CGMP167

GPS and GLONASS Ceramic Patch Antenna

GNSS Antenna

Key Specifications

- Antenna Size: 25mm x 25mm x 4.0mm
- Frequency: 1575 MHz (GPS) and 1602 MHz (GLONASS)
- Center Frequency: 1583MHz (with JHSO2 ground plane)
- Impedance: 50 Ω
- Polarization: Right-hand circular (RHCP)
- Peak Gain: 3.5 dBi
- VSWR: <1.5

Materials

Antenna Substrate: Dielectric ceramics
Pin: Copper and tin-plated alloy
Electrode and Ground Base: silver-plated
Adhesive: NITTO 5000NS

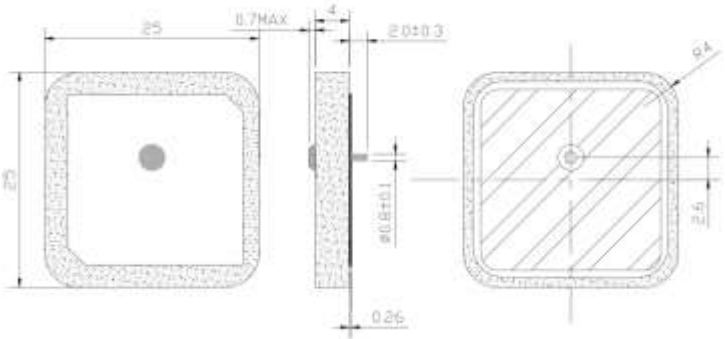
Operating Conditions

- Operating temperature range is -40ºC to +85ºC
- storage temperature range is -40ºC to +110ºC
- Relative Humidity range 55-75%RH
- Moisture Proof: exposure to 40 ± 2ºC and 90-95% RH for 96 hours and 1-2 hours recovery time.
- Vibration Resistance: Applied vibration of 10-55Hz(1.5MM amplitude) for 2 hours each in X,Y, and Z Directions

Soldering and Handling

- Adhesion strength of soldering: The antenna is tested to ensure it can withstand a force of 2kg applied to the lead in an axial direction for 10 ± 1 seconds.
- device must be used within 24 hours of opening or be vacuum resealed.

Dimensions (unit: mm)



INTRODUCTION

The CGMP167 is a compact **ceramic microstrip patch antenna** engineered for applications operating at **1575–1602 MHz** (GPS and GLONASS bands).

It is well-suited for reliable satellite signal reception, even in environments with orientation variability or multipath interference.

APPLICATIONS

Its compact size, surface-mount design, and environmental durability (operating from -40°C to +85°C) make it ideal for **industrial, automotive, and portable electronics** where space is limited but reliable satellite connectivity is critical.

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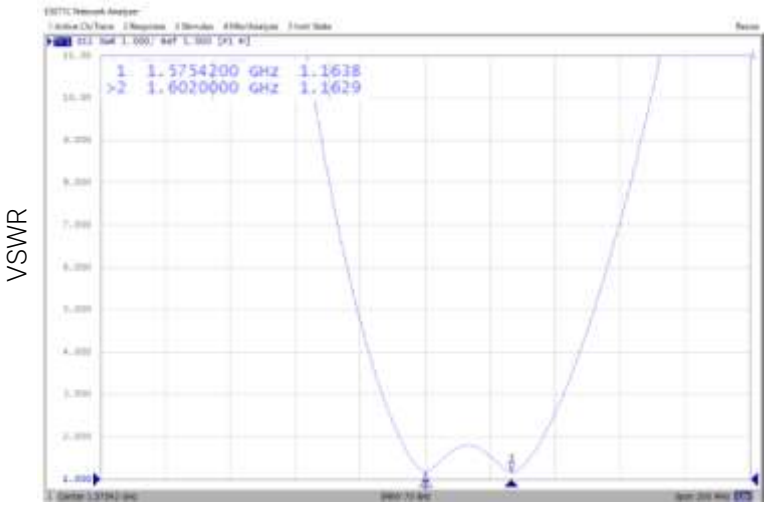
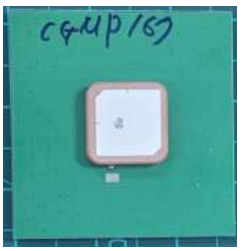
VSWR



ITEMS	Specifications	
Frequency[Mhz]	1575.42 (GPS L1)	1602 (GLONOSS G1)
Peak Axial Ratio (dB)	3.60	0.11
Typical Peak Gain (dBic)	3.17	3.58
VSWR	Less than 2 : 1	
Impedance	50Ω	
Polrarization	RHCP	
Direcitivity	Directional	
Frequency Temperature Coefficient	0±10 ppm/℃	



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※ EVB size : 70 x 70mm

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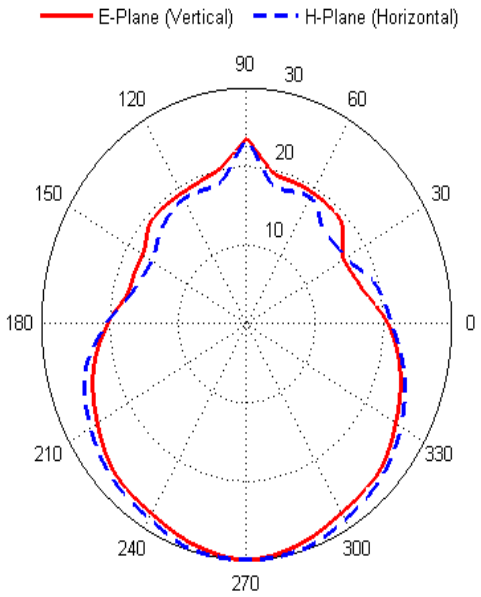
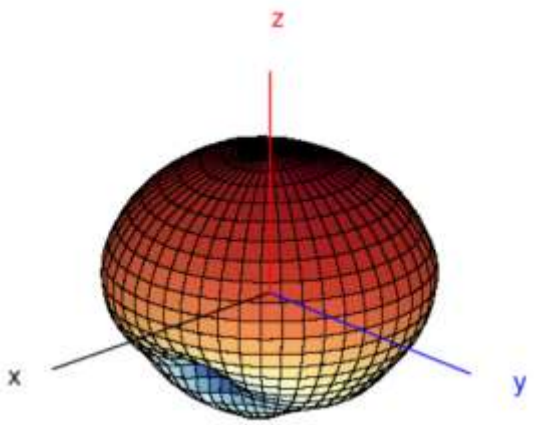
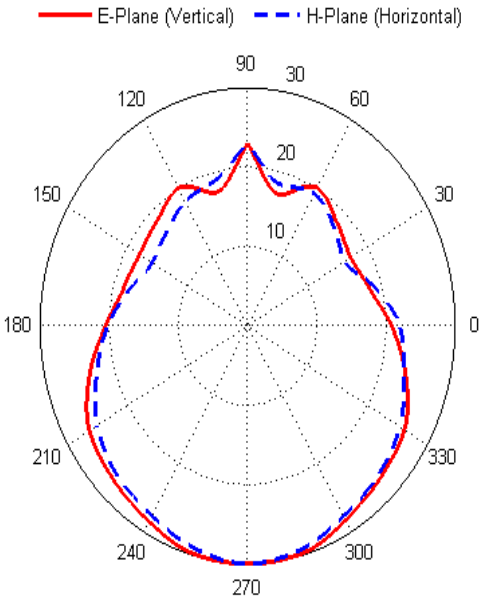
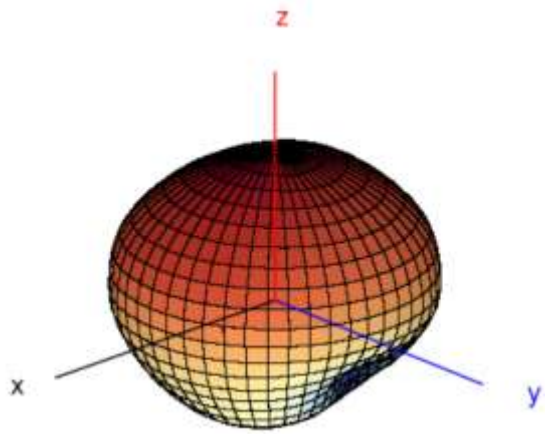
Radiation Pattern





1575.42MHz





1602MHz

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