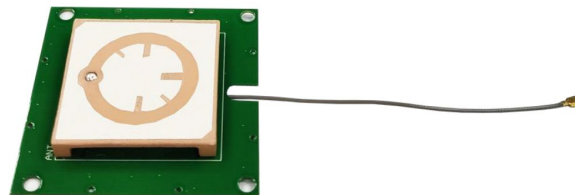


Features

- Supporting: L1+L5 GPS
- Stable and reliable in performances
- Low temperature coefficient of frequency
- RoHS & REACH Compliant



Applications

- Navigation systems or position tracking systems
- Car Navigation
- Security Surveillance

Specifications

Electrical			
Frequency Bands	L1 Band		L5 Band
Center Frequency	1575.42 MHz	1602 MHz	1176.45 MHz
Peak Gain	4.7 dBi	4.2 dBi	2.3 dBi
Average Gain	-2.0 dB	-2.0 dBi	-4.0 dBi
Efficiency	63%	62%	40%
Return Loss	< -10 dB		
Polarization	RHCP		
Impedance	50Ω		
LNA			
Frequency Bands	L1 Band		L5 Band
Center Frequency	1575.42 MHz	1602 MHz	1176.45 MHz
Gain (typ.)	28 ± 3 dB		
Noise Figure (typ.)	3.0 dB		
Input Voltage	DC = 3.0 ± 0.3		
Current Consumption	12.5 mA (at DC 3V)		
Output Impedance	50 Ω		
Environmental			
Operating Temperature	-40°C~+85°C		
Storage Temperature	-5°C~+40°C		
Relative Humidity	10 ~70%		
RoHS Compliant	Yes		

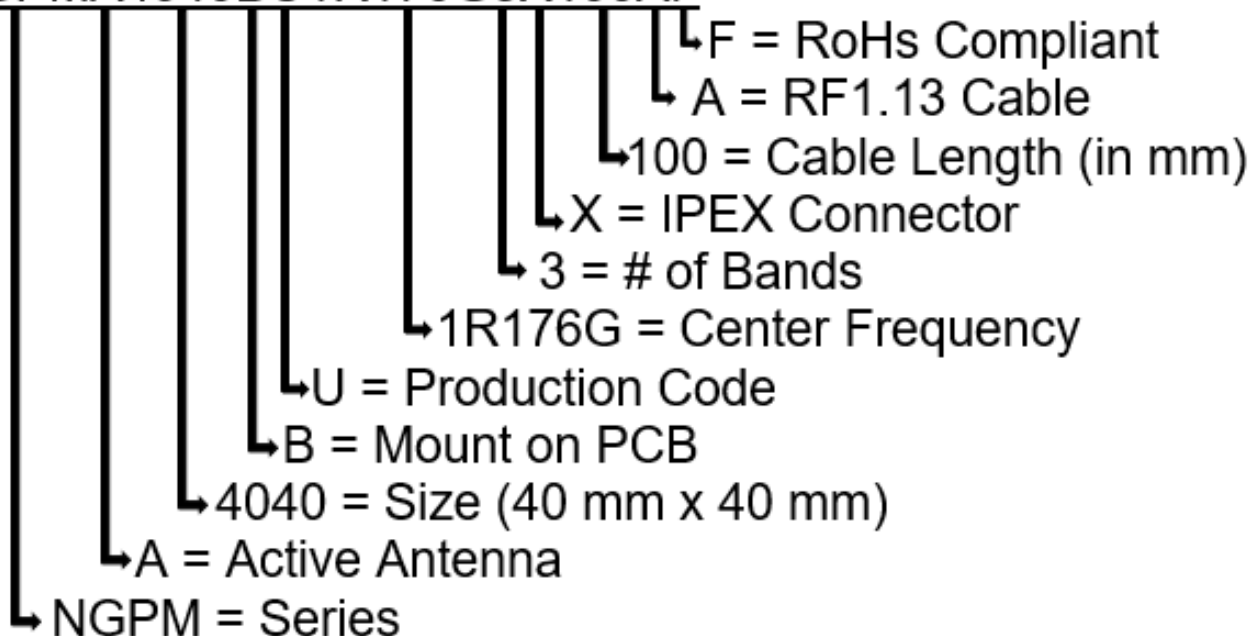
NGPMA4040BU1R176G3X100AF

L1 & L5 GPS Active High Precision Patch Antenna

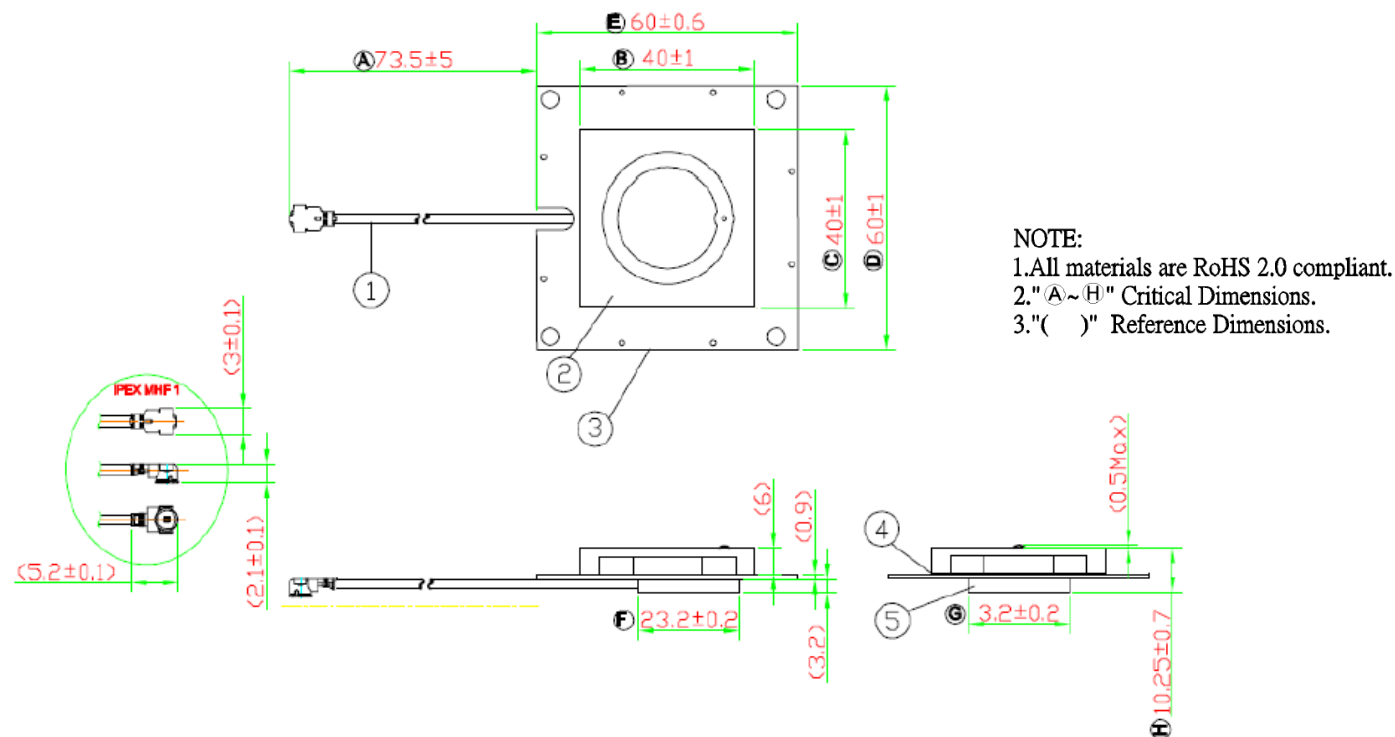


Part Number Breakdown

NGPMA4040BU1R176G3X100AF



Dimension Drawing

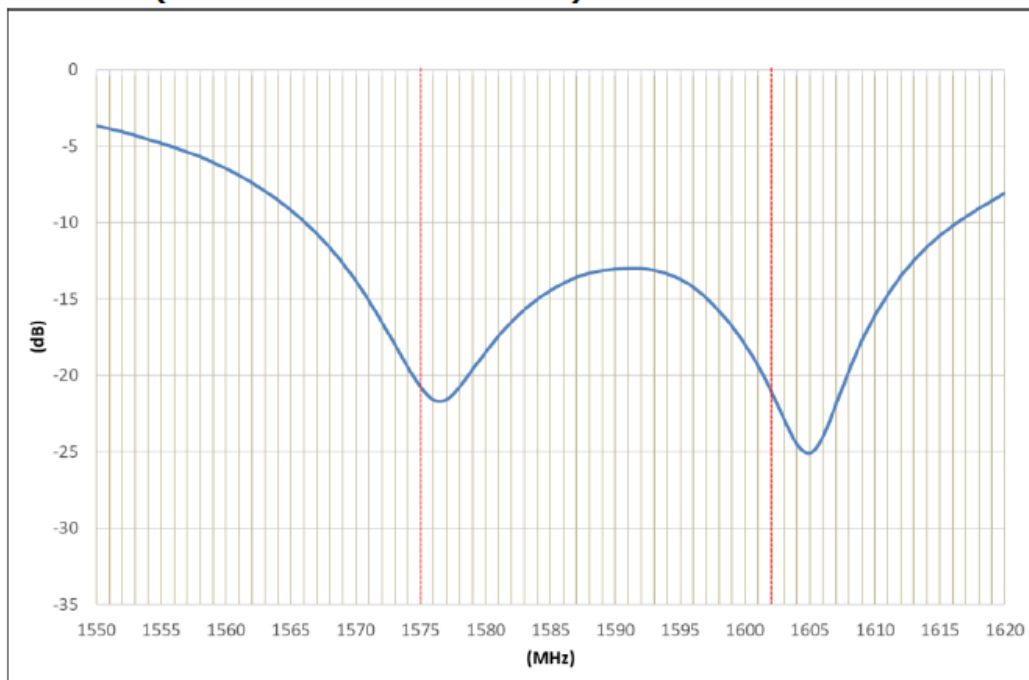


Dimensions (mm) & Mechanical

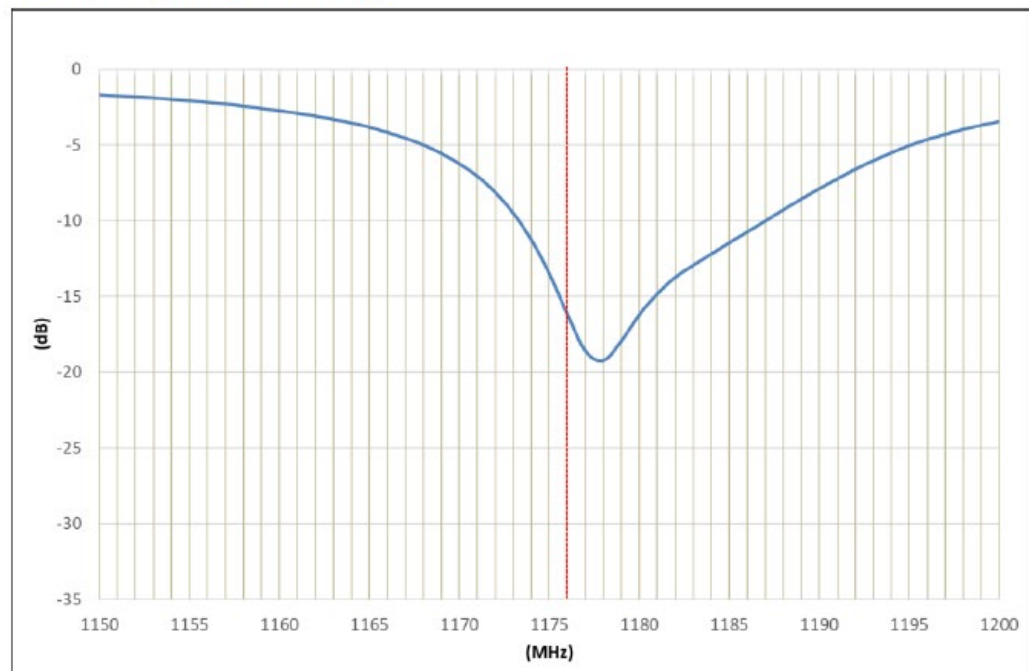
Body Length	40 ± 1
Width	40 ± 1
Height	10.25 ± 0.7
Cable Length	100 ± 5
Cable (4)	RF1.13
Connector	IPEX
PCB (3)	60±0.6 x 60 ±1
Material (2)	Ceramic
Mounting Method	Adhesive

Return loss (dB)

L1 Band (1575.42 MHz & 1602 MHz)



L5 Band (1176.45 MHz)

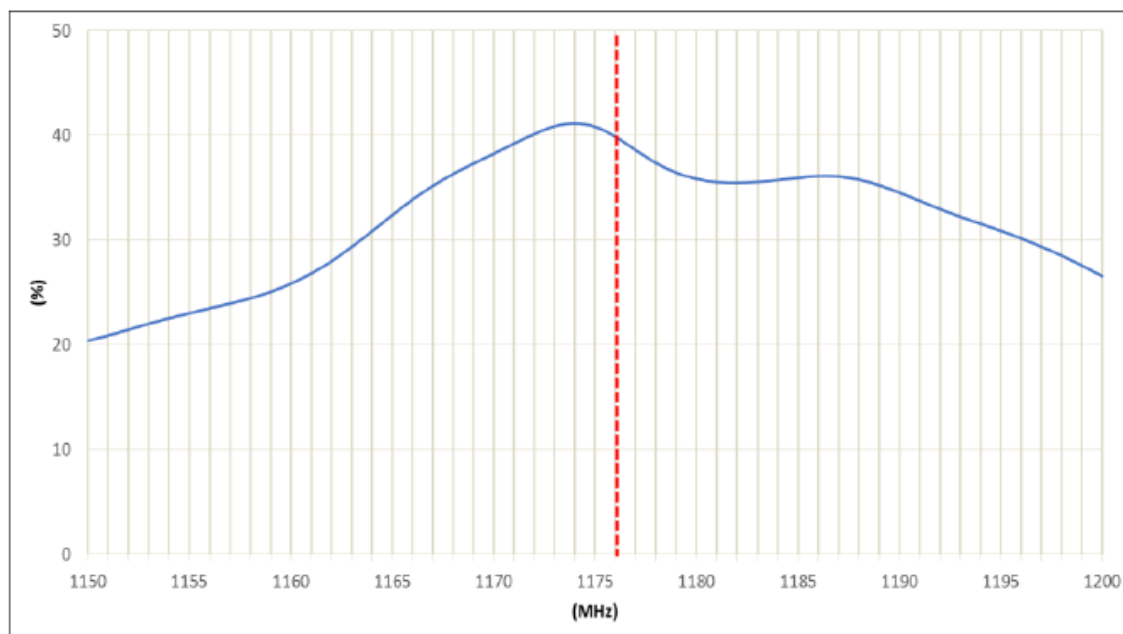


Efficiency (%)

L1 Band (1575.42 MHz & 1602 MHz)

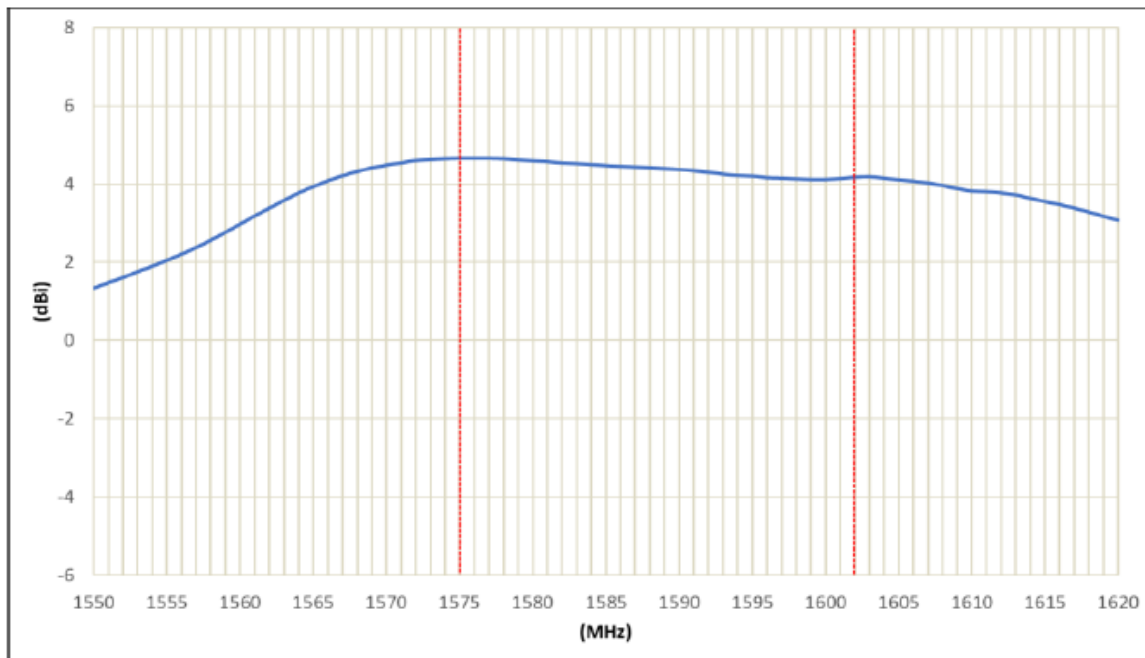


L5 Band (1176.45 MHz)

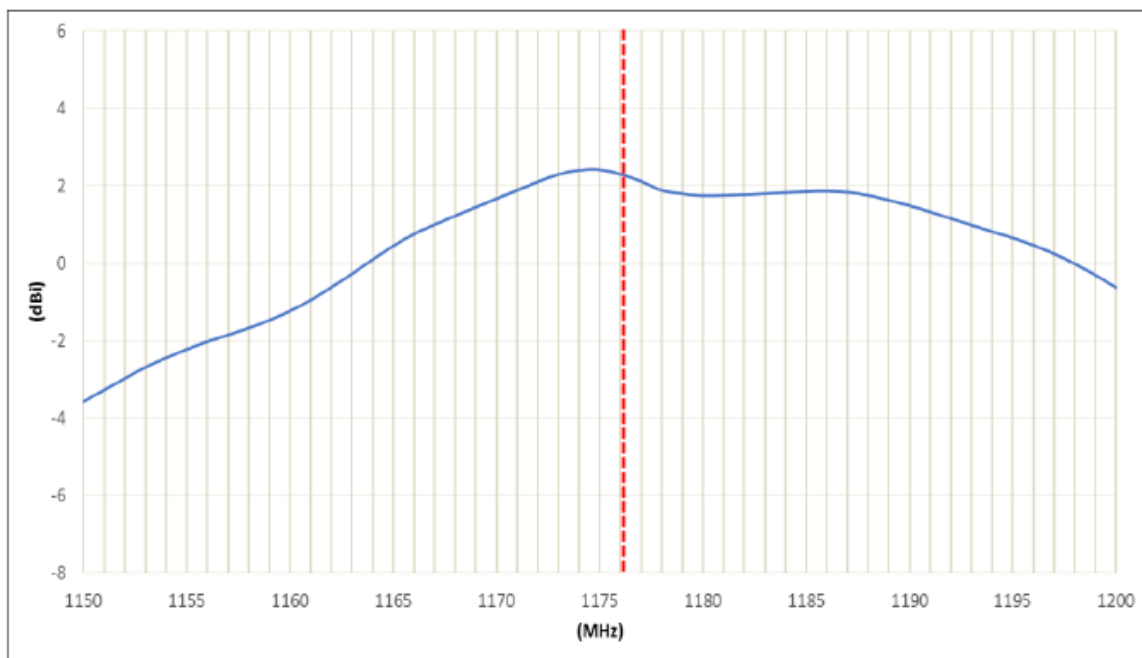


Peak Gain (dBi)

L1 Band (1575.42 MHz & 1602 MHz)



L5 Band (1176.45 MHz)

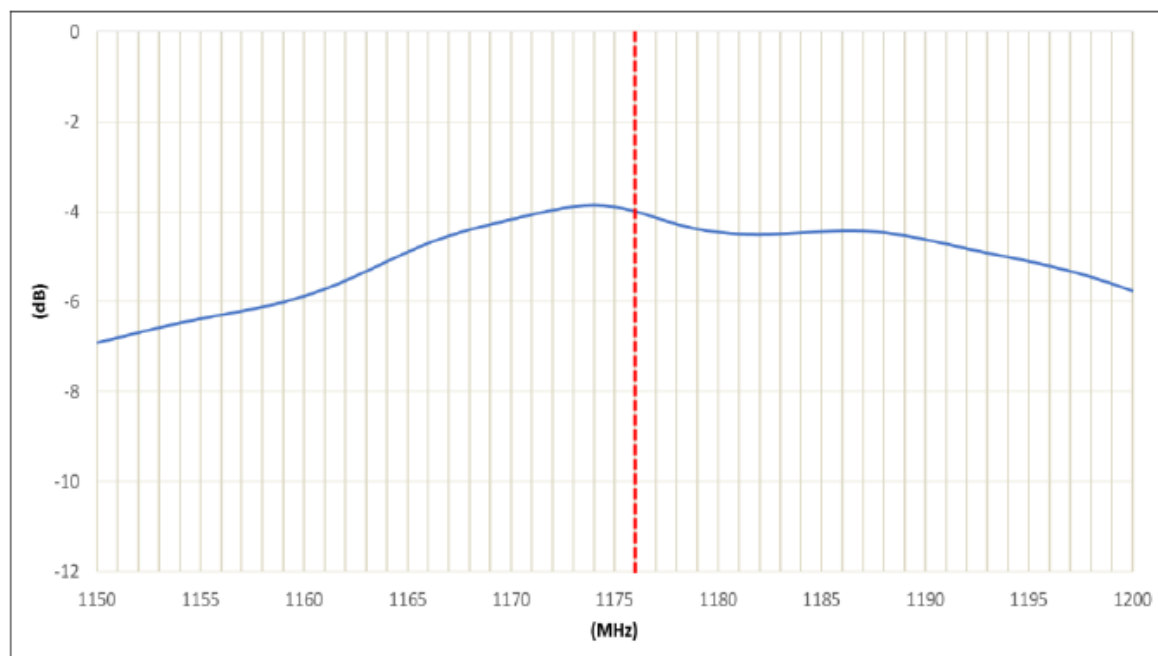


Average Gain (dB)

L1 Band (1575.42 MHz & 1602 MHz)



L5 Band (1176.45 MHz)

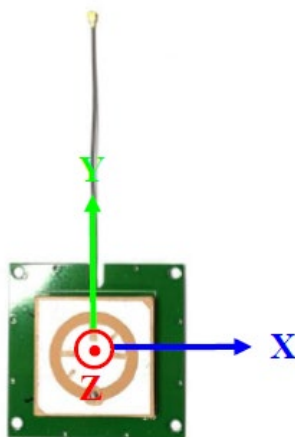


Antenna Radiation Pattern Measurement:

The antenna radiation patterns are measured in a 3D Anechoic Chamber. The measurement setup is as show below.



3D Radiation Patterns

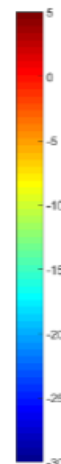
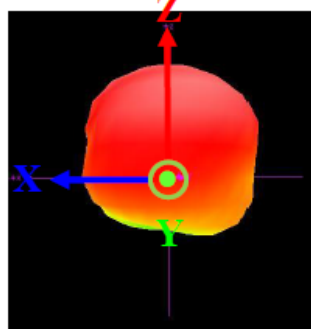
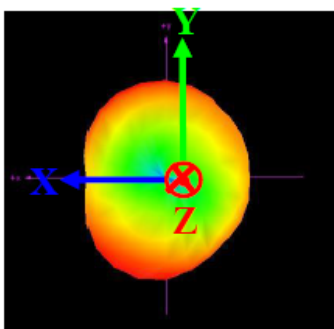
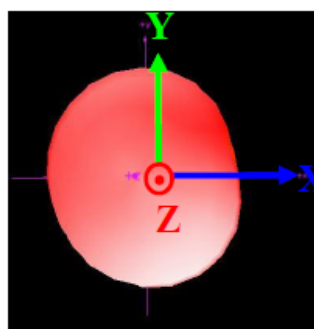


NGPMA4040BU1R176G3X100AF

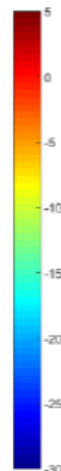
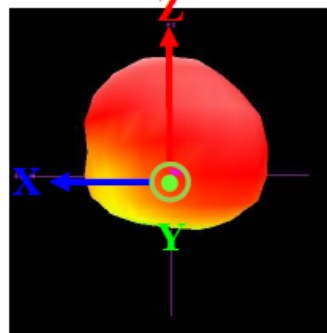
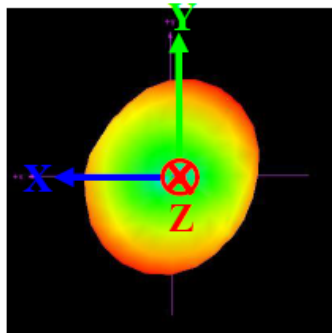
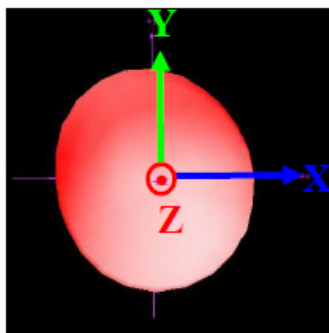
L1 & L5 GPS Active High Precision Patch Antenna



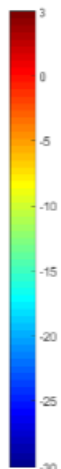
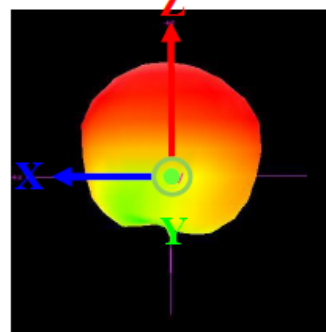
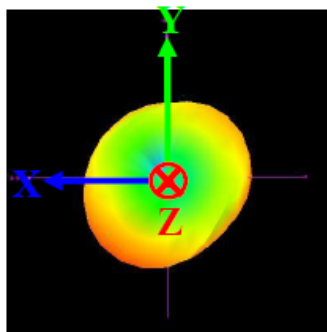
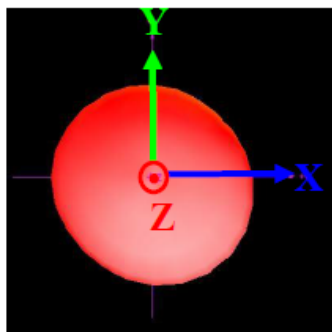
1575.42 MHz (unit: dBi)



1602MHz (unit: dBi)



1176.45 MHz (unit: dBi)



Packing

- (1) Unit Weight: 22.5 ± 1 (g)
- (2) Quantity: Each PE = 5 pcs
Each Outer Carton = 500 pcs



Carton Dimensions:

