



8178D-HR Low-Profile, High Gain Antenna with High Rejection GNSS Technology

The 8178D-HR High Rejection, High Gain GPS/GLONASS Antenna is a dual-band antenna covering both GPS L1 and GLONASS L1 frequencies. PCTEL's proprietary filtering design allows wideband coverage while achieving superior out-of-band rejection. This antenna comes in an all-plastic, non-corrosive low-profile package for vehicle mounting or fixed installations. This antenna is ideal for any global GPS/GLONASS tracking or time synchronization application that requires an externally mounted antenna and an extended run of cable.

Features

- GPS L1 & GLONASS L1 frequencies
- Proprietary filtering design allows wideband coverage while achieving superior out-of-band rejection for all GNSS frequencies
- 40dB LNA gain
- Low noise figure < 2.0dB
- IP67, low-profile design**



8178D-HR

STANDARD CONFIGURATION

Model	Connector	Mount
8178D-HR	TNC Female	3/4-inch thru-hole or bracket mount*

ELECTRICAL SPECIFICATIONS - GNSS ANTENNA

Frequency Band	LNA Gain	Element Gain	Polarization	Out of Band Rejection
1565-1610 MHz	@ 3.0 VDC: 40 dB (typical)	2 dBic @ 90°	Right hand circular	f ₀ = 1586 MHz f ₀ ± 50 MHz: ≥ 60 dBc f ₀ ± 60 MHz: ≥ 70 dBc

ELECTRICAL SPECIFICATIONS - GNSS ANTENNA, continued

Current Draw	DC Voltage	Noise Figure	Nominal Impedance
< 28mA (typical)	2.8-6.0V (operating) ≤ 12.0V (survivability)	< 2.0 dB (typical)	50 ohms

MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

Dimensions	Weight	Housing Material	Shock	Vibration	Temperature Range	Ingress Protection
2.36 OD x 0.83 H in (60 x 21 mm)	0.1 lbs (50 g)	Black, Lexan EXL9330	Vertical axis 50G, other axes 30G	3 axis, sweep = 15 min 10 – 200 Hz log sweep: 3G	-40°C to +85°C operating	IP67**

* Order MMK1925 for compatible mounting.

** When installed according to the manufacturer's installation instructions.