

# L1GPSA-N



## L1 GPS Active Antenna Technical Product Data

### Features

- High Gain Amplified Roof Antenna
  - Provides 38 dB gain via internal LNA.
- Low Noise Figure
  - 1.8dB typical
- Low Operating Current
  - 20mA typical
- Enhanced immunity to lightning surge
  - IEC61000-4-5 Level 4 (4000V) prevents antenna failure caused by induced lightning.
- Optional L1RAMB Mount with Base and Pole available separately



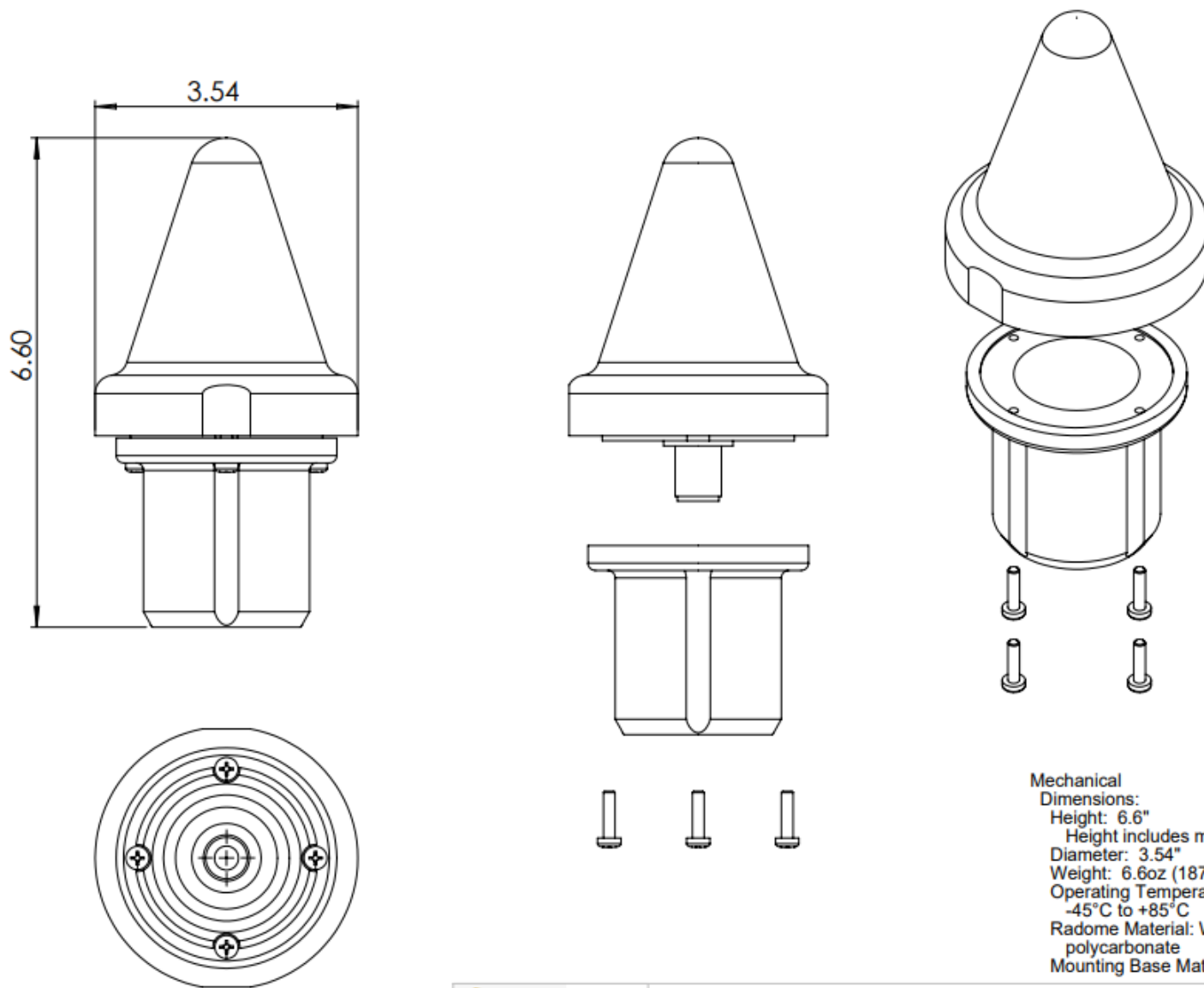
### Description

The L1GPSA-N is a 38dB gain GPS antenna designed for the L1 carrier frequency. Designed for timing and synchronization applications, the L1GPSA-N maintains excellent performance under severe environmental conditions (rain, snow etc.). It also features high gain, low noise figure and a low operating current. With convenient mounting options, the L1GPSA-N is an excellent choice for ensuring a strong reliable L1 GPS signal.

### Roof Antenna Electrical Specifications, TA=25°C

Parameter	Notes	Min	Typ	Max	Unit
Frequency	Receives and amplifies GPS L1 frequency.		1.575		GHz
Gain	The relative increase in signal power provided by the internal LNA.		38		dB
Bandwidth	Passband centers at GPS L1 frequency.		10		MHz
Filtering	Out of band rejection +/-50MHz from GPS L1 frequency.		-60		dB
Noise Figure	The increase in noise power relative to an ideal amplifier.		1.8		dB
Output SWR	Output Standing Wave Ratio: S22 at L1.			1.5:1	-
Characteristic Impedance	Output port matched to 50Ω.		50		Ω
Req. DC Input V.	Operating Voltage Range.	4.5	5	5.5	VDC
Current Draw	Typical current consumption.		20	27	mA
<b>Polarization</b>					
<b>Right Hand Circular Polarization</b>					
Connector Options	Connector Style		Charge		
	Type N-female		No Charge		

# Mechanical



Mechanical  
 Dimensions:  
 Height: 6.6"  
 Height includes mounting base  
 Diameter: 3.54"  
 Weight: 6.6oz (187g) MAX  
 Operating Temperature Range:  
 -45°C to +85°C  
 Radome Material: White polycarbonate  
 Mounting Base Material: Aluminum

Female N connector required, use adapter for mating



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Tolerances:  
 X ± 0.030  
 XX ± 0.015  
 XXX ± 0.005  
 Angle ± 1°

04-14-2021

MM

Scale: 1:2

Rev: 1

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Units are inches and degrees