



a time and place...
for everything

Wi-Sys Communications Inc.

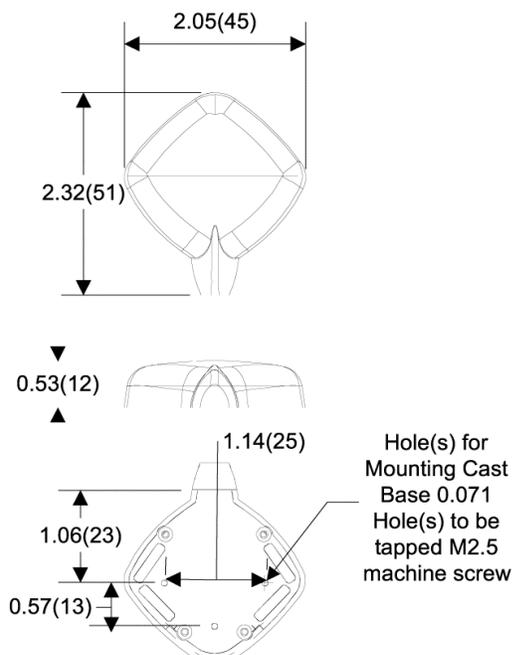
WS3910 High Gain, Low Noise GPS Antenna

Applications:

- ◆ Automotive Navigation
- ◆ Fleet Management & Telematics
- ◆ Marine Navigation
- ◆ Asset Tracking
- ◆ Military Radio and Vehicle
- ◆ Law Enforcement



The WS3910 GPS antenna is unparalleled in quality and performance. 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 WS3910 to provide a consistent, clear signal while minimizing loss-of-lock if GPS conditions are less than ideal. With both a magnetic base and threaded holes for mounting screws, the WS3910 GPS antenna is ideal for vehicle mounted AVL applications.



Features:

- ◆ High gain: 28 dB @ 3.3 V
- ◆ Extremely low noise figure: 0.8 dB
- ◆ Excellent out-of-band signal rejection
- ◆ Wide range of connector types available
- ◆ High performance LNA (patented)
- ◆ Wide voltage input range (2.7 – 5 VDC)
- ◆ Excellent low elevation angle coverage



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WS3910 GPS Antenna

Designed for maximum GPS performance, the WS3910 antenna's advanced circuitry integrates a SAW filter and low-noise amplifier to ensure a reliable and clear signal for the GPS receiver even in difficult conditions. Where other GPS antennas fail, the WS3910's superior out-of-band rejection and low noise characteristics can provide a reliable signal – which can be critical for improving acquisition times and minimizing outages

The Wi-Sys Antenna Family

WS3910: High gain, low noise GPS antenna

WS3914: Low current GPS antenna

WS3916: Low cost GPS antenna

WS3917: Low cost filtered GPS antenna

WS3940: Active GPS + Cellular Combined Glass mount/covert antenna

WS3942: Active GPS + Cellular Combined Magnetic mount antenna

WS3950/WS3960: High gain, low noise Embedded antenna

WS3954/WS3964: low current Embedded GPS antenna

WS3957/WS3967: low price filtered Embedded GPS antenna

WS3977: Through-hole Mount GPS Antenna

Technical Specifications

Environmental Specifications

- ◆ -40c to +80c operating (-45c to +80c storage)
- ◆ Humidity: 95% max (non condensing)

Mechanical

- ◆ 45mm x 51mm x 12mm
- ◆ 120g (4.2 oz)
- ◆ Attachment methods: Magnetic (5 lb lift-off force) or permanent (pre-threaded for 3x M2.5 screws)
- ◆ Shock: Vertical axis 50G, Other axes 30G
- ◆ Vibration: 3 axis, sweep = 15 min
10 – 200 Hz log sweep: 3G

Antenna Response

- ◆ Frequency: 1575.42 MHz
- ◆ Gain: @ 90° 3 dBic, @ 20° -2.0 dBic
- ◆ Polarization: Right Hand Circular
- ◆ Axial ratio: @ 90° 4 dB, @ 20° 6 dB

Electrical

- ◆ Voltage: 2.7 – 5 VDC
- ◆ Current: 7.5 mA @ 3.3VDC, 11.5 mA @ 5VDC
- ◆ Cable: 1.5 DS-QEHV Shikoku Cable Co. Ltd.
- ◆ Cable length: 3 Meters (standard), other lengths optional
- ◆ Cable loss: 1.3 dB/m typical
- ◆ Connector: SMA (standard)
SMB, SMC, MCX, BNC, TNC optional

LNA Specifications

- ◆ Frequency: 1572.5 – 1578 MHz
- ◆ Output Impedance: 50 Ohm
- ◆ VSWR: 1.5:1 max (at connector)
- ◆ Gain: @ 3.3VDC: 28 dB (typical)
@ 5VDC: 28.5 dB (typical)
- ◆ Noise figure: 0.8 dB
- ◆ Out-of-band rejection: + 15 MHz: 10 dB/- 15 MHz: 30 dB
+ 20 MHz: 20 dB/- 20 MHz: 30 dB
+ 40 MHz: 40 dB/- 40 MHz: 40 dB

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