



a time and place...
for everything

Wi-Sys Communications Inc.

WS3978 High Gain Permanent Mount GPS Antenna

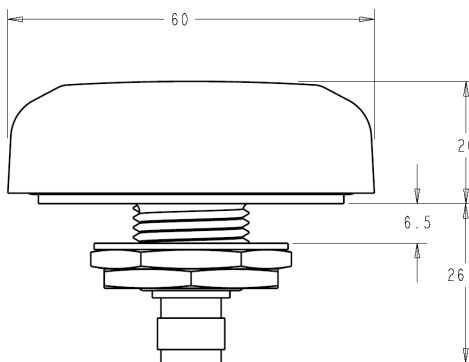
Applications:

- ◆ Fixed Timing & Positioning Applications
- ◆ WiMAX / Fixed Wireless Broadband
- ◆ Cellular Base Station
- ◆ Fleet Management & Telematics
- ◆ Marine Vessel Installations

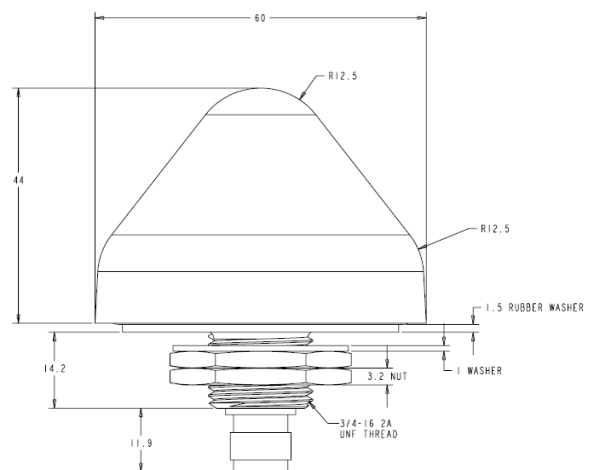


The WS3978 high gain permanent mount GPS Antenna provides 40 dBs of gain and great high out-of-band rejection performance. It features a perfectly tuned custom ceramic patch element for maximum signal reception, ESD circuit protection, a very low noise (0.5 dB) 3 stage LNA circuit and a SAW filter, enabling the WS3978 to provide a reliable and clear GPS signal while minimizing loss-of-lock, even when conditions are less than ideal. Available in an all-plastic, non-corrosive low profile package for vehicle mount or with a dark grey or white cone-shaped radome for fixed installations. The WS3978 high gain permanent mount GPS Antenna is the optimum choice for GPS Tracking and Timing applications with long cable runs.

WS3978 dimensions (mm)



WS3978-DH dimensions (mm)



Features:

- ◆ Weather proof, all-plastic, non-corrosive, low profile or cone-shaped enclosure
- ◆ 3/4 inch thru-hole or bracket mount
- ◆ Voltage range: 2.7 to 5.5 V
- ◆ High gain: 40 dB (typical)
- ◆ Very low noise figure: 0.5dB
- ◆ Great out-of-band signal rejection
- ◆ 15 KV ESD circuit protection

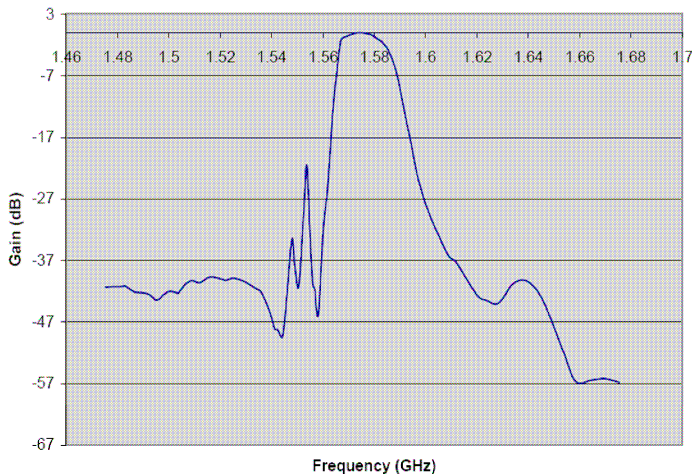


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Out-of-band filter rejection



Ordering information:

WS3978: High gain, all plastic low profile dark grey housing with a TNC jack connector

WS3978-DH-B: High gain, all plastic housing with a dark grey cone-shaped radome and a TNC jack connector

WS3978-DH-W: High gain, all plastic housing with a white cone-shaped radome and a TNC jack connector

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Technical Specifications

Environmental Specifications

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

Mechanical

- ◆ Dimensions:
WS3978: 60 mm dia. x 21 mm H
WS3978-DH: 60 mm dia. x 44 mm H
- ◆ Weight: 50g
- ◆ Housing: GE Lexan EXL9330,
- ◆ Mounting: 3/4" thru-hole or bracket mount
- ◆ Connector: TNC jack connector
(flying-cable optional)
- ◆ 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: 15mA
- ◆ ESD circuit protection: 15KV

LNA Specifications

- ◆ Frequency: 1572.5 – 1578 MHz
- ◆ Output Impedance: 50 Ohm
- ◆ VSWR: 1.5:1 max (at connector)
- ◆ Gain: 40 dB (typical)
- ◆ Noise figure: 0.5 dB (typical)