



a time and place...  
for everything

# Wi-Sys Communications Inc.

## WS3947 GPS + Quad Cell/3G/2.4 GHz Combined Covert/Dash or Glass Mount Antenna

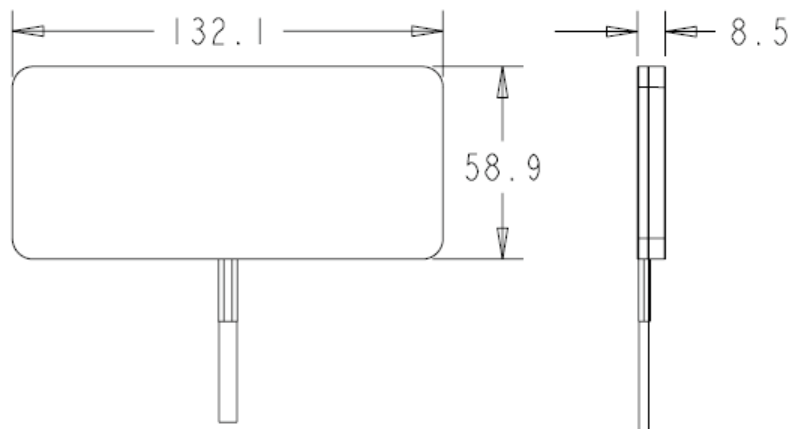
### Applications:

- ◆ GPS + Quad Cell (and 3G / 2.4 GHz) Applications
- ◆ Telematics via WiFi, ZigBee, Bluetooth and Proprietary 2.4 GHz
- ◆ Security and Law Enforcement
- ◆ Automotive Navigation
- ◆ Fleet Management & Telematics
- ◆ Asset Tracking Systems
- ◆ Covert/Dash or Glass Mount Installations



The WS3947 GPS, Quad Cellular, 3G & 2.4 GHz ISM Band antenna is an excellent choice for Telematics systems requiring dependable and highly accurate positioning data, as well as clear and consistent host-to-vehicle communications via Quad band Cellular, 3G or 2.4 GHz ISM Band such as WiFi. The WS3947's GPS antenna portion has excellent LHCP rejection for less multi-path effects, and it includes a low noise amplifier and a narrow band SAW filter, to provide a consistent and clear GPS signal while minimizing loss-of-lock when GPS conditions are less than ideal. The Quad Cell/3G/2.4 GHz antenna portion is tuned to receive 824-894 MHz (cell), 890-960 MHz (GSM), 1710-1880 MHz (European), and 1850-1990 MHz (N. American), as well as 1885-2200 MHz (US & Euro 3G/UMTS/W-CDMA) and 2400-2500 MHz (2.4GHz ISM) frequencies.

### Dimensions: (in mm)



### Features:

- ◆ Low price
- ◆ GPS, Quad-band Cellular, 3G & 2.4 GHz band reception
- ◆ Semi-flexible for embedded and covert installations
- ◆ Excellent out-of-band signal rejection
- ◆ High gain active GPS antenna
- ◆ Easy to install
- ◆ Wide range of connector types available.
- ◆ RoHs Compliant

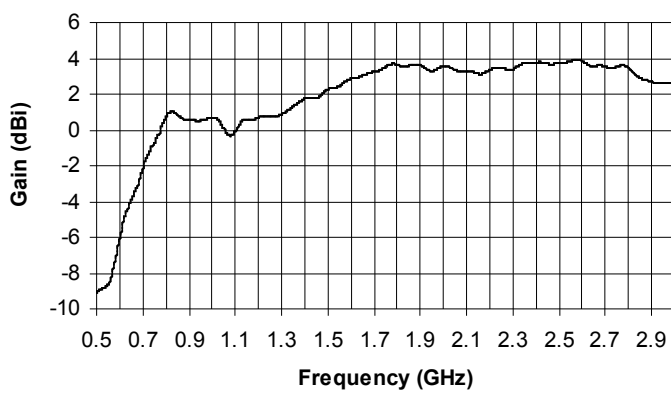


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### WS3947 GPS/Cell/3G/2.4 GHz Combined Covert/Dash, Glass Mount Antenna

Gain of WS3947



### Ordering information:

#### WS3947-C-3M-SMA/SMA:

For Covert and Dash mount installations.

#### WS3947-GM-3M-SMA/SMA:

For Glass mount installations.

## Technical Specifications

### Environmental Specifications

- ◆ Operating Temp: -40c to +85c

### Mechanical

- ◆ Dimension: 132.1mm x 58.9mm x 8.5mm
- ◆ Housing: Lexan® covered urethane foam
- ◆ Cable: 1.5 DS-QEHV Shikoku DUAL Cable
- ◆ Cable length: 2 cables x 3 Metres (Standard), other lengths optional.
- ◆ Cable loss: 1.0 dB/m typical
- ◆ Connectors: 2 x SMA (other connectors available)

### Antenna Response (GPS)

- ◆ Frequency: 1575.42 MHz
- ◆ Gain (typical): 28 dB
- ◆ Noise Figure (typical): 1.5 dB
- ◆ Polarization: Right Hand Circular
- ◆ LHCP Rejection: > 6 dB
- ◆ VSWR: ≤ 1.5:1

### Electrical (GPS)

- ◆ Voltage: 3.0 – 5.0 VDC
- ◆ Current (typical): 9.0 mA@ 3.5V

### Electrical (Cellular/3G/2.4GHz)

- ◆ Frequencies: 824-894 MHz (Cellular)  
890-960 MHz (GSM)  
1710-1880 MHz (Europe)  
1850-1990 MHz (N. America)  
1885-2200 MHz (US & EU 3G)  
2400-2500 MHz (2.4GHz ISM)
- ◆ Output Impedance: 50 Ohm Nominal
- ◆ VSWR: < 2.0
- ◆ Gain: 2 dBi (approx.)

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