



8178D-HR-DH-W

## 8178D-HR-DH-W Time Sync, High Gain Antenna With SkyLink™ High Rejection Technology

PCTEL's GPS/GLONASS High Rejection, High Gain Time Sync Antenna is a dual-band antenna covering both GPS L1 and GLONASS L1 frequencies. PCTEL's proprietary SkyLink™ filtering design allows wideband coverage while achieving superior out-of-band rejection. This antenna comes in a small, conical form factor to minimize perching and provide runoff. The 8178D-HR-DH-W is equipped with a TNC female connector and is ideal for any global GPS/GLONASS time synchronization application that requires an externally mounted antenna.

### Features

- GPS L1 & GLONASS L1 Frequencies
- Industry Leading SkyLink™ Out-of-Band Rejection
- 40 dB LNA Gain
- Low Noise Figure < 2.0 dB
- Conical radome sheds water, ice, and minimizes bird perching

### Applications

- Carrier Network Timing / Small Cell
- Utility Electric Grid Synchronization
- Positive Train Control (PTC) Networks
- Broadcast Digital TV Networks
- Public Safety Communications
- Banking / Financial Time Stamping
- Seismic Detection

### Low Noise Amplifier Specifications

<b>Frequency Band:</b> 1574-1610 MHz
<b>Amplifier Gain:</b> 40 dB +/- 4dB
<b>Noise Figure:</b> < 2.0 dB (typical)
<b>Out-of-band Rejection:</b> f0 = 1586MHz f0 ± 50MHz : ≥ 60dBc f0 ± 60MHz : ≥ 70dBc
<b>DC Voltage:</b> 2.8-6.0 V (operating) ≤ 12.0 V (survivability)
<b>DC Current:</b> < 25 mA (typical)

### RF/Electrical Specifications

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

### Mechanical Specifications

Dimensions	Weight	Shock	Vibration
2.36" x 1.73" (60 x 44 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	3/4" thru-hole or bracket mount*	

### Environmental Specifications

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



\* Order MMK1925 for compatible mounting.  
\*\* When installed according to the manufacturer's Installation instructions.