



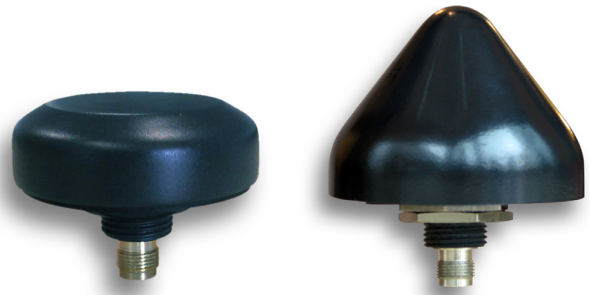
a time and place...
for everything

Wi-Sys Communications Inc.

WS3971 Low Noise Permanent Mount GPS Antenna

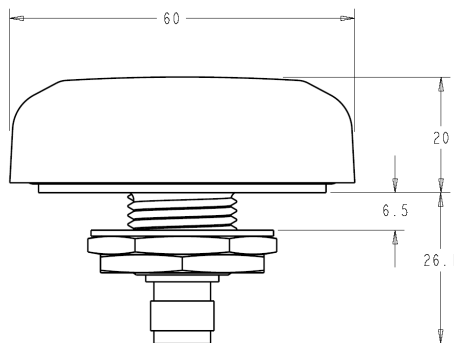
Applications:

- ◆ Mission Critical GPS
- ◆ Precision Ag Equipment
- ◆ Military and Security
- ◆ Fleet Management & Telematics
- ◆ Fixed Timing & Positioning
- ◆ WiMAX / Fixed Wireless Broadband
- ◆ Marine Vessel Installations

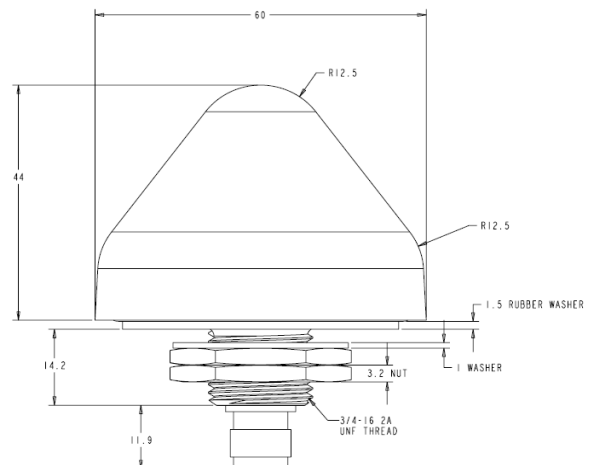


The WS3971 Low Noise Permanent Mount GPS Antenna has the industry's lowest noise figure. It features a perfectly tuned custom ceramic patch element, ESD circuit protection, a patented very low noise dual stage LNA circuit and a high out-of-band rejection SAW filter. The WS3971 provides the clearest GPS signal reception while minimizing loss-of-lock even in less than ideal conditions. Available in an all-plastic, non-corrosive low profile package for mobile applications or with a dark grey or white cone-shaped radome for fixed installations, the WS3971 permanent mount GPS antenna is the optimum choice for critical GPS applications.

WS3971 dimensions (mm)



WS3971-DH dimensions (mm)



Features:

- ◆ Weather proof, all-plastic, non-corrosive, low profile or cone-shaped enclosure
- ◆ Very low noise (0.8 dB) LNA
- ◆ 28dB gain @ 3.3V
- ◆ Low current: 8mA (typ)
- ◆ High rejection SAW filter
- ◆ 15 KV ESD
- ◆ 3/4 inch thru-hole or bracket mount
- ◆ Voltage range 2.7 to 5.5 V
- ◆ RoHS compliant

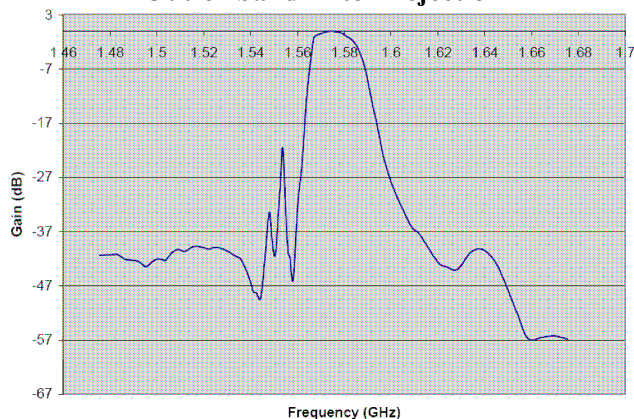


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WS3971 Low Noise Permanent Mount GPS Antenna

Out-of-band Filter Rejection



Ordering information:

WS3971: Low noise, high rejection, all plastic low profile dark grey housing with a TNC connector

WS3971-DH-B: Low noise, high rejection all plastic housing with dark grey cone-shaped radome and a TNC connector

WS3971-DH-W: Low noise, high rejection all plastic housing with white cone-shaped radome and a TNC connector

Technical Specifications

Environmental Specifications

- ◆ Operating temp: -40c to +85c (-45c to +85c storage)
- ◆ Weather Proof: IP67

Mechanical

- ◆ Dimensions:
WS3971: 60 mm dia. x 21 mm H
WS3971-DH: 60 mm dia. x 44 mm H
- ◆ Weight: 50g
- ◆ Housing: GE Lexan EXL9330
- ◆ Mounting: 3/4" thru-hole or bracket mount
- ◆ Connector: TNC Female connector
- ◆ 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 to 5.5 VDC
- ◆ Current: 8mA

LNA Specifications

- ◆ Frequency: 1572.5 – 1578 MHz
- ◆ Output Impedance: 50 Ohm
- ◆ VSWR: 1.5:1 max (at connector)
- ◆ Gain: 28 dB (typical)
- ◆ Noise figure: 0.8 dB (typical)

Wi-Sys Communications Inc.

31B Richardson Side Road
Ottawa, ON K2K 0A1 Canada
Tel 613.254.7386 Fax 613.254.7388
sales@wi-sys.com www.wi-sys.com

