



a time and place...
for everything

Wi-Sys Communications Inc.

WS3914 Very Low Current GPS Antenna

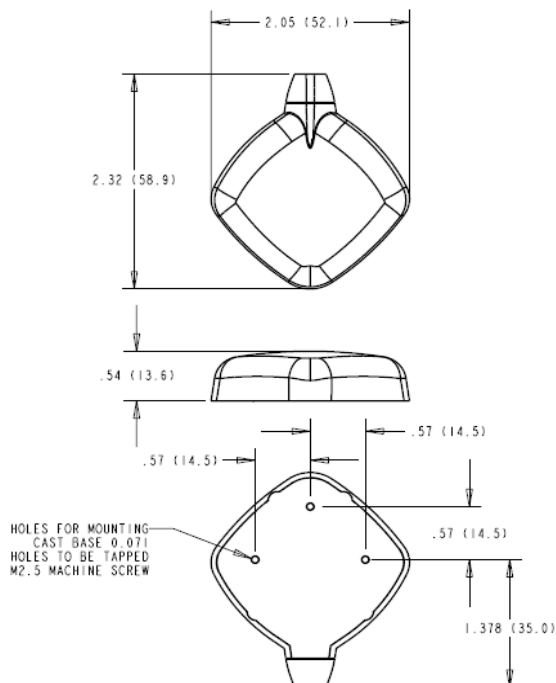
Applications:

- ◆ Personal Navigation Devices
- ◆ Automotive Navigation
- ◆ Military Radios and Manpacks
- ◆ Law Enforcement Radios
- ◆ Battery Powered Telematics & Asset Tracking



The WS3914 GPS antenna has the industry's lowest current specification. It operates on only 2 mA of current, setting a new standard. It features a patented very low noise LNA, a high rejection SAW filter and a perfectly tuned custom ceramic patch element that minimizes detuning effects caused by adjacent objects. The WS3914 provides the clearest GPS signal reception while minimizing loss-of-lock even in less than ideal conditions. Housed in a rugged weatherproof magnetic or screw mount enclosure, the WS3914 antenna is ideal for portable applications where low power operation is a necessity.

Mechanical Dimensions



Features:

- ◆ Extremely low current: 2 mA @ 2.7 VDC
- ◆ Very low noise figure: 1 dB
- ◆ Excellent out-of-band signal rejection
- ◆ High performance patented LNA
- ◆ Wide voltage input range (2.5 – 3.3V DC)
- ◆ Weather proof housing
- ◆ RoHS compliant
- ◆ NATO approved: NSN 5985-12-364-3842

Ordering Information:

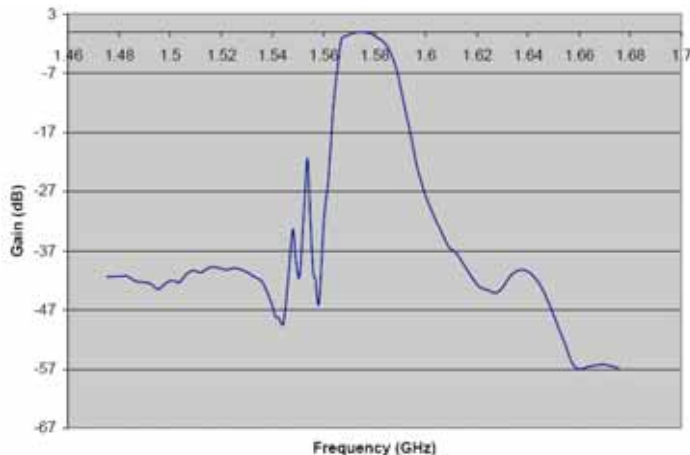
- ◆ **WS3914-3M-SMA:** 3 metre cable with a SMA male connector
- ◆ **WS3914-5M-SMA:** 5 metre cable with a SMA male connector



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Out-of-band Filter Rejection



Other Wi-Sys Magnet Mount Antenna

WS3910: High gain, low noise GPS antenna

WS3911-HR: Dual filter, very high-rejection GPS antenna

WS3915-HR: Very low current, dual filter high rejection GPS antenna

WS3917: Low cost, active, filtered GPS antenna

WS3942: Active, filtered GPS + Cellular combined antenna

WS3948: Active, filtered GPS + 2.4 GHz combined antenna

WS9010: LBand + GPS L1 antenna

Technical Specifications

Environmental Specifications

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

Mechanical

- ◆ 52.1 mm x 58.9 mm x 13.6 mm
- ◆ 120g - 3 metre cable, 130g - 5 metre cable
- ◆ Attachment methods: Magnetic (5 lb lift-off force) or permanent (pre-threaded for 3 x 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: 2.5 – 3.3 VDC
- ◆ Current: 2.0 mA @ 2.7VDC (typ.)
- ◆ Cable: 1.5 DS-QEHV Shikoku Cable Co. Ltd.
- ◆ Cable loss: 1.3 dB/m typical
- ◆ Cable Length: 3 metre and 5 metre standard, other lengths optional
- ◆ Connector: SMA male standard, other connectors optional

LNA Specifications

- ◆ Frequency: 1572.5 – 1578 MHz
- ◆ Output Impedance: 50 Ohm
- ◆ VSWR: 1.5:1 max (at connector)
- ◆ Gain: @ 3.3VDC: 18 dB (typ.)
- ◆ Noise figure: 1 dB (typ.)

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