



expanding the borders
of wireless systems

Wi-Sys Communications Inc.

WS3942 GPS+Cellular Combined Magnet-mount Antenna

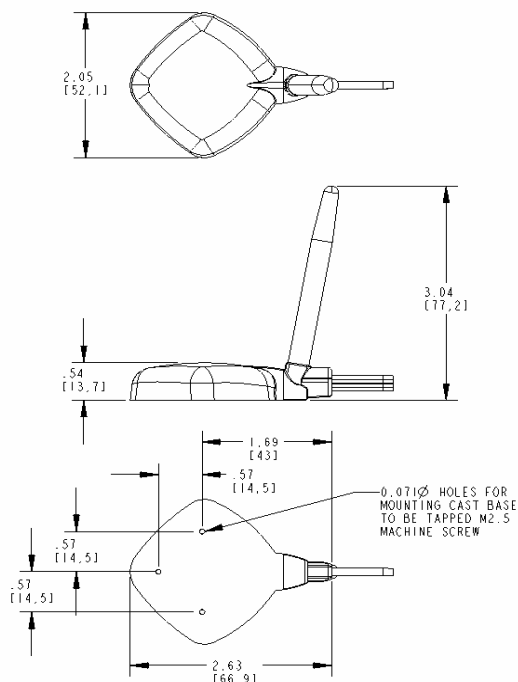
Applications:

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



Designed to be the best performing combined GPS + Cellular antenna for telematics applications in the business. The WS3942 is a waterproof, magnet mount antenna using an active GPS antenna plus quarter wave cell element to provide peak gain and performance in GPS and cellular reception with no compromise. It features an RF protected, high performance GPS LNA with a mid band SAW to reject extraneous signals. Two models are available, the WS3942-A, tuned to the North-American 824-894 MHz and 1850-1990 MHz Cellular bands, and the WS3942-E, tuned to the European 890-960 MHz and 1710-1880 MHz Cellular bands.

Dimensions



Features:

- ◆ Dual-band cellular reception
- ◆ Excellent out-of-band signal rejection
- ◆ Wide range of connector types available
- ◆ High gain active GPS antenna
- ◆ Competitively priced
- ◆ Magnet Mount

Ordering information:

- ◆ **WS3942-A:** North American 824 - 894 MHz & 1850 - 1990 MHz Cellular bands.
- ◆ **WS3942-E:** European 890 - 960 MHz & 1710 - 1880 MHz Cellular bands.



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WS3942 GPS + Cellular Combined Magnet-mount Antenna

Featuring the high performance GPS patch element from our WS3910 series of GPS antennas, plus a high gain cell antenna in a convenient, weatherproof package. The WS3942 is designed to be conveniently installed as a rooftop or trunk mount antenna for easy installation. With a wide range of connector types available, the WS3942 is the perfect solution for TELEMATICS devices. Looking for an in-vehicle antenna? Try our WS3940 Covert or Glass Mount Combined Antenna.

The Wi-Sys Antenna Family

WS3910: High gain, low noise GPS antenna

WS3914: Low current GPS antenna

WS3917: Low cost filtered GPS antenna

WS3940: Active GPS + Cellular Combined
Glass mount/covert 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

- ◆ Operating Temp: -40c to +80c
- ◆ Humidity: 95% max (non condensing)

Mechanical

- ◆ Dimensions: 45mm x 51mm x 64mm height
(2.05" x 2.32" x 2.52" height)
- ◆ Cable: 1.5 DS-QEHV Shikoku DUAL Cable
- ◆ Cable lengths: 3 Meters (Standard),
other lengths optional
- ◆ Cable loss: 1.3 dB/m typical
- ◆ Connector: SMA standard
SMB, SMC, MCX, BNC, TNC optional

Antenna Response (GPS)

- ◆ Frequency: 1575.42 MHz
- ◆ Gain (typical): 28 dB
- ◆ Noise Figure (typical): 1.6 dB
- ◆ Polarization: Right Hand Circular
- ◆ LHCP Rejection: > 6 dB
- ◆ VSWR: ≤ 1.5

Electrical (GPS)

- ◆ Voltage: 2.7 – 5 VDC
- ◆ Current (typical): 9 mA @ 3.3V

Electrical (Cellular)

- ◆ Frequencies:
WS3942-A: 824-894 MHz (Cellular)
1850-1990 MHz (N. America)
- ◆ WS3942-E: 890-960 MHz (GSM)
1710-1880 MHz (Europe)
- ◆ Output Impedance: 50 Ohm Nominal
- ◆ VSWR: ≤ 2.0
- ◆ Gain: 0dB: 850 MHz
2dB: 1900 MHz

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