

LTE MIMO, Dual 802.11n GPS Multiband Antenna

PCTEL's LTE MIMO antennas provide optimal 4G LTE and dual-band 802.11n Wi-Fi coverage in a single 5-port, low profile housing. The antennas also incorporate a high rejection GPS LNA assembly for optimal performance and support of carrier voice and data networks.

Features

- No tune, multiband coverage: dual 4G LTE, dual 802.11n Wi-Fi and GPS L1 frequencies
- Metal 1-inch stud mount with slotted jam nut provides single cable exit for easier installation and/or antenna replacement
- 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



GPSHPDLTEMIMO-SF

GPS Antenna Specs

| |
|-----------------------------------------------------------------------------|
| Frequency Band: 1575.42 MHz (GPS L1) |
| Amplifier Gain: 26 dB \pm 3 dBic |
| Nominal Impedance: 50 ohms |
| Output VSWR: 1.5:1 typical |
| DC Current: 20 mA nominal; < 30 mA @ -40° C to +85° C |
| DC Voltage: 3-12 V |
| Noise Figure: 1.8 dB typical |
| Filtering: > 40 dB rejection @ \pm 50 MHz from center frequency |

Electrical Specifications - RF Antennas

| Model | Elements | Operating Frequencies | Polarization | Nominal Impedance | Gain* (typical) | Maximum Power | VSWR** |
|------------------|-------------------------------------------|------------------------------|---------------------|-------------------|-----------------|---------------|---------|
| GPSHPDLTEMIMO-SF | 4G LTE Elements (2 each) | 698-960 MHz 1710-2700 MHz | Vertical, linear | 50 ohms | 2.5 dBi | 50 watts | < 2.0:1 |
| | 802.11n Dual-Band Wi-Fi Elements (2 each) | 2.4-2.5 GHz 4.9-5.9 GHz | | | 3-4 dBi | | |
| GPSHPDLTE-SF | 4G LTE Elements (2 each) | 698-960 MHz 1710-2700 MHz | Vertical, linear | 50 ohms | 2.5 dBi | 50 watts | < 2.0:1 |
| GPSHPDLTEWIFI-SF | 802.11n Dual-Band Wi-Fi Elements (2 each) | 2.4-2.5 GHz 4.9-5.9 GHz | Vertical, linear | 50 ohms | 3-4 dBi | 50 watts | < 2.0:1 |

Mechanical Specifications

| Model | Dimensions (OD x H) | Coax | Connectors | Gasket Design & Construction |
|------------------|-------------------------------|--------------------------------------------------------------------------------------------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GPSHPDLTEMIMO-SF | 5.2 x 3.4 in (132 x 94 mm) | Two-17 feet Pro-Flex Plus 195 (4G LTE Elements) | MSMA (LTE) | Countour 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. |
| | | Two-17 feet Pro-Flex Plus 195 (802.11n Wi-Fi Elements) | RP-MSMA (Wi-Fi) | |
| | | One-17 feet RG-174/U (GPS L1) | MSMA (GPS) | |
| GPSHPDLTE-SF | 5.2 x 3.4 in (132 x 94 mm) | Two-17 feet Pro-Flex Plus 195 (4G LTE Elements) | MSMA (LTE) | |
| | | One-17 feet RG-174/U (GPS L1) | MSMA (GPS) | |
| GPSHPDLTEWIFI-SF | 5.2 x 3.4 in (132 x 94 mm) | Two-17 feet Pro-Flex Plus 195 (802.11n Wi-Fi Elements) One-17 feet RG-174/U (GPS L1) | RP-MSMA (Wi-Fi) MSMA (GPS) | |

Mechanical & Environmental Specifications

| Radome & Baseplate Construction | Mounting Method | Operating/Storage Temperature | Ingress Protection |
|-----------------------------------|----------------------------------------------------------------|-------------------------------|--------------------|
| UV stable CYCOLOY C6200 Radome | 1-inch hole, 3/4-inch long (.75") zinc stud mount with jam nut | -40° C to +85° C | IP67*** |

* 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.

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