejection combination antennas have been designed to provide maximum performance and versatility for telematics applications, including fleet monitoring and asset tracking.

By combining the high performance of a GNSS antenna with the flexibility to add virtually any PCTEL permanent mount compatible mobile antenna, the GNSS+ provides reliable, real-time wireless voice and data coverage for fleet monitoring applications. This antenna is designed to facilitate installation. It includes all necessary hardware for “blind” installations when removal of the vehicle’s headliner is not desired.

Its precise performance and ease of installation provides outstanding value and flexibility for the most demanding wireless mobile applications.



GNSSPSM-S1-S1

### Features

- Combination GNSS/mobile antenna design provides GPS/QZSS/GALILEO/GLONASS tracking coverage and voice/data wireless coverage capabilities for fleet monitoring or fleet tracking applications
- UV-stable housing features attractive industrial design
- Proprietary filtering design allows wideband coverage while achieving superior out-of-band rejection for all GNSS frequencies
- Various connector options are available for both the GNSS antenna and the mobile antenna’s permanent mount

### STANDARD CONFIGURATION

| Model         | Cable                                                               | Connector*                           | Mount                           | Mobile Antenna Mount Interface |
|---------------|---------------------------------------------------------------------|--------------------------------------|---------------------------------|--------------------------------|
| GNSSPSM-S1-S1 | 17' RG-174 (GNSS antenna side)<br>17' RG-58/U (mobile antenna side) | SMA Plug (GNSS)<br>SMA Plug (Mobile) | 3/4-inch hole<br>permanent stud | 1-1/8"-18 thread mount         |

### ELECTRICAL SPECIFICATIONS - GNSS ANTENNA

| Frequency Band | LNA Gain                    | Element Gain                  | Polarization        | Out of Band Rejection                                             |
|----------------|-----------------------------|-------------------------------|---------------------|-------------------------------------------------------------------|
| 1565-1610 MHz  | @ 3.0VDC: 26dB<br>(typical) | 3 dBic @ 90°<br>-2 dBic @ 20° | Right hand circular | f0 = 1586 MHz<br>f0 +/- 50MHz : ≥ 60dBc<br>f0 +/- 60MHz : ≥ 70dBc |

### ELECTRICAL SPECIFICATIONS - GNSS ANTENNA, continued

| Current Draw         | DC Voltage                                        | Noise Figure          | VSWR               | Nominal Impedance |
|----------------------|---------------------------------------------------|-----------------------|--------------------|-------------------|
| < 25 mA<br>(typical) | 2.8-6.0 V (operating)<br>≤ 12.0 V (survivability) | < 2.0 dB<br>(typical) | 2.0:1<br>(maximum) | 50 ohms           |

### MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

| Dimensions                                          | Housing Material              | Storage Temperature Range | Operating Temperature Range | Burn-out Protection                                                                                            |
|-----------------------------------------------------|-------------------------------|---------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------|
| 2.25W x 4.25 L x 1.25 H in<br>(57 x 107 x 31.75 mm) | Black UV-Stable Polycarbonate | -40°C to +85°C            | -40°C to +85°C              | Protected from damage by RF signals when the power received by the antenna is no greater than +17 dBm, maximum |

\* Consult Customer Service for other connector options.



## GNSS-HR26PM Low-Profile Antenna with High Rejection GNSS Technology

The GNSS-HR26PM vehicle tracking antenna features a light, low-profile housing that is ideal for fleet management applications. Its radome is molded from high grade polymer resin for maximum UV and abrasion resistance under severe environmental conditions. Its electrically shielded LNA PCB assembly and ceramic filter are designed to provide proprietary high out-of-band rejection for optimal integration in congested wireless installations.



GNSS-HR26PM

### Features

- GPS L1 & GLONASS L1 Frequencies
- Proprietary filtering design allows wideband coverage while achieving superior out-of-band rejection for all GNSS frequencies
- Rugged, low-profile housing for minimum visibility
- 26 dB gain
- ESD protection
- IP56 ingress protection

### STANDARD CONFIGURATION

| Model       | Cable                      | Connector** | Mount                                                                                                       |
|-------------|----------------------------|-------------|-------------------------------------------------------------------------------------------------------------|
| GNSS-HR26PM | 5 Meters RG174 (16.4 Feet) | SMA Plug    | 1/2-inch built-in threaded stud mount for 1-inch diameter mounting holes. For up to 1/4-inch (6mm) surfaces |

### ELECTRICAL SPECIFICATIONS - GNSS ANTENNA

| Frequency Band | LNA Gain                 | Element Gain  | Polarization        | Out of Band Rejection                                             | VSWR          |
|----------------|--------------------------|---------------|---------------------|-------------------------------------------------------------------|---------------|
| 1565-1610 MHz  | @ 3.0VDC: 26dB (typical) | -2 dBic @ 20° | Right hand circular | f0 = 1586 MHz<br>f0 +/- 50MHz : ≥ 60dBc<br>f0 +/- 60MHz : ≥ 70dBc | 2.0:1 maximum |

### ELECTRICAL SPECIFICATIONS - GNSS ANTENNA, continued

| Current Draw      | DC Voltage                                        | Noise Figure       | Nominal Impedance |
|-------------------|---------------------------------------------------|--------------------|-------------------|
| < 25 mA (typical) | 2.8-6.0 V (operating)<br>≤ 12.0 V (survivability) | < 2.0 dB (typical) | 50 ohms           |

### MECHANICAL SPECIFICATIONS

| Dimensions                        | Weight   | Housing Material     |
|-----------------------------------|----------|----------------------|
| 2.5" OD x 0.5" D (63.5 x 12.7 mm) | 25 grams | Black, UV-Stable ASA |

### ENVIRONMENTAL SPECIFICATIONS

| Temperature Range          | Humidity | Mechanical Shock | Fluid Shower                                                                 |
|----------------------------|----------|------------------|------------------------------------------------------------------------------|
| -40°C to +85°C (operating) | 95%      | 25 g maximum     | Water, salt mist, windshield wiper fluid, detergent with wax: no degradation |

\*When installed according to the manufacturer's installation instructions.

\*\* Consult Customer Service for other connector options.

## 8171D-HR Low-Profile Tracking Antenna with High Rejection GNSS Technology



The 8171D-HR-DH-W High Rejection GPS/GLONASS Antenna is a dual-band antenna covering both GPS L1 and GLONASS L1 frequencies. PCTEL's proprietary filtering design allows wideband coverage while achieving superior out-of-band rejection. This antenna comes in an all-plastic, non-corrosive low-profile package for vehicle mounting or fixed installations. This antenna is ideal for any global GPS/GLONASS tracking or time synchronization application that requires an externally mounted antenna.



8171D-HR

### Features

- GPS L1 & GLONASS L1 frequencies
- Proprietary filtering design allows wideband coverage while achieving superior out-of-band rejection for all GNSS frequencies 26dB LNA Gain
- Low noise figure < 2.0dB
- IP67, low-profile design\*\*

### STANDARD CONFIGURATION

| Model    | Connector  | Mount                            |
|----------|------------|----------------------------------|
| 8171D-HR | TNC Female | 3/4" thru-hole or bracket mount* |

### ELECTRICAL SPECIFICATIONS - GNSS ANTENNA

| Frequency Band | LNA Gain                   | Element Gain | Polarization        | Out of Band Rejection                                                                               |
|----------------|----------------------------|--------------|---------------------|-----------------------------------------------------------------------------------------------------|
| 1565-1610 MHz  | @ 3.0 VDC: 26 dB (typical) | 2 dBic @ 90° | Right hand circular | f <sub>0</sub> = 1586 MHz<br>f <sub>0</sub> ± 50 MHz: ≥ 60 dBc<br>f <sub>0</sub> ± 60 MHz: ≥ 70 dBc |

### ELECTRICAL SPECIFICATIONS - GNSS ANTENNA, continued

| Current Draw      | DC Voltage                                        | Noise Figure       | Nominal Impedance |
|-------------------|---------------------------------------------------|--------------------|-------------------|
| < 25 mA (typical) | 2.8-6.0 V (operating)<br>≤ 12.0 V (survivability) | < 2.0 dB (typical) | 50 ohms           |

### MECHANICAL SPECIFICATIONS

| Dimensions                          | Weight            | Housing Material     | Shock                             | Vibration                                           |
|-------------------------------------|-------------------|----------------------|-----------------------------------|-----------------------------------------------------|
| 2.36" Dia x 0.83" H<br>(60 x 21 mm) | 0.1 lbs<br>(50 g) | Black, Lexan EXL9330 | Vertical axis 50G, other axes 30G | 3 axis, sweep = 15 min<br>10 – 200 Hz log sweep: 3G |

### ENVIRONMENTAL SPECIFICATIONS

| Temperature Range        | Ingress Protection |
|--------------------------|--------------------|
| -40°C to +85°C operating | IP67**             |

\* Order MMK1925 for compatible mounting.

\*\* When installed according to manufacturer's installation instructions.



## 8178D-HR Low-Profile, High Gain Antenna with High Rejection GNSS Technology

The 8178D-HR High Rejection, High Gain GPS/GLONASS Antenna is a dual-band antenna covering both GPS L1 and GLONASS L1 frequencies. PCTEL's proprietary filtering design allows wideband coverage while achieving superior out-of-band rejection. This antenna comes in an all-plastic, non-corrosive low-profile package for vehicle mounting or fixed installations. This antenna is ideal for any global GPS/GLONASS tracking or time synchronization application that requires an externally mounted antenna and an extended run of cable.



8178D-HR

### Features

- GPS L1 & GLONASS L1 frequencies
- Proprietary filtering design allows wideband coverage while achieving superior out-of-band rejection for all GNSS frequencies
- 40dB LNA gain
- Low noise figure < 2.0dB
- IP67, low-profile design\*\*

### STANDARD CONFIGURATION

| Model    | Connector  | Mount                                |
|----------|------------|--------------------------------------|
| 8178D-HR | TNC Female | 3/4-inch thru-hole or bracket mount* |

### ELECTRICAL SPECIFICATIONS - GNSS ANTENNA

| Frequency Band | LNA Gain                   | Element Gain | Polarization        | Out of Band Rejection                                                                               |
|----------------|----------------------------|--------------|---------------------|-----------------------------------------------------------------------------------------------------|
| 1565-1610 MHz  | @ 3.0 VDC: 40 dB (typical) | 2 dBic @ 90° | Right hand circular | f <sub>0</sub> = 1586 MHz<br>f <sub>0</sub> ± 50 MHz: ≥ 60 dBc<br>f <sub>0</sub> ± 60 MHz: ≥ 70 dBc |

### ELECTRICAL SPECIFICATIONS - GNSS ANTENNA, continued

| Current Draw     | DC Voltage                                      | Noise Figure       | Nominal Impedance |
|------------------|-------------------------------------------------|--------------------|-------------------|
| < 28mA (typical) | 2.8-6.0V (operating)<br>≤ 12.0V (survivability) | < 2.0 dB (typical) | 50 ohms           |

### MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

| Dimensions                       | Weight         | Housing Material     | Shock                             | Vibration                                           | Temperature Range        | Ingress Protection |
|----------------------------------|----------------|----------------------|-----------------------------------|-----------------------------------------------------|--------------------------|--------------------|
| 2.36 OD x 0.83 H in (60 x 21 mm) | 0.1 lbs (50 g) | Black, Lexan EXL9330 | Vertical axis 50G, other axes 30G | 3 axis, sweep = 15 min<br>10 – 200 Hz log sweep: 3G | -40°C to +85°C operating | IP67**             |

\* Order MMK1925 for compatible mounting.

\*\* When installed according to the manufacturer's installation instructions.



## GNSS26GMMSMA Glass Mount Antenna with High Rejection GNSS Technology

The GNSS26GMMSMA glass mount is GNSS antenna utilizes an electrically shielded LNA PCB assembly and ceramic filter designed to provide proprietary high out-of-band rejection for optimal integration in congested RF installations. The assembly is permanently encased in a compact, UV-stable radome, making it ideal for concealed vehicle tracking applications.

### Features

- GPS L1 & GLONASS L1 Frequencies
- Proprietary filtering design allows wideband coverage while achieving superior out-of-band rejection for all GNSS frequencies
- High bond tape for vehicle windshield glass installation
- Rugged, low-profile housing for minimum visibility
- 26 dB gain
- ESD protection



GNSS26GMMSMA

### STANDARD CONFIGURATION

| Model        | Cable            | Connector* | Mount                             |
|--------------|------------------|------------|-----------------------------------|
| GNSS26GMMSMA | 17 feet RG-174/U | SMA Plug   | High Bond tape for glass mounting |

### ELECTRICAL SPECIFICATIONS - GNSS ANTENNA

| Frequency Band | LNA Gain                 | Element Gain | Polarization        | Out of Band Rejection                                                                                 | VSWR          |
|----------------|--------------------------|--------------|---------------------|-------------------------------------------------------------------------------------------------------|---------------|
| 1565-1610 MHz  | @ 3.0VDC: 26dB (typical) | 2 dBic @ 90° | Right hand circular | f <sub>0</sub> = 1586 MHz<br>f <sub>0</sub> +/- 50MHz : ≥ 60dBc<br>f <sub>0</sub> +/- 60MHz : ≥ 70dBc | 2.0:1 maximum |

### ELECTRICAL SPECIFICATIONS - GNSS ANTENNA, continued

| Current Draw      | DC Voltage                                        | Noise Figure       | Nominal Impedance |
|-------------------|---------------------------------------------------|--------------------|-------------------|
| < 25 mA (typical) | 2.8-6.0 V (operating)<br>≤ 12.0 V (survivability) | < 2.0 dB (typical) | 50 ohms           |

### MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

| Dimensions                                        | Weight   | Housing Material         | Temperature Range | Humidity | High Bond Tape Specifications                                                                          |
|---------------------------------------------------|----------|--------------------------|-------------------|----------|--------------------------------------------------------------------------------------------------------|
| 2.22 L x 1.97 w x .59 in<br>(56.2 x 50 x 14.9 mm) | 25 grams | Black, UV-stable plastic | -40°C to +85°C    | 95%      | Conformable foam<br>Acrylic adhesive<br>Moisture and Solvent resistant<br>High Shear and peel adhesion |

\* Consult Customer Service for other connector options.

## 8111D-HR Magnetic Tracking Antenna with High Rejection GNSS Technology



The 8111D-HR antenna is a dual-band, high rejection antenna covering both the GPS L1 and GLONASS L1 frequencies. PCTEL's proprietary filtering design allows wideband coverage while achieving superior out-of-band rejection. This antenna is ideal for any global GPS/GLONASS tracking application that requires an externally mounted antenna. Using internal magnets or screw mount holes, the antenna can be installed almost anywhere on a vehicle allowing for greater flexibility.



8111D-HR

### Features

- GPS L1 & GLONASS L1 frequencies
- Proprietary filtering design allows wideband coverage while achieving superior out-of-band rejection for all GNSS frequencies
- 26 dB LNA gain
- IP67, low-profile design\*\*

### STANDARD CONFIGURATION

| Model    | Cable                                            | Connector* | Mount                                                                          |
|----------|--------------------------------------------------|------------|--------------------------------------------------------------------------------|
| 8111D-HR | 16.4' (5 meters) highly flexible 174 sized cable | SMA Plug   | Magnetic (5 lb lift-off force) or permanent (pre-threaded for 3 x M2.5 screws) |

### ELECTRICAL SPECIFICATIONS - GNSS ANTENNA

| Frequency Band          | LNA Gain                   | Element Gain                  | Polarization        | Out of Band Rejection                                                                               |
|-------------------------|----------------------------|-------------------------------|---------------------|-----------------------------------------------------------------------------------------------------|
| 1565-1610 MHz (typical) | @ 3.0 VDC: 26 dB (typical) | 3 dBic @ 90°<br>-2 dBic @ 20° | Right hand circular | f <sub>0</sub> = 1586 MHz<br>f <sub>0</sub> ± 50 MHz: ≥ 60 dBc<br>f <sub>0</sub> ± 60 MHz: ≥ 70 dBc |

### ELECTRICAL SPECIFICATIONS - GNSS ANTENNA, continued

| Current Draw      | DC Voltage                                        | Noise Figure       | VSWR                   | Nominal Impedance |
|-------------------|---------------------------------------------------|--------------------|------------------------|-------------------|
| < 25 mA (typical) | 2.8-6.0 V (operating)<br>≤ 12.0 V (survivability) | < 2.0 dB (typical) | ≤ 1.5:1 (at connector) | 50 ohms           |

### MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

| Dimensions                                      | Weight              | Housing Material     | Shock                                | Vibration                                           | Temperature Range           | Ingress Protection |
|-------------------------------------------------|---------------------|----------------------|--------------------------------------|-----------------------------------------------------|-----------------------------|--------------------|
| 1.77 L x 2.01 W x .47 D in<br>(45 x 51 x 12 mm) | 0.26 lbs<br>(120 g) | Black, Lexan EXL9330 | Vertical axis 50G,<br>other axes 30G | 3 axis, sweep = 15 min<br>10 – 200 Hz log sweep: 3G | -40°C to +85°C<br>operating | IP67**             |

\* Consult Customer Service for other connector options. \*\* When installed according to the manufacturer's installation instructions.



## Multi-Band LTE & 802.11ac MIMO Antennas with High Rejection GPS

This Wi-Fi MIMO antenna provides optimal 4G LTE and dual-band 802.11ac Wi-Fi coverage in a single 4-port, low-profile housing. The antenna also incorporates a high rejection GPS LNA assembly for optimal performance and support of carrier voice and data networks.

### Features

- No tune, multi-band coverage: 4G LTE, 802.11ac Wi-Fi MIMO and GPS L1 frequencies
- Metal 3/4-inch stud mount with slotted jam nut provides single cable exit for easier installation and/or antenna replacement
- IP67 compliant design\*
- High performance, low loss cable and high quality connectors
- UV-resistant black or white housing options



GPSHPMIMO-LTB



GPSHPMIMO-LTW

### STANDARD CONFIGURATION

| Model         | Cable (Both Models)                                          | Connectors**        | Mounting Method                                                | Housing Color |
|---------------|--------------------------------------------------------------|---------------------|----------------------------------------------------------------|---------------|
| GPSHPMIMO-LTB | 17 feet Pro-Flex™ Plus 195 (4G LTE Element)                  | SMA Plug            | 1-inch hole, 3/4-inch long (.75") zinc stud mount with jam nut | Black         |
|               | 17 feet Pro-Flex™ Plus 195 (802.11n Wi-Fi Elements - 2 each) | RP-SMA Plug (Wi-Fi) |                                                                |               |
| GPSHPMIMO-LTW | 17 feet RG-174/U (GPS L1)                                    | SMA Plug (GPS)      |                                                                | White         |

### ELECTRICAL SPECIFICATIONS - RF ANTENNAS

| Frequency Range                             | Elements                                           | Polarization     | Nominal Impedance | Gain*** (typical) | Maximum Power | VSWR**** |
|---------------------------------------------|----------------------------------------------------|------------------|-------------------|-------------------|---------------|----------|
| 698-960 MHz / 1710-2700 MHz / 2300-2700 MHz | 4G LTE Element<br>802.11ac Wi-Fi Elements (2 each) | Vertical, linear | 50 ohms           | 2.5 dBi           | 50 watts      | < 2.0:1  |

### ELECTRICAL SPECIFICATIONS - GPS ANTENNA

| DC Current:                             | DC Voltage | Noise Figure   | Filtering                                          |
|-----------------------------------------|------------|----------------|----------------------------------------------------|
| 20 mA nominal; < 30 mA @ -40°C to +85°C | 3.3-12 V   | 1.8 dB typical | > 40 dB rejection @ ± 50 MHz from center frequency |

### MECHANICAL & ENVIRONMENTAL SPECIFICATIONS (ALL MODELS)

| Dimensions                    | Housing Material                   | Temperature Range | Gasket Design & Construction                                                                                                                                                                                           |
|-------------------------------|------------------------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5.1 x 3.6 in<br>(130 x 92 mm) | Black, UV-Stable Polycarbonate**** | -40°C to +85°C    | Contour matching, conformable, thermoplastic-elastomer gasket designed to seal between radome and baseplate. Gasket flexes and conforms to contoured surfaces. Baseplate has a 3M™ VHB mounting pad for anti-rotation. |

\*\*\* When properly installed on a vehicle rooftop per PCTEL installation instructions. \*\* Consult Customer Service for other connector options.  
 \*\*\* Measured on a 4-foot diameter ground plane. Gain value is measured at the base of the antenna (no cable loss included). \*\*\*\* VSWR < 2:1 across all bands when measured on 1-ft diameter ground plane with 17-ft cable. When measured on 1-ft diameter ground plane with 1-ft cable, VSWR < 2:1 698-960MHz, < 2:1 1710-2170MHz, and < 2.5:1 2170-2700MHz. 3M is a trademark of 3M Company.

## Multi-Band TETRA, LTE Cellular, Wi-Fi Antennas with High Rejection GPS

PCTEL's GPS antenna provides multi-band coverage of TETRA, 700 MHz LTE, GSM, 3G, and Wi-Fi frequencies, in addition to GPS L1 support. Compact and easy to install, this antenna is constructed with high quality components, including a high rejection LNA filter to provide maximum isolation protection for location tracking applications. It is an ideal solution for Mission Critical and Public Safety communications.

### Features

- No tune, multi-band coverage: 380-430 MHz TETRA, 700-2500 MHz LTE/3G, 2.3-2.5 GHz Wi-Fi broadband wireless frequencies and GPS L1 tracking
- Attractive, low-profile, UV-resistant housing for maximum overhead clearance
- IP67 compliant design\*
- High performance, low loss cable and high quality connectors
- High performance GPS assembly for superior out-of-band rejection; provides optimal performance in multi-band installations



GPSHP-UWB

### STANDARD CONFIGURATION

| Model     | Cable                                                                                                                                                                                          | Connectors**                                 | Mounting Method                                                                   |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|-----------------------------------------------------------------------------------|
| GPSHP-UWB | 7.8" (200 mm) Pro-Flex™ Plus 195 (TETRA 380-430 MHz)<br>5.9" (150 mm) Pro-Flex™ Plus 195 (698-2500 MHz)<br>6.8" (175 mm) Pro-Flex™ Plus 195 (2.3-2.5 GHz);<br>10.6" (270 mm) RG-174/U (GPS L1) | SMA Plug<br>SMA Plug<br>SMA Plug<br>SMA Plug | 3/4-inch hole, 3/4-inch long (.75") zinc stud mount with dual jam nuts (included) |

### ELECTRICAL SPECIFICATIONS - RF ANTENNAS

| Frequency Range                          | Polarization     | Nominal Impedance | Gain*** (typical)       | Maximum Power | VSWR****                                   |
|------------------------------------------|------------------|-------------------|-------------------------|---------------|--------------------------------------------|
| 380-430 MHz / 698-2500 MHz / 2.3-2.5 GHz | Vertical, linear | 50 ohms           | 1 dBi<br>3 dBi<br>4 dBi | 50 watts      | < 2.5:1 (max)<br>< 1.68:1 (avg)<br>< 2.0:1 |

### ELECTRICAL SPECIFICATIONS - GPS ANTENNA

| Frequency Band       | DC Current:                                | DC Voltage | Noise Figure   | Filtering                                          |
|----------------------|--------------------------------------------|------------|----------------|----------------------------------------------------|
| 1575.42 MHz (GPS L1) | 20 mA nominal;<br>< 30 mA @ -40°C to +85°C | 3-13.5 V   | 1.8 dB typical | > 40 dB rejection @ ± 50 MHz from center frequency |

### MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

| Dimensions                              | Baseplate Construction***                                   | Radome                         | Temperature Range |
|-----------------------------------------|-------------------------------------------------------------|--------------------------------|-------------------|
| 5.2 OD x 3.7 H in<br>(132 OD x 94 H mm) | Zinc baseplate overmolded with black TPE, SANTOPRENE gasket | UV-Stable CYCOLOY C6200 Radome | -40°C to +85°C    |

\* When properly installed on a vehicle rooftop per PCTEL installation instructions.

\*\* Consult Customer Service for other connector options.

\*\*\* Measured on a 4-foot diameter ground plane. Gain value is measured at the base of the antenna (no cable loss included).

\*\*\*\* VSWR < 2:1 across all bands when measured on 1-ft diameter ground plane with 17-ft cable. When measured on 1-ft diameter ground plane with 1-ft cable, VSWR < 2:1 698-960MHz, < 2:1 1710-2170MHz, and < 2.5:1 2170-2700MHz.



## GPS+ Combination Antennas with High Rejection Technology

PCTEL's Max-Matics™ GPS+ antennas have been designed to provide maximum performance and versatility for telematics applications, including fleet monitoring and asset tracking.

By combining the high performance of a GPS antenna with the flexibility to add virtually any PCTEL permanent mount compatible mobile antenna, the GPS+ provides reliable, real-time wireless voice and data coverage for fleet monitoring applications. This antenna is designed to facilitate installation. It includes all necessary hardware for "blind" installations when removal of the vehicle's headliner is not desired.

Its precise performance and ease of installation provides outstanding value and flexibility for the most demanding wireless mobile applications.



GPSPSM

### Features

- Combination GPS/mobile antenna design provides GPS tracking coverage and voice/data wireless coverage capabilities
- UV-stable housing features attractive industrial design

### STANDARD CONFIGURATION

| Model  | Cable                                                              | Connector*                           | Mount                        | Mobile Antenna Mount Interface |
|--------|--------------------------------------------------------------------|--------------------------------------|------------------------------|--------------------------------|
| GPSPSM | 17' RG-174 (GPS antenna side)<br>17' RG-58/U (mobile antenna side) | SMA Plug (GPS)<br>SMA Plug (Mobile)* | 3/4-inch hole permanent stud | 1-1/8"-18 thread mount         |

### ELECTRICAL SPECIFICATIONS - GPS ANTENNA

| Frequency Band | Amplifier Gain           | Axial Ratio          | Polarization        | Out of Band Rejection |
|----------------|--------------------------|----------------------|---------------------|-----------------------|
| 1575.42 MHz    | @ 3.0VDC: 26dB (typical) | < 3.0 dB @ boresight | Right hand circular | > 40 dB @ ± 50 MHz    |

### ELECTRICAL SPECIFICATIONS - GPS ANTENNA, continued

| Filtering                       | DC Current                                 | DC Voltage                  | Noise Figure | Output VSWR    | Nominal Impedance |
|---------------------------------|--------------------------------------------|-----------------------------|--------------|----------------|-------------------|
| Hybrid (including pre-selector) | 20 mA Nominal;<br>< 30 mA @ -40°C to +85°C | 3.5-5V (internal regulated) | 1.8 typical  | 1.5:1, typical | 50 ohms           |

\*Consult Customer Service for other connector options.

## GPS+ Combination Antennas with High Rejection Technology



### MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

| Dimensions                                           | Housing Material              | Temperature Range | Burn-out Protection                                                                                            |
|------------------------------------------------------|-------------------------------|-------------------|----------------------------------------------------------------------------------------------------------------|
| 2.25 W x 4.25 L x 1.25 H in<br>(5.7 x 10.8 x 3.1 cm) | Black UV-Stable Polycarbonate | -40°C to +85°C    | Protected from damage by RF signals when the power received by the antenna is no greater than +17 dBm, maximum |

### To order, please follow the part number configuration:

| Mount Type                                    | GPS Connector                                                                                                                                                                                                                         | Mobile Antenna Connector                                                                                                                                                                                                          |
|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Begin with this part number:</i><br>GPSPSM | <i>Specify your GPS connector of choice by adding the connector abbreviation from the list below to the part number:</i><br>Male TNC (MC)<br>Male SMA (MSMA)<br>MCX<br>Right angle MMCX plug (RAMMCX)<br>Right angle SMB plug (RASBP) | <i>Choose among any of the connector options available below for the RG-58 cable:</i><br>Reverse Polarity SMA (MSMARP)<br>Mini-UHF (PL)<br>BNC (BN)<br>TNC (C)<br>Male N (NM)<br>Male SMA (MSMA)<br>Right Angle Male SMA (RAMSMA) |

## Low-Profile High Performance GPS L1 Through-Hole Mount Antennas



The Max-Matics™ Shield Permanent mount antennas are designed for fleet management and asset tracking applications requiring a low-profile and compact footprint while supporting precision GPS operation. This antenna platform offers two high gain antenna options and outstanding out-of-band rejection performance for ideal RF system interoperability when installed along other RF radiators.

### Features

- Industry leading out-of-band rejection performance
- Rugged, low-profile housing for minimum visibility
- ESD protection
- 26 dB or high gain 35dB gain options
- Permanent through hole design with slotted jam nut for installation ease



3226MSMA

### STANDARD CONFIGURATION

| Model    | Cable        | Connector* | Mount                                                                                                                                                             |
|----------|--------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3226MSMA | 17 ft RG-174 | SMA Plug   | Through-hole for 1-inch diameter mounting holes<br>Metal thread length: approximately 1/2" (12mm)<br>Accommodates surface thickness up to 1/4" (6mm) (all models) |
| 3235MSMA | 17 ft RG-174 | SMA Plug   |                                                                                                                                                                   |

### ELECTRICAL SPECIFICATIONS - GPS ANTENNA

| Model    | Frequency Band       | LNA Gain          | Element Gain | Polarization        | Out of Band Rejection | DC Current                                |
|----------|----------------------|-------------------|--------------|---------------------|-----------------------|-------------------------------------------|
| 3226MSMA | 1575.42 MHz (GPS L1) | +3.5 dBiC Nominal | 26 dB +/-3   | Right hand circular | > 40 dB @ +/-50 MHz   | 20 mA Nominal<br>< 30 mA @ -40°C to +85°C |
| 3235MSMA | 1575.42 MHz (GPS L1) | 4 dBiC Nominal    | 34 dB +/-4   | Right hand circular | > 40 dB @ +/-50 MHz   | 20 mA Nominal<br>< 30 mA @ -40°C to +85°C |

### ELECTRICAL SPECIFICATIONS - GPS ANTENNA (BOTH MODELS)

| DC Voltage | Noise Figure | VSWR          | Nominal Impedance | Axial Ratio       | Filtering                       |
|------------|--------------|---------------|-------------------|-------------------|---------------------------------|
| 3 - 13.5 V | 1.8 typical  | 1.5:1 typical | 50 ohms           | <3 dB @ boresight | Hybrid (including pre-selector) |

### MECHANICAL & ENVIRONMENTAL SPECIFICATIONS (ALL MODELS)

| Dimensions                         | Weight (Mass) | Housing Material         | Temperature Range          | Humidity | Mechanical Shock | Fluid Shower                                                                   | Ingress Protection |
|------------------------------------|---------------|--------------------------|----------------------------|----------|------------------|--------------------------------------------------------------------------------|--------------------|
| 2.5 OD x 0.5 D in (63.5 x 12.7 mm) | 25 grams      | Black, UV-stable plastic | -40°C to +85°C (operating) | 95%      | 25 g maximum     | Water, salt mist, windshield wiper fluid<br>Detergent with wax: no degradation | IP56               |

\* Consult Customer Service for other connector options.



## High Rejection Low-Profile Permanent Mount GPS Antenna

The 3971D-HR, low-profile permanent mount GPS antenna provides 28 dB gain and superior out-of-band rejection performance and is the optimum choice for GPS Tracking and Timing applications with high RF fields. It features a precision tuned custom ceramic patch element for maximum signal reception, 15KV ESD circuit protection, a 3 stage LNA circuit and dual high rejection SAW filters. This enables the 3971D-HR to provide a reliable and clear GPS signal while minimizing loss-of-lock, even when conditions are less than ideal. Available in an all-plastic, non-corrosive conical package for vehicle mounting or fixed installations.



3971D-HR

### Features

- Weather proof, all-plastic, non-corrosive, low-profile enclosure
- 3/4 inch thru-hole or bracket mount
- High out-of-band rejection for stand-alone or mobile applications where interference is a concern and performance is critical
- Innovative dual SAW filter design
- Voltage range: 2.7 to 5.5 V
- Low current draw: 8 mA @ 3.3 VDC

### STANDARD CONFIGURATION

| Model    | Connector | Mount                            |
|----------|-----------|----------------------------------|
| 3971D-HR | TNC jack  | 3/4" thru-hole or bracket mount* |

### ELECTRICAL SPECIFICATIONS - GPS ANTENNA

| Frequency Band   | LNA Gain | Element Gain                  | Polarization        |
|------------------|----------|-------------------------------|---------------------|
| 1575.42 ± 10 MHz | 28 dB    | 3 dBic @ 90°<br>-2 dBic @ 20° | Right hand circular |

### ELECTRICAL SPECIFICATIONS - GPS ANTENNA, continued

| Out of Band Rejection | Current Draw   | DC Voltage  | Noise Figure     |
|-----------------------|----------------|-------------|------------------|
| > 50 dBc @ ± 40 MHz   | 8 mA @ 3.3 VDC | 2.7-5.5 VDC | 3.1 dB (typical) |

### MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

| Dimensions                         | Weight             | Housing Material                  | Temperature Range        | Ingress Protection |
|------------------------------------|--------------------|-----------------------------------|--------------------------|--------------------|
| 2.36 OD x .83 H in<br>(60 x 21 mm) | 0.11 lbs<br>(50 g) | Black, UV-Stable<br>Polycarbonate | -40°C to +85°C operating | IP67               |

\* Order MMK1925 bracket for compatible mounting.



## 26 dB Gain GPS L1 Glass Mount Antenna

The AGPS26GMMMSMA glass mount global positioning system (GPS) antenna utilizes an electrically shielded LNA PCB assembly and ceramic filter designed to provide high out-of-band rejection for optimal integration in multi-band installations. The assembly is permanently encased in a compact, UV-stable radome, making it ideal for concealed vehicle tracking applications.

### Features

- Outstanding interference rejection
- High bond tape for vehicle windshield glass installation
- Rugged, low-profile housing for minimum visibility
- 26 dB gain
- ESD protection



AGPS26GMMMSMA

### STANDARD CONFIGURATION

| Model         | Cable            | Connector* | Mount                                       |
|---------------|------------------|------------|---------------------------------------------|
| AGPS26GMMMSMA | 17 feet RG-174/U | SMA Plug   | High Bond tape for dashboard glass mounting |

### ELECTRICAL SPECIFICATIONS - GPS ANTENNA

| Nominal Impedance | Element Gain              | Frequency Range          | Amplifier Gain*                              | Polarization        |
|-------------------|---------------------------|--------------------------|----------------------------------------------|---------------------|
| 50 ohms           | At zenith: 3 dBic nominal | 1575.42 ± 1 MHz (GPS L1) | Without antenna element and cable: 26 dB ± 3 | Right hand circular |

### ELECTRICAL SPECIFICATIONS - GPS ANTENNA, continued

| Polarization        | Out of Band Rejection    | Noise Figure      | Axial Ratio        | Current Draw                                                                 | DC Voltage        | VSWR            |
|---------------------|--------------------------|-------------------|--------------------|------------------------------------------------------------------------------|-------------------|-----------------|
| Right hand circular | 40 dB @ ± 50 MHz typical | 1.8 typical @ 25° | < 3 dB @ boresight | @ 5 volts: 20 mA Nominal<br>< 30 mA @ -40°C to +85°C<br>(Filter Out-Of-Band) | 3-5 V (regulated) | 1.5:1 (typical) |

### MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

| Dimensions                                           | Housing Material         | Temperature Range | Humidity     |
|------------------------------------------------------|--------------------------|-------------------|--------------|
| 2.22 L x 1.97 W x 0.59 D in<br>(56.3 x 50 x 14.9 mm) | Black, UV-stable plastic | -40°C to +85°C    | 10 to 95% RH |

\*Consult Customer Service for other connector options.

## High Rejection GPS Magnetic Mount Series



PCTEL's AGPSHP35MMMSMA high rejection magnetic mount global positioning system (GPS) antenna utilizes an electrically shielded LNA PCB assembly and ceramic filter designed to provide high out-of-band rejection for optimal integration in multi-band installations. Its assembly is permanently encased in a compact, UV-stable radome, making it ideal for concealed vehicle tracking applications.

### Features

- Preselection filter for outstanding interference rejection
- Rugged, low-profile housing for minimum visibility
- ESD/Reverse Polarity/Transit voltage protection



AGPSHP35MMMSMA

### STANDARD CONFIGURATION

| Model          | Cable            | Connector* | Mount                            |
|----------------|------------------|------------|----------------------------------|
| AGPSHP35MMMSMA | 17 feet RG-174/U | SMA Plug   | 2 built-in rare earth Nd magnets |

### ELECTRICAL SPECIFICATIONS - GPS ANTENNA

| Frequency Band       | Gain           | Amplifier Gain | Polarization        | Nominal Impedance | Out of Band Rejection         |
|----------------------|----------------|----------------|---------------------|-------------------|-------------------------------|
| 1575.42 MHz (GPS L1) | 4 dBiC Nominal | 35 dB $\pm$ 4  | Right hand circular | 50 ohms           | -40 dB @ $\pm$ 50 MHz typical |

### ELECTRICAL SPECIFICATIONS - GPS ANTENNA, continued

| Noise Figure      | Axial Ratio    | DC Current                             | DC Voltage                   | VSWR            |
|-------------------|----------------|----------------------------------------|------------------------------|-----------------|
| 1.8 typical @ 25° | 3.0 dB typical | 20 mA Nominal < 35 mA @ -40°C to +85°C | 3-5.5 V (internal regulated) | 1.5:1 (typical) |

### MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

| Dimensions                                         | Housing Material         | Cable Pull Force | Magnet Pull Force: | Temperature Range | Humidity     |
|----------------------------------------------------|--------------------------|------------------|--------------------|-------------------|--------------|
| 2 L x 1.77 W x .55 D in<br>(59.8 x 44.9 x 13.9 mm) | Black, UV-stable plastic | 10 lbf, minimum  | 5 lbf, minimum     | -40°C to +85°C    | 10 to 95% RH |

\* Consult Customer Service for other connector options.



## 3911D-HR High Rejection Dual Filter Mobile GPS Antenna for High RF Noise Environments

PCTEL's 3911D-HR low interference GPS Antenna with Dual SAW High Rejection Filters allow excellent performance in high RF noise environments as found on vehicles with multiple antennas. It is ideal for fleet tracking, public safety, transit, precision agricultural and military applications.

The 3911D-HR features ESD circuit protection, an innovative two-stage low noise amplifier and a dual SAW high rejection filter. It also features a custom designed ceramic patch element that minimizes detuning effects caused by adjacent objects. The 3911D-HR provides consistent, clear GPS signal reception while minimizing loss-of-lock in high-RF fields. Housed in a weatherproof magnetic or screw mount enclosure, the 3911D-HR GPS antenna is ideal for demanding vehicle mounted GPS applications.



3911D-HR

### Features

- High rejection dual SAW filters allow placement near other transmitting antennas
- Low current: 7.5 mA @ 3.3V
- Wide voltage input range (2.7 - 5 VDC)
- Robust IP67 housing built for various weather conditions

### STANDARD CONFIGURATION

| Model    | Cable                                            | Connector* | Mount                                                                          |
|----------|--------------------------------------------------|------------|--------------------------------------------------------------------------------|
| 3911D-HR | 16.4' (5 meters) highly flexible 174 sized cable | SMA Plug   | Magnetic (5 lb lift-off force) or permanent (pre-threaded for 3 x M2.5 screws) |

### ELECTRICAL SPECIFICATIONS - GPS ANTENNA

| Frequency Band           | LNA Gain                           | Element Gain                  | Polarization        | Out of Band Rejection   |
|--------------------------|------------------------------------|-------------------------------|---------------------|-------------------------|
| 1575.42 MHz $\pm$ 10 MHz | 25 dB @ 3.3 VDC<br>25.5 dB @ 5 VDC | 3 dBic @ 90°<br>-2 dBic @ 20° | Right hand circular | > 50 dBc @ $\pm$ 40 MHz |

### ELECTRICAL SPECIFICATIONS - GPS ANTENNA, continued

| Current Draw                  | DC Voltage | Noise Figure | VSWR                        | ESD Circuit Protection: |
|-------------------------------|------------|--------------|-----------------------------|-------------------------|
| 7.5 mA @ 3.3V<br>11.5 mA @ 5V | 2.7-5 VDC  | 3.1 dB       | $\leq$ 1.5:1 (at connector) | 15K volts               |

### MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

| Dimensions                                             | Weight             | Shock                                | Vibration                                           | Temperature Range        | Ingress Protection |
|--------------------------------------------------------|--------------------|--------------------------------------|-----------------------------------------------------|--------------------------|--------------------|
| 2.05 L x 2.33 W x 0.54 H in<br>(52.1 x 59.2 x 13.6 mm) | .29 lbs<br>(130 g) | Vertical axis 50G,<br>other axes 30G | 3 axis, sweep = 15 min<br>10 – 200 Hz log sweep: 3G | -40°C to +85°C operating | IP67               |

\* For other connector options, please refer to GPS Mobile Antenna Configurator Part Number Guide  
 \*\* Consult Customer Service for other connector options.

## Low-Profile GPS Multi-Band Antennas

PCTEL's Medallion™ GPS multi-band platform features an attractive modern design in a rugged low-profile housing. The antennas offers multi-band coverage of GSM 850, GSM 900, GSM 1800, GSM 1900, 3G, Wi-Fi/WiMAX frequencies, coupled with GPS L1 capability for outstanding value and flexibility.

### Features

- No tune, multi-band coverage: GSM 850, GSM 900, GSM 1800, GSM 1900, 3G and
- Wi-Fi/WiMAX frequencies, coupled with GPS L1 frequencies
- Stylish low-profile housing provides "omnidirectional" trouble-free installation while complementing most vehicular aesthetic requirements
- Metal 3/4-inch stud mount with slotted jam nut provides single cable exit for easier installation and/or antenna replacement



PCTMDL



### STANDARD CONFIGURATION

| Model      | Cable                                                                                 | Connector (all cables)** |
|------------|---------------------------------------------------------------------------------------|--------------------------|
| PCTMDL     | (1) Voice/Data: 16.5 ft RG-58/U, (1) Wi-Fi: 17 ft RG-58/U, (1) GPS L1: 17 ft RG-174/U | SMA Plug                 |
| PCTMDL-GSM | (1) Voice/Data: 16.5 ft RG-58/U, (1) GPS L1: 17 ft RG-174/U                           | SMA Plug                 |

### ELECTRICAL SPECIFICATIONS - RF ANTENNAS

| Model      | Frequency Range                       | Gain* (Typical)              | VSWR                | Maximum Power             | Nominal Impedance | Polarization     |
|------------|---------------------------------------|------------------------------|---------------------|---------------------------|-------------------|------------------|
| PCTMDL     | 806-960 MHz/1710-2170 MHz 2.3-2.6 GHz | 2.8 dBi / 3.3 dBi<br>3.9 dBi | < 2.0:1 (all bands) | 20 watts<br>10 watts<br>- | 50 ohms           | Vertical, linear |
| PCTMDL-GSM | 806-960 MHz/1710-2170 MHz             | 3.5 dBiC / 3.9 dBi           | < 2.0:1 (all bands) | 20 watts                  | 50 ohms           | Vertical, linear |

### ELECTRICAL SPECIFICATIONS - GPS ANTENNA (ALL MODELS)

| Frequency Band       | Operating Frequency                                                                | Element Gain | GPS Antenna Gain | DC Current                                 | DC Voltage | Noise Figure   | Grounding Protection        | Filtering                                         |
|----------------------|------------------------------------------------------------------------------------|--------------|------------------|--------------------------------------------|------------|----------------|-----------------------------|---------------------------------------------------|
| 1575.42 MHz (GPS L1) | Voice/Data: 806-960 MHz/1710-2170 MHz<br>Wi-Fi: 2.3-2.6 GHz<br>GPS L1: 1575.42 MHz | 27 dB        | 3.5 dBiC         | 20 mA Nominal;<br>< 30 mA @ -40°C to +85°C | 3-5.5 V    | 1.6 dB typical | DC grounded (both antennas) | 20 dB rejection @ ± 100 MHz from center frequency |

### MECHANICAL & ENVIRONMENTAL SPECIFICATIONS (ALL MODELS)

| Dimensions                                             | Housing Material        | Storage Temperature Range | Weight              | Humidity | Ingress Protection |
|--------------------------------------------------------|-------------------------|---------------------------|---------------------|----------|--------------------|
| 5.1 L x 4.95 W x 1.7 D in<br>(129.6 x 125.8 x 43.1 mm) | UV-Resistant, Black ABS | -40°C to +85°C            | 1.96 lbs<br>31.9 oz | 95%      | IP67***            |

\*Measured on a 4x4 ft ground plane at the end of a cable. \*\*Consult Customer Service for other connector options. \*\*\*When properly installed on rooftop surface, according to PCTEL installation instructions

## 3947D GPS/Cellular/3G/2.4 GHz Combined Covert/Dash Antenna



The 3947D GPS, Quad Cellular, 3G & 2.4 GHz ISM Band antenna is an excellent choice for Telematics systems requiring dependable and highly accurate positioning data. It is also ideal for clear and consistent host-to-vehicle communications.

### Features

- GPS, Quad-band Cellular & 2.4 GHz band reception
- Semi-flexible for covert installations
- Excellent out-of-band signal rejection
- High gain active GPS antenna
- Easy-to-install



3947D

### STANDARD CONFIGURATION

| Model | Cable                     | Connector*             |
|-------|---------------------------|------------------------|
| 3947D | Two 9.8' (3 meters) RG174 | SMA Plug (both cables) |

### ELECTRICAL SPECIFICATIONS - RF ANTENNA

| Nominal Impedance | VSWR   | Maximum Power | Nominal Gain |
|-------------------|--------|---------------|--------------|
| 50 Ohm            | ≤1.5:1 | 10 watts      | 2 dBi        |

### ELECTRICAL SPECIFICATIONS - GPS ANTENNA

| Frequency Range | Nominal Gain | Noise Figure (typical) | Polarization        | VSWR   |
|-----------------|--------------|------------------------|---------------------|--------|
| 1575.42 MHz     | 28 dB        | 1.5 dB                 | Right Hand Circular | ≤1.5:1 |

### ELECTRICAL SPECIFICATIONS - GPS ANTENNA

| Voltage   | Current Draw  | Nominal Impedance |
|-----------|---------------|-------------------|
| 3 – 5 VDC | 9.0 mA @ 3.5V | 50 ohms           |

### MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

| Dimensions                                         | Housing Material             | Temperature Range        |
|----------------------------------------------------|------------------------------|--------------------------|
| 5.2 L x 2.3 H x .3 D in<br>(132.1 x 58.9 x 8.5 mm) | Lexan® covered urethane foam | -40°C to +85°C operating |

\* Consult Customer Service for other connector options.

## GPS/GSM Multi-Band Through Hole Low-Profile Antenna



PCTEL's GPSSMSMA multi-band GPS antenna provides omnidirectional coverage of GSM frequencies from 824-896 MHz and 1710-1990 MHz plus GPS L1 vehicle tracking support. This low-profile antenna is designed for permanent roof top vehicular installations. It is ideal for mass transit applications requiring voice coverage and GPS tracking to improve operational dispatch and schedule maintenance efficiencies. The antenna's very low-profile design minimizes its exposure to theft or vandalism.

### Features

- Extremely low-profile housing for minimum visibility and maximum overhead clearance
- Multi-band frequency coverage and GPS support minimize the number of antennas required on the vehicle for easier, more cost effective installations
- UV stability for long lasting outdoor operation
- Adhesive VHB tape layer supports permanent installation and provides added protection to the vehicle's surface
- Protective cable sheath for easier installation



GPSSMSMA

### STANDARD CONFIGURATION

| Model    | Cable                                                | Connector*                       | Mount                                                                                                                                                              |
|----------|------------------------------------------------------|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GPSSMSMA | 16.4 feet RG-174/U (GPS)<br>16.4 feet RG-174/U (GSM) | SMA Plug (GPS)<br>SMA Plug (GSM) | 1/2-inch through hole mount<br>Mount assembly includes flat adapter shim for installations on existing larger hole diameters.<br>Adhesive VHB tape layer included. |

### ELECTRICAL SPECIFICATIONS - RF ANTENNA

| Impedance | Frequency Range         | Gain** | Maximum Power | Polarization     | VSWR    |
|-----------|-------------------------|--------|---------------|------------------|---------|
| 50 ohms   | 824-896 / 1710-1990 MHz | 2 dBi  | 8 watts       | Linear, vertical | < 2.5:1 |

### ELECTRICAL SPECIFICATIONS - GPS ANTENNA

| Frequency Range     | LNA Gain  | Polarization              | VSWR    |
|---------------------|-----------|---------------------------|---------|
| L1: 1575.42 ± 3 MHz | 25 ± 3 dB | Right hand circular (GPS) | < 1.5:1 |

### ELECTRICAL SPECIFICATIONS - GPS ANTENNA, continued

| Current Draw    | Noise Figure       | Input Impedance |
|-----------------|--------------------|-----------------|
| < 15 mA @ 3-5 V | < 2.0 dB (typical) | 50 ohms         |

### MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

| Dimensions                         | Weight                | Housing Material         | Temperature Range |
|------------------------------------|-----------------------|--------------------------|-------------------|
| 3.1 OD x 0.59 H in<br>(8 x 1.5 cm) | 0.45 lbs<br>(.204 kg) | Black, UV-stable plastic | -40°C to +85°C    |

\* Consult Customer Service for other connector options.

\*\* Gain will vary depending on frequency and method of installation. Measured on a 9-inch ground plane, not including cable attenuation.

## GPS/GSM Multi-Band Magnetic Low-Profile Antenna



The GPSSGSMMSMA multi-band GPS magnetic mount antenna provides omnidirectional coverage of GSM frequencies from 824-896 MHz and 1710-1990 MHz plus GPS L1 vehicle tracking support. This low-profile antenna features a magnetic mount base that makes installation and removal quick and simple. The assembly includes an adhesive VHB tape layer for more permanent installations. Its low-profile housing reduces antenna exposure to theft or vandalism. It is ideal for vehicular applications requiring voice coverage and asset tracking support to improve operational dispatch efficiencies. Applications include commercial delivery, maintenance, public safety or mass transit vehicles.



GPSSGSMMSMA

### Features

- Extremely compact low-profile housing for minimum visibility and maximum overhead clearance
- Multi-band frequency coverage and GPS tracking support minimize the number of antennas required on the vehicle for more cost effective installations
- UV stability for long lasting outdoor applications
- Adhesive VHB tape layer for more permanent installations, if required; tape provides added protection to the vehicle's surface

### STANDARD CONFIGURATION

| Model       | Cable                                                | Connector*                       | Mount                                                  |
|-------------|------------------------------------------------------|----------------------------------|--------------------------------------------------------|
| GPSSGSMMSMA | 16.4 feet RG-174/U (GPS)<br>16.4 feet RG-174/U (GSM) | Male SMA (GPS)<br>Male SMA (GSM) | Magnetic mounting<br>Adhesive VHB tape layer included. |

### ELECTRICAL SPECIFICATIONS - RF ANTENNA

| Operating Frequencies        | Maximum Gain** | Polarization             | VSWR          |
|------------------------------|----------------|--------------------------|---------------|
| 824-896 MHz<br>1710-1990 MHz | 2 dBi          | Linear (GSM frequencies) | < 2.5:1 (GSM) |

### ELECTRICAL SPECIFICATIONS - GPS ANTENNA

| Frequency Band      | Current Draw   | LNA Gain  | Polarization              | VSWR          | Maximum Power (GSM) | Input Impedance |
|---------------------|----------------|-----------|---------------------------|---------------|---------------------|-----------------|
| L1: 1575.42 ± 3 MHz | < 15 mA @ 3-5V | 25 ± 3 dB | Right hand circular (GPS) | < 1.5:1 (GPS) | 8 Watts             | 50 Ohms         |

### MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

| Dimensions                                 | Weight               | Temperature Range | Magnet Pull Force | Housing Material           |
|--------------------------------------------|----------------------|-------------------|-------------------|----------------------------|
| 2.8 x 2.4 x 0.5 in<br>(7.2 x 6.2 x 1.4 cm) | 0.4 lbs<br>(.181 kg) | -40°C to +85°C    | 2.8 lbf, minimum  | Black UV-resistant plastic |

\* Consult Customer Service for other connector options.

\*\* Gain will vary depending on frequency and method of installation. Measured on a 9-inch ground plane, not including cable attenuation. The top of the antenna housing must be directed toward the sky, as indicated by the "AIRWARD" on the antenna radome.

## Mobile Mount, Low-Profile Active, 28 dB GPS Antenna



PCTEL's GPS active NMO mount antenna provides superior performance with the industry's smallest NMO mountable footprint. The GPS-NMO antenna features a custom tuned frequency ceramic patch element, 15 KV ESD circuit protection, a two stage low noise amplifier and a SAW filter, that provides excellent out-of-band signal rejection performance and consistently clear signal while minimizing loss-of-lock.

The GPS-NMO features an attractive, compact housing environmentally tested for both fixed or mobile applications. Its innovative tab design supports higher reliability and repeatable performance at GPS frequencies than button pin designs can provide. The product is available in black or white housing options to suit a wide variety of installation applications.



GPS-NMO

GPS-NMO-W  
(White)

### Features

- Attractive, low-profile design for maximum overhead clearance
- 2.7-5 Volt operation
- 15 KV ESD circuit protection
- Mates with all 1-1/8"-18 thread NMO mounts, including 3/4" mounts

### STANDARD CONFIGURATION

| Model                | Mount                                                                  | Housing Color  |
|----------------------|------------------------------------------------------------------------|----------------|
| GPS-NMO<br>GPS-NMO-W | Compatible with all 1-1/8"-18 thread NMO mounts, including 3/4" mounts | Black<br>White |

### ELECTRICAL SPECIFICATIONS - GPS ANTENNA

| Frequency Band          | LNA Gain                         | Element Gain | Noise Figure     | Out of Band Rejection                                                                   |
|-------------------------|----------------------------------|--------------|------------------|-----------------------------------------------------------------------------------------|
| 1575.42MHz $\pm$ 10 MHz | @ 3.3VDC: 28 dB<br>@ 5VDC: 30 dB | 1 dBic       | 1.5 dB (typical) | $\pm$ 15 MHz: 5 dB<br>$\pm$ 20 MHz: 10 dB<br>$\pm$ 30 MHz: 32 dB<br>$\pm$ 40 MHz: 40 dB |

### ELECTRICAL SPECIFICATIONS - GPS ANTENNA, continued

| Current Draw              | DC Voltage  | Nominal Impedance | Polarization        |
|---------------------------|-------------|-------------------|---------------------|
| 9 mA @ 3.3V<br>15 mA @ 5V | 2.7 - 5 VDC | 50 ohms           | Right hand circular |

### MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

| Dimensions                        | Weight                | Shock                                | Vibration                                             | Temperature              | Humidity                 |
|-----------------------------------|-----------------------|--------------------------------------|-------------------------------------------------------|--------------------------|--------------------------|
| 1.5 OD x 1.8 H in<br>(38 x 46 mm) | 0.15 lbs<br>(0.07 kg) | Vertical axis 50G,<br>Other axes 30G | 3 axis, sweep = 60 min<br>3 - 500 Hz random vibration | -40°C to +85°C operating | 95% max (non condensing) |



## Multiple Mount GPS L1 GPS Antenna

The AGPS26 global positioning system (GPS) antenna features an electrically shielded LNA PCB assembly that is permanently encased in a UV-stable, black radome. Providing 26 dB of gain and 3 to 5 Vdc operation, this active GPS antenna provides outstanding GPS support for many vehicle tracking applications. This magnetic mount antenna can be ordered with additional screw or tape mount hardware for maximum installation flexibility.



AGPS26MM

### Features

- Rugged, low-profile housing for minimum visibility
- Various mount options for maximum versatility. Magnetic mount standard. Screw or tape mount hardware optional.
- Wide variety of connector options provide greater flexibility and compatibility with most GPS systems

### STANDARD CONFIGURATION

| Model    | Cable            | Connector* | Mount  |
|----------|------------------|------------|--------|
| AGPS26MM | 17 feet RG-174/U | SMA Plug   | Magnet |

### ELECTRICAL SPECIFICATIONS

| Frequency Band      | Gain                                                                 | VSWR            | Nominal Impedance |
|---------------------|----------------------------------------------------------------------|-----------------|-------------------|
| 1575.42 ± 1.023 MHz | Typical at zenith: +5.0 dBic<br>(-1.0 dBic minimum at 10° elevation) | < 2.0:1 maximum | 50 ohms           |

### ELECTRICAL SPECIFICATIONS, continued

| Amplifier Gain | Polarization        | Out of Band Rejection                                                                                    |
|----------------|---------------------|----------------------------------------------------------------------------------------------------------|
| 26 dB          | Right hand circular | fo=1575.42 MHz<br>fo ± 20 MHz: 7 dB typical<br>fo ± 50 MHz: 20 dB typical<br>fo ± 100 MHz: 30 dB typical |

### ELECTRICAL SPECIFICATIONS, continued

| Noise Figure                     | Axial Ratio    | Current Draw                             | DC Voltage                      |
|----------------------------------|----------------|------------------------------------------|---------------------------------|
| 1.8 dB typical<br>2.2 dB maximum | 3.0 dB typical | 20 mA, maximum at 3-5 Vdc (9 mA typical) | 3-5 Vdc: 50 mV p-p ripple (max) |

### MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

| Dimensions                                          | Weight         | Housing Material              | Temperature Range | Humidity     |
|-----------------------------------------------------|----------------|-------------------------------|-------------------|--------------|
| 2 L x 1.77 W x 0.55 D in<br>(50.8 x 44.9 x 13.9 mm) | 4.09 ± 0.35 oz | Black, UV-stable plastic, ABS | -40°C to +85°C    | 10 to 95% RH |

\* Consult Customer Service for other connector options.