



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) One-17 feet RG-174/U (GNSS)	SMA Plug (LTE) 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) One-17 feet RG-174/U (GNSS)	SMA Plug (LTE) 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) Two-17 feet Pro-Flex™ Plus 195 (802.11ac Wi-Fi) One-17 feet RG-174/U (GNSS)	SMA Plug (LTE) Reverse Polarity SMA Plug (Wi-Fi) 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) Two-17 feet Pro-Flex™ Plus 195 (802.11ac Wi-Fi) One-17 feet RG-174/U (GNSS)	SMA Plug (LTE) Reverse Polarity SMA Plug (Wi-Fi) 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) Three-17 feet Pro-Flex™ Plus 195 (802.11ac Wi-Fi) One-17 feet RG-174/U (GNSS)	SMA Plug (LTE) Reverse Polarity SMA Plug (Wi-Fi) 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) Three-17 feet Pro-Flex™ Plus 195 (802.11ac Wi-Fi) One-17 feet RG-174/U (GNSS)	SMA Plug (LTE) Reverse Polarity SMA Plug (Wi-Fi) 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.

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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) Wi-Fi Elements (2 each)	698-960 MHz/1710-2700 MHz 2.4-2.5 GHz/4.9-5.9 GHz	Vertical, linear	50 ohms	2.5 dBi 3-4 dBi	50 watts	< 2.0:1
GLHPDLTEMIMO-LTW	4G LTE Elements (2 each) Wi-Fi Elements (2 each)	698-960 MHz/1710-2700 MHz 2.4-2.5 GHz/4.9-5.9 GHz	Vertical, linear	50 ohms	2.5 dBi 3-4 dBi	50 watts	< 2.0:1
GLHPDM3-LTB	4G LTE Elements (2 each), Wi-Fi Elements (3 each)	698-960 MHz/1710-2700 MHz 2.4-2.5 GHz/4.9-5.9 GHz	Vertical, linear	50 ohms	2.5 dBi 3-4 dBi	50 watts	< 2.0:1
GLHPDM3-LTW	4G LTE Elements (2 each), Wi-Fi Elements (3 each)	698-960 MHz/1710-2700 MHz 2.4-2.5 GHz/4.9-5.9 GHz	Vertical, linear	50 ohms	2.5 dBi 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: 26 dB (typical)	50 ohms	2.0:1 (maximum)	25 mA (typical)	2.8-6.0 V (operating) ≤ 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 (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.