

Latest PCTEL 5G Solutions



5G New Radio (NR) technology has arrived, unlocking ultra-wide bands of traditional and millimeter wave (mmWave) spectrum for fixed and mobile wireless networks. With its high capacity and ultra-low latency, 5G enables new use cases, such as virtual reality, smart cities, machine learning, and advanced cyber-physical systems. The complex array of 5G technologies and deployment scenarios require advanced antenna technologies, sophisticated device design, and careful field testing to deliver return on investment for both network operators and enterprise users .

5G NR Network Testing— Test mmWave and Sub-6 GHz Spectrum



- Simultaneous mmWave and sub-6 GHz testing across multiple technologies
- Fast dual-port testing mode for 5G mmWave networks
- Simultaneous decoding of all Synchronization Signal Block (SSB) beams
- 64 beams on FR2 (mmWave) frequencies
- 8 beams on FR1 (sub-6 GHz) frequencies
- Support for 4G/5G dynamic spectrum sharing (DSS)

5G/CBRS Antennas—3.5 GHz 5G NR, LTE, Spectrum Sharing

PCTEL's antenna solutions offer a smooth transition to 5G. Featuring high performance coverage for sub-6 GHz 5G NR and CBRS bands, we offer solutions for fleet management, intelligent transportation, industrial IoT, in-building and enterprise wireless systems.



The VenU® Ultra-Flat Ceiling Mount CBRS PCTHP-CBRS-4-NFAntenna is a wideband/multi-band omni-directional antenna for indoor ceiling mount installations. The antenna is designed to operate within the frequency ranges of 3400 MHz to 4200 MHz, providing optimized pattern coverage for indoor network applications.



The VenU® Directional CBRS Panel FPMI34005-DP4MSMA Antenna is a compact, low profile directional panel antenna that operates at CBRS frequencies (3.3GHz to 4.2 GHz). The UV-protected radome is constructed from lightweight, durable plastic. This new antenna is ideal for indoor or outdoor installations supporting CBRS networks, including small cells and DAS.



The VenU® Dual-Polarized Directional Panel FP Series Antenna was designed to cover frequencies used in industrial wireless applications and to obtain maximum gain with an attractive, low profile package. These models provide efficient and stable performance across the 1.8GHz to 5.9 GHz band and can be mounted indoors or outdoors.

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The VenU[®] CBRS Heavy-Duty Omnidirectional Base Station BOA34006N omni-directional base station antennas support CBRS (Citizens Broadband Radio Service 3.4-3.8 GHz) frequencies, making them ideal for spectrum sharing applications. Their design utilizes a linear array, encapsulated in a heavy-duty fiberglass radome with a thick-walled mounting base for reliable, long term use. This rugged design withstands harsh environments, making the antennas ideal for small cell applications.



The Coach[™] II (GL9X1AX-SF, GL7X1AX-SF, GL4X4-SF-PLK)Dual Carrier GNSS Multi-Band Antenna (5G & 4G LTE with 802.11ax) supports the high speed requirements of complex RF communication systems used for Intelligent Transportation Systems (ITS), and IIoT applications. These antennas feature four 5G elements compatible with the world's leading multi-carrier cellular routers that support 600 MHz to 6 GHz frequencies. The platform also incorporates 802.11ax Wi-Fi MIMO connectivity, with four dual band 2.4/5 GHz Wi-Fi elements supporting DSRC 5.99 GHz applications. In addition, PCTEL's proprietary high-rejection multi-GNSS technology is included for high precision tracking and asset management.



The Coach[™] II GL125-DLTEMIMO-SM GNSS L1 L2 L5 Multi-Band (Dual-Port 4G LTE and 802.11ac MIMO) Antenna meets the stringent requirements of complex RF communication systems in rail transportation applications. This antenna features two diversity 4G LTE elements that facilitate the high speed data transmissions needed in dense RF environments used for Positive Train Control (PTC) networks. The platform also incorporates dual band 802.11ac Wi-Fi MIMO connectivity with two Wi-Fi elements. PCTEL's proprietary high-rejection, multi-constellation GNSS L1 L2 L5 technology is also included for high precision location tracking.



The Coach[™] GLHPDLTE-SF Series multi-band antenna feature two 5G elements compatible with the world's leading cellular routers that support 600 MHz to 6 GHz frequencies. The platform also incorporates 802.11ac Wi-Fi MIMO connectivity, with dual band 2.4/5 GHz Wi-Fi elements supporting DSRC 5.99 GHz applications. In addition, PCTEL's proprietary high-rejection multi GNSS technology is included for high precision tracking and asset management.



The Trooper[™] PCTHPDLTE-LT Dual 5G/LTE Multiband antenna platform supports the high speed requirements of complex RF communication systems used for ITS, and IIoT applications. Its compact footprint makes this antenna ideal for installation on surfaces with limited surface space, including leading public safety vehicle rooftops and Industrial IoT (IIoT) cabinet installations.



The Trooper[™] II GL9X1AX-TRB, GL9X1AX-TRW Slender Dual Carrier GNSS Multi-Band (5G & 4G LTE with 802.11ax) antenna platform supports the high speed requirements of complex RF communication systems used for Intelligent Transportation Systems (ITS), and Critical Communications applications. These antennas feature four 5G elements compatible with the world's leading multi-carrier cellular routers that support 600 MHz to 6 GHz frequencies. The platform also incorporates 802.11ax Wi-Fi MIMO connectivity, with four dual band 2.4/5 GHz Wi-Fi elements supporting DSRC 5.99 GHz applications. In addition, PCTEL's proprietary high-rejection multi-GNSS technology is included for high precision tracking and asset management.



The Trooper[™] GLHPDLTEMIMO-LT Multi-Band LTE MIMO & 802.11ac Antennas with High Rejection GPS/GLONASS antenna platform supports the high speed requirements of complex RF communication systems used for Intelligent Transportation Systems (ITS), and IIoT applications. Its compact footprint makes this antenna ideal for installation on surfaces with limited surface space, including leading public safety vehicle rooftops and Industrial IoT (IIoT) cabinet installations. These antennas feature two 5G elements compatible with the world's leading cellular routers supporting 600 MHz to 6 GHz frequencies. In addition, PCTEL's proprietary high-rejection multi GNSS technology is included for high precision tracking and asset management.



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. Multiband versions are also available. All models feature an attractive, compact housing versions 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).