LTE MIMO, 802.11n High Rejection GNSS GPS/GLONASS Multiband Antennas

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

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

Features

- No tune, multiband coverage: dual 4G LTE, dual or triple 802.11n Wi-Fi, GPS L1/Galileo, and GLONASS 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

Low Noise Amplifier Specifications

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

GNSS Antenna Element Specifications

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

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

Electrical Specifications - RF Antennas

Model	Elements	Operating Frequencies	Polarization	Nominal Impedance	Gain* (typical)	Maximum Power	VSWR**
GLHPDLTEMIMO-SF BGLHPDLTEMIMO-SF	4 G LTE Elements (2 each) 802.11n Dual-Band Wi-Fi Elements (2 each)	698-960 MHz 1710-2170 MHz 2300-2700 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
GLHPDLTE-SF BGLHPDLTE-SF	4 G LTE Elements (2 each)	698-960 MHz 1710-2170 MHz 2300-2700 MHz	Vertical, linear	50 ohms	2.5 dBi	50 watts	< 2.0:1
GLHPDM3-SF BGLHPDM3-SF	4 G LTE Elements (2 each) 802.11n Dual-Band Wi-Fi Elements (3 each)	698-960 MHz 1710-2170 MHz 2300-2700 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

Mechanical Specifications

Model	Dimensions (OD x H)	Coax	Connectors***	Gasket Design & Construction
GLHPDLTEMIMO-SF BGLHPDLTEMIMO-SF	5.1 x 3.6 in (130 x 92 mm)	Two-17 feet Pro-Flex Plus 195 (4G LTE Elements) Two-17 feet Pro-Flex Plus 195 (802.11n Wi-Fi Elements) One-17 feet RG-174/U (GNSS Element)	SMA Plug (LTE) Reverse Polarity SMA Plug (Wi-Fi) SMA Plug (GNSS)	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.
GLHPDLTE-SF BGLHPDLTE-SF	5.1 x 3.6 in (130 x 92 mm)	Two-17 feet Pro-Flex Plus 195 (4G LTE Elements) One-17 feet RG-174/U (GNSS Element)	MSMA (LTE) MSMA (GNSS)	
GLHPDM3-SF BGLHPDM3-SF	5.1 x 3.6 in (130 x 92 mm)	Two-17 feet Pro-Flex Plus 195 (4G LTE Elements) Three-17 feet Pro-Flex Plus 195 (802.11n Wi-Fi Elements) One-17 feet RG-174/U (GNSS Element)	SMA Plug (LTE) Reverse Polarity SMA Plug (Wi-Fi) SMA Plug (GNSS)	

Mechanical & Environmental Specifications

Part Number	Radome Color	Radome Construction	Mounting Method	Operating/Storage Temperature	Weight	Ingress Protection
GLHPDLTEMIMO-SF	White	UV Stable Rugged Thermoplastics	1-inch hole, 3/4-inch long (.75") zinc stud mount with jam nut	-40°C to +85°C		IP67
BGLHPDLTEMIMO-SF	Black					
GLHPDLTE-SF	White					
BGLHPDLTE-SF	Black					
GLHPDM3-SF	White					
BGLHPDM3-SF	Black					

* 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.
*** Consult Customer Service for other connector requirements.

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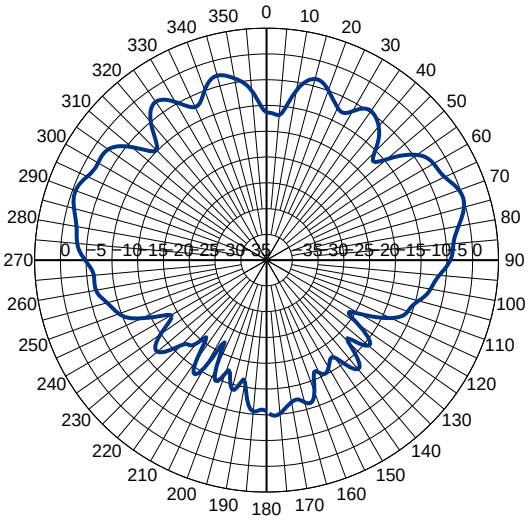
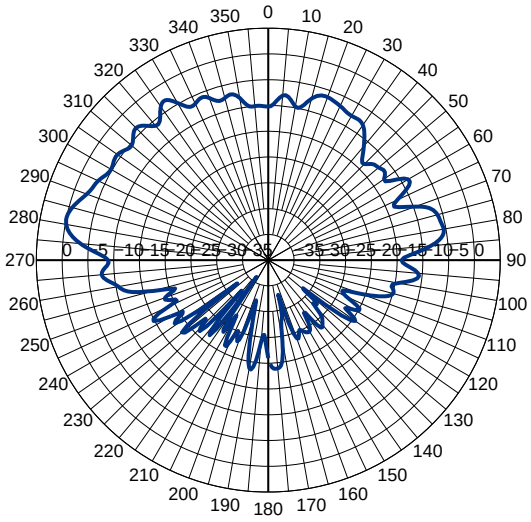
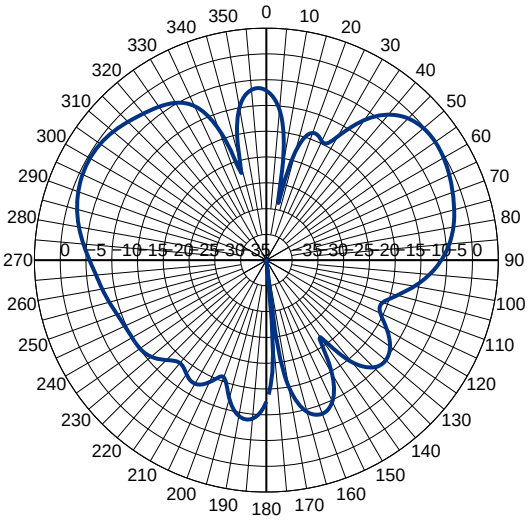
2.4GHz WiFi



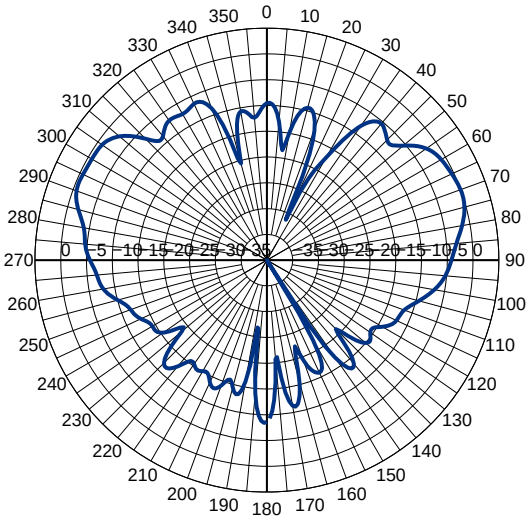
5GHz WiFi



Lowband Cellular/LTE



Highband Cellular/LTE



NOTE: Elevation Patterns are normalized to 0dB.