

# 58532A

## GPS L1 Reference Antenna



The Symmetricom 58532A GPS L1 Reference Antenna is the latest in a line of Symmetricom antennas used to deliver L1 carrier frequency signals to GPS synchronization modules and receivers. Based on a design with proven reliability in tens of thousands of installations, the 58532A, like its predecessors, is characterized by low noise and high gain to provide optimum signal quality.

### Outstanding Immunity to RF Interference

Noise and interference near the L1 carrier can compromise reception of GPS signals. The 58532A features excellent filtering, with narrow bandwidth and steep rolloff to preserve the GPS signal while attenuating unwanted signals near the L1 carrier.

### Improved Immunity to Lightning

Electromagnetic fields caused by nearby lightning strikes can induce surge voltages in the antenna cable, damaging the antenna. The 58532A offers improved immunity to induced voltages through built-in diode protection.

## Durable and Easy to Install

Designed for easy installation in outdoor locations, the 58532A features a durable, unobtrusive, cone-shaped cover that prevents snow and debris build-up. In addition, a sturdy aluminum mounting base allows easy attachment to the Option AUB antenna mast. With this type of mounting, the antenna/cable connector (type N) is protected from the weather. If your system requires the new 58529A Antenna Line Amplifier with Bandpass Filter or 58530A GPS L1 Bandpass Filter, then these cylindrical products can fit directly inside the antenna mast to be sheltered from the weather as well.

Power is conveniently supplied to the antenna via the RF cable. The antenna requires 5 Vdc at less than 27 mA. This is available from several different GPS engines.

Option 001 includes an N Plug to TNC Jack adapter to accommodate TNC cable users.

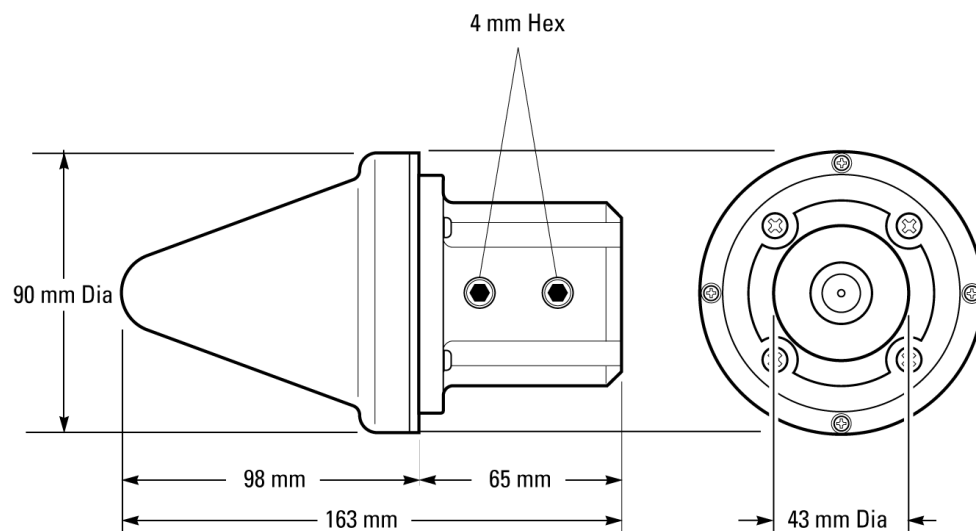


Figure 1. Antenna and mounting base dimensions

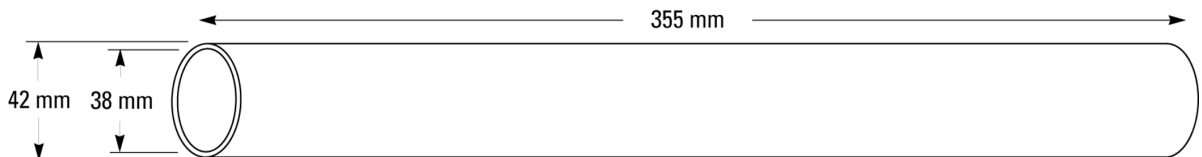


Figure 2. Option AUB mounting mast dimensions

Figure 3. Relative amplitude versus frequency response for 58532A GPS L1 Reference Antenna.

# 58532A Specifications and Operating Characteristics

## ELECTRICAL

Frequency Range (3 dB Bandwidth)	1575.42 MHz $\pm$ 10 MHz (typical)
Polarization	Right-hand circular
Output Impedance	50 $\Omega$ (typical)
Total Gain	> 30 dBi (38 dBi typical @ elevation angle 90°)
Out-of-Band Signal Attenuation	60 dB (typical) at 1575.42 MHz $\pm$ 50 MHz
Noise Figure	< 2.2 dB (1.8 dB typical)
VSWR	< 2.5 (1.5 typical)
dc Power	5 Vdc $\pm$ 0.5 Vdc, < 27 mA (20 mA typical)

## PHYSICAL

Connector	Type-N Jack
Dimensions	
Antenna without Mounting Base	90 mm D x 128 mm H (includes connector)
Mounting Base	43 mm I.D., 75 mm O.D., 65 mm H
Mounting Mast (Option AUB)	38 mm I.D., 42 mm O.D., 355 mm L
Weight	
Antenna without Mounting Base	187 g
Mounting Base	240 g
Mounting Mast (Option AUB)	250 g
Material	
Antenna	
Radome	UV-stabilized polycarbonate
Bottom housing	Die-cast aluminum, powder coated
Mounting Base	Die-cast aluminum, powder coated
Option AUB Mounting Mast	Anodized aluminum with teflon coating or stainless steel
Color, Antenna and Mounting Base	White
Operating Temperature	-40°C to +85°C
Storage Temperature	-45°C to +90°C

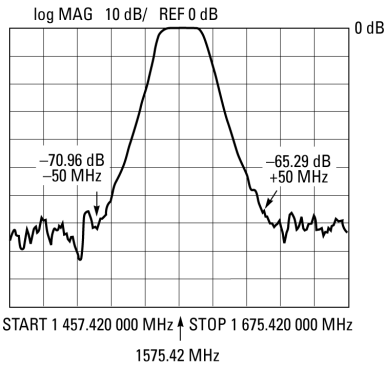


Figure 1. Relative amplitude versus frequency response for 58532A GPS L1 Reference Antenna.

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ORDERING INFORMATION: (CONTACT SYMMETRICOM FOR PRICING AND AVAILABILITY)

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58532A GPS L1 Reference Antenna

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Option AUB Mounting Mast

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Option 001 N to TNC Adapter

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For more information:

Dependable Accessories for Your GPS Installation — Brochure

Designing Your GPS Antenna System — Configuration Guide



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