12700 Series, Airborne Antennas

PCTEL's 12700 series antennas are robust, rigorously tested and environmentally sealed units suitable for a wide variety of GPS applications, including vehicle tracking, marine and airborne navigation.

These antennas have been tested to five DO-160 environmental test requirements, including:

- Altitude. RTCA/DO-160E, Section 4.6.1, Category F2
- Temperature and Temperature Variation Test. RTCA/DO-160E, Sections 4 and 5, Categories F2 and A
- Humidity. RTCA/DO-160D, Section 6. Category C-External Humidity Environment.
- Mechanical Shock RTCA/DO-160E, Section 7.0, Category B, Operational
- Vibration Test. RTCA/DO-160E, Section 8.0, Curves C, L, M, and Y

They feature a sealed o-ring that protects them against severe environmental conditions for reliable, long-lasting performance. Their radome is constructed of high grade polymer resin for UV and abrasion resistance. They will resist all de-icing fluids, jet fuels, and standard cleaning solvents.



1270FW

STANDARD CONFIGURATION

Model	Mount	Connector	Housing Color
1270FW 1271FW 1273FW	Surface mount four hole pattern	TNC Female	White

ELECTRICAL SPECIFICATIONS - GNSS ANTENNA

Model	LNA Gain	Frequency Range	Element Gain	Polarization	Noise Figure	Current Draw
1270FW 1271FW 1273FW	26 dB @ 5 V Passive 35 dB @ 5 V	1575.42 ± 10 MHz (GPS L1)	+ 4.5 dBic nominal at zenith	Right hand circular	2.5 dB nominal	≤ 30 mA - ≤ 40 mA

ELECTRICAL SPECIFICATIONS - GNSS ANTENNA, continued

Model	DC Voltage	VSWR	Nominal Impedance	Polarization
1270FW 1271FW 1273FW	3-9 VDC (working voltage)	< 2.0:1	50 ohms	Right hand circular

MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

Model	Dimensions	Weight	Temperature Range	Humidity
1270FW 1271FW 1273FW	3.4" H x 2.2" W	3.6 oz nominal	-40°C to +85°C	95%