

3997D Low Profile Surface Mount GPS Antenna



The 3997D surface mount GPS Antenna provides high performance 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 SAW filter, enables the 3997D to provide a consistent, clear signal while minimizing loss-of-lock when GPS conditions are less than ideal. The 3997D is housed in a very compact all-plastic, non-corrosive low profile package. The 3997D is ideal for permanent installations in asset tracking and timing synchronization where performance and size are critical factors.

Features

- Weather proof, non-corrosive, GE Lexan EXL9330 enclosure
- Extremely low in-vehicle connector profile
- Small mounting holes
- Voltage range: 2.7 to 5.5 V
- Low noise figure: 1.5 dB
- High out-of-band signal rejection



Low Noise Amplifier Specifications

Nominal Gain: @ 3.3VDC: 28 dB @ 5VDC: 30 dB
Nominal Impedance: 50 ohm
Noise Figure: 1.5 dB (typical)
Voltage: 2.7-5 VDC
Out-of-band Signal Rejection: > 20dB @ +/- 30 MHz

RF/Electrical Specifications

Center Frequency	Nominal Gain	Polarization	Current Draw
1575.42 MHz ± 10 MHz	3 dBic @ 90° -2 dBic @ 20°	Right Hand Circular	9 mA @ 3.3V 15 mA @ 5V

Mechanical Specifications

Antenna Dimensions (diameter x height)	Weight	Shock	Vibration
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

Housing	Connector	Mounting Method
GE Lexan EXL9330, black	MCX Jack	4 x 4-40 screw mounting holes

Environmental Specifications

Temperature Range	Humidity
-40°C to +85°C operating	95% max (non condensing)