

3997D-HR Low Profile, High Rejection Surface Mount GPS Antenna



The 3997D-HR surface mount GPS Antenna provides high performance and high out-of-band rejection in a very small form factor. It features a custom designed ceramic patch element that minimizes detuning effects caused by adjacent objects. This element, along with a low noise amplifier and 2 dual SAW filters, enables the 3997D-HR to provide a consistent, clear signal while minimizing loss-of-lock when GPS conditions are less than ideal. The 3997D-HR is housed in a very compact all-plastic, non-corrosive low profile package. The 3997D-HR is ideal for permanent installations in asset tracking and timing synchronization where performance and size are critical factors.



3997D-HR

Features

- Weather proof, non-corrosive, GE Lexan EXL9330 enclosure
- Extremely low in-vehicle connector profile
- Voltage range: 2.7 to 5.5 V
- ESD Protection: >15 kV
- High out-of-band signal rejection

STANDARD CONFIGURATION

Model	Connector	Mount
3997D-HR	MCX Jack	4 x 4-40 screw mounting holes

ELECTRICAL SPECIFICATIONS - GPS ANTENNA

Frequency Band	Nominal Gain	Polarization	Current Draw
1575.42 MHz \pm 10 MHz	3 dBic @ 90° -2 dBic @ 20°	Right Hand Circular	22 mA @ 5V

ELECTRICAL SPECIFICATIONS - GPS ANTENNA, continued

Out of Band Rejection	Amplifier Gain	Nominal Impedance	Noise Figure	DC Voltage	VSWR
\geq 55dB @ 1559MHz \geq 60dB @ 1625MHz	28dB +/- 3dB	50 ohm	3.9 dB (typical)	2.7-5.5 VDC (Internally Regulated)	< 1.9:1

MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

Dimensions	Weight	Shock	Vibration	Temperature Range	Humidity
1.7" x .53" (44.28 x 13.42 mm)	.057 lbs (26 g)	Vertical axis 50G, other axes 30G	3 axis, sweep = 15 min 10 – 200 Hz log sweep: 3G	-40°C to +85°C operating	95% max (non condensing)