3978D High Gain Permanent Mount GPS Antenna

The 3978D high gain permanent mount GPS Antenna provides 40 dB gain and great high out-of-band rejection performance and is the optimum choice for GPS Tracking and Timing applications with long cable runs and stand alone GPS applications. It features a precision tuned custom ceramic patch element for maximum signal reception, 15 KV ESD circuit protection, a very low noise (0.5 dB) 3 stage LNA circuit and a SAW filter. This enables the 3978D to provide a reliable and clear GPS signal while minimizing loss-of-lock, even when conditions are less than ideal. Available in an all-plastic, non-corrosive low profile package for vehicle mounting.

Features

- Weather proof, all-plastic, non-corrosive, low profile enclosure
- ¾ inch thru-hole or bracket mount
- Voltage range: 2.7 to 5.5 V
- High gain: 40 dB (typical)
- Low noise figure 0.5dB

RF/Electrical Specifications

Center Frequency	Nominal Gain	Polarization	Current Draw
1575.42 MHz ± 10 MHz	3 dBic @ 90° -2 dBic @ 20°	Right Hand Circular	15 mA @ 5.5 VDC

Mechanical Specifications

Antenna Dimensions (diameter x height)	Weight	Shock	Vibration
2.36” x .83” (60 x 21 mm)	.11 lbs (50 g)	Vertical axis 50G, other axes 30G	3 axis, sweep = 15 min 10 – 200 Hz log sweep: 3G

Housing	Connector	Mounting Method
GE Lexan EXL9330	TNC jack	¾” thru-hole or bracket mount*

Environmental Specifications

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

Available Models

Part Number	Description
3978D	Black radome
3978D-W	White radome

Low Noise Amplifier Specifications

Nominal Gain: 40 dB
Noise Figure: 0.5 dB (typical)
Out-of-Band Signal Rejection: > 35dB @ +/- 40 MHz
Voltage: 2.7-5.5 VDC
ESD Circuit Protection: 15K volts

***Order MMK1925 bracket for compatible mounting**