

## 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) | f <sub>0</sub> = 1586 MHz<br>f <sub>0</sub> ± 50 MHz: ≥ 60 dBc<br>f <sub>0</sub> ± 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).

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### 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.