



8171D-HR

8171D-HR Low Profile Tracking Antenna With High Rejection GNSS Technology

The 8171D-HR High Rejection 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.

Applications

- Fleet Management / Asset Tracking
- Public Safety Emergency Responders
- Positive Train Control (PTC) Rolling Stock
- Network Synchronization
- Agriculture
- Differential Correction

Features

- GPS L1 & GLONASS L1 Frequencies
- Industry Leading Out-of-Band Rejection
- 26dB LNA Gain
- Low Noise Figure < 2.0dB
- IP67, Low Profile Design

Low Noise Amplifier Specifications

Frequency Band: 1574MHz - 1610MHz
Amplifier Gain: @ 3.0VDC: 26dB (typical)
Noise Figure: < 2.0dB (typical)
Out-of-band Rejection: f0 = 1586MHz
f0 +/- 50MHz : ≥ 60dBc
f0 +/- 60MHz : ≥ 70dBc
DC Voltage: 2.8-6.0V (operating) ≤ 12.0V (survivability)
DC Current: < 25mA (typical)

RF/Electrical Specifications

Frequency Band	Nominal Gain	Polarization	Nominal Impedance
1574MHz - 1610MHz	2 dBic @ 90°	Right Hand Circular	50 Ohms

Mechanical Specifications

Antenna Dimensions (dia. x mount height)	Weight	Shock	Vibration
2.36" x 0.83" (60 x 21 mm)	0.1 lbs (50 g)	Vertical axis 50G, other axes 30G	3 axis, sweep = 15 min 10 - 200 Hz log sweep: 3G
Radome Material	Connector	Mounting Method	
GE Lexan EXL9330	TNC Female	¾" thru-hole or bracket mount*	

Environmental Specifications

Temperature Range	Ingress Protection
-40°C to +85°C operating	IP67*

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

* Order MMK1925 for compatible mounting