



# INDUSTRIAL WIRELESS ANTENNAS AND SITE SOLUTIONS

## OUR OFFERING

- An extensive portfolio of products for industrial wireless applications
- Rugged directional and omnidirectional antennas for harsh environments including high vibration and extreme temperatures
- Full line of wireless connectivity solutions including cable assemblies, enclosures, and surge protection
- Custom engineered antenna solutions for wireless sensor, gateway, and access point housings

## OUR CAPABILITIES

- Manufacturing facilities in the USA and Asia
- Top of the line SATIMO SG 24 near-field antenna test ranges with anechoic chambers
- High-fidelity 3D electromagnetic simulation and mechanical design software tools
- In-house environmental test facilities
- Custom design and project management services



## APPLICATIONS

- Machine-to-machine (M2M)
- Smart Grid
- Utilities
- RFID
- Process control and automation
- Remote monitoring
- SCADA (Supervisory Control and Data Acquisition)
- Oil and gas exploration

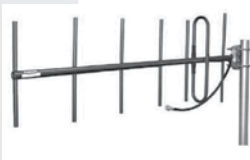


## PRODUCT PLATFORMS



### OMNIDIRECTIONAL ANTENNAS

- Multiple form factors
- Superior RF/electrical performance
- Robust mounting
- Horizontal polarization options
- Frequency covered range from 150 MHz to 6 GHz



### YAGI ANTENNAS

- Manufactured from aircraft quality aluminum for optimal strength
- Anodized or powder-coated for corrosion resistance
- Deployed in the harshest environments
- Frequencies covered range from 130 MHz to 960 MHz



### FLAT PANEL ANTENNAS

- Wideband and multi-band
- Rugged mounting solutions
- MIMO model options
- Various gain models



### LTE/Wi-Fi/GNSS ANTENNAS

- Optimal 4G LTE and dual-band 802.11ac Wi-Fi coverage
- High rejection GPS technology for voice and data
- Low profile, small form factor
- IP67 compliant



### FIXED MOUNT TELEMETRY ANTENNAS

- Low profile
- Surface mounting
- IP67 rated options
- Multi-band options

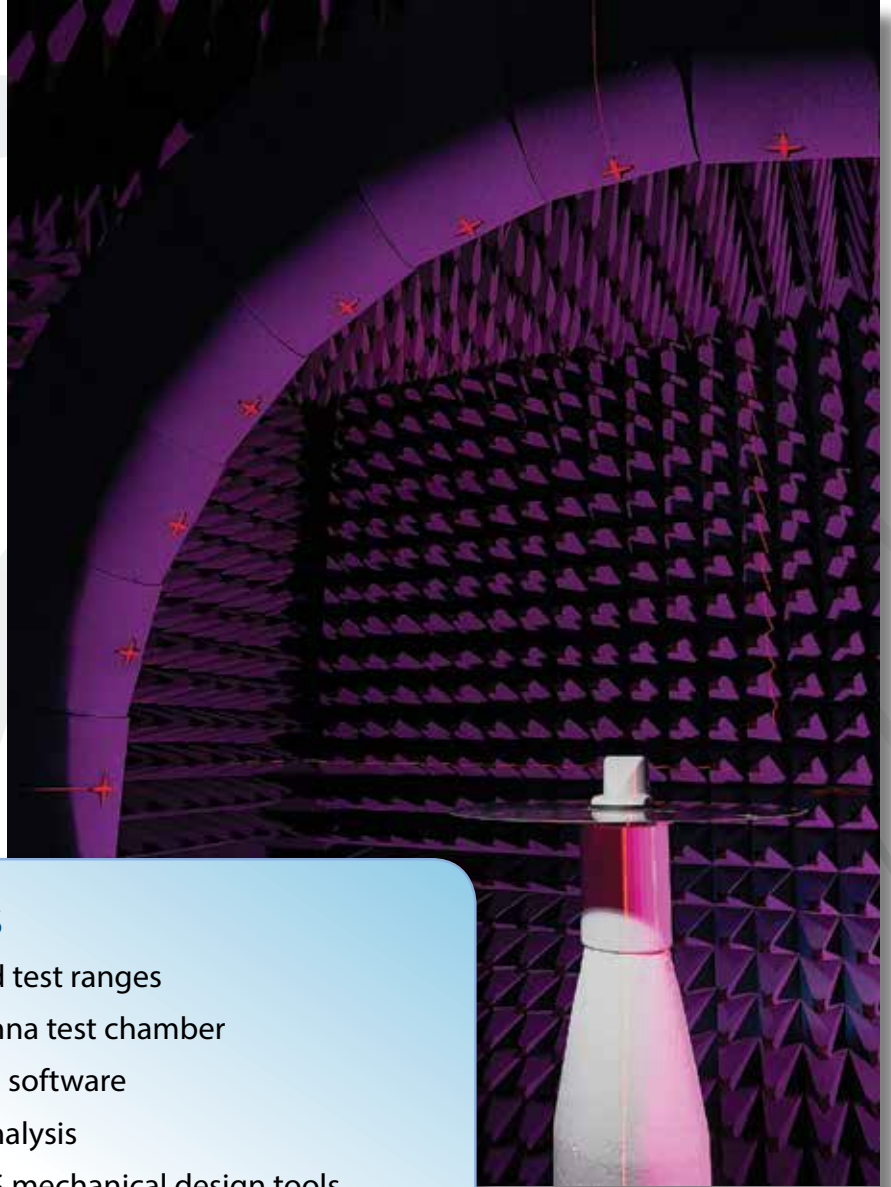


### GPS TIMING ANTENNAS

- High rejection GPS timing antennas
- Designed for use in congested sites
- Equipped with high rejection narrow-band filtering to mitigate interference
- Provides 65 dB rejection of frequencies adjacent to L1 GPS

## DESIGN

PCTEL takes a system performance approach to antenna and radio design. We work with you to understand the critical antenna characteristics that will drive total system performance. Our engineers have access to fully equipped, state-of-the-art design facilities in Bloomingdale, IL, USA and Beijing, China. We use a Stage-Gate development model with dedicated project management support. We also offer rapid design prototyping and testing in-house, so projects can proceed on our customers' schedules. Our highly efficient design process results in custom integral solutions that meet your platform's specific needs.



### IN-HOUSE DESIGN TOOLS

- Two Satimo SG 24 near-field test ranges
- ETS-Lindgren tapered antenna test chamber
- CST and IE3D E-Field design software
- Microwave Office® circuit analysis
- Inventor® and SOLIDWORKS mechanical design tools
- In-house environmental test lab
- Fortus 3D printing / radome prototyping
- FARO® Edge laser scanner for highly precise measurements
- Mold-Man™ 8000 molding machine
- Manncorp™ SMT line

# MANUFACTURING AND SUPPORT



PCTEL provides manufacturing, supply chain integration, and post-sales support. Our team can provide all the manufacturing and support you need—or integrate our processes smoothly with contract manufacturers to ensure quality control and timely delivery. We have a globally distributed workforce, with manufacturing and design facilities in the United States and China.

## FACILITIES AND PROCESSES

- 4,600 m<sup>2</sup> (50,000 sq. ft) factory in Bloomingdale, IL, USA
- 4,600 m<sup>2</sup> (50,000 sq. ft.) factory in Tianjin, China
- Designated project and program managers
- LEAN manufacturing
- RMA automation and integration
- ISO9001: 2008 registered and ISO14001 ready
- Products are RoHS and REACH compliant