

NGPMA2525BU1R176G3X100AF

L1 & L5 GPS Active High Precision Patch Antenna



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

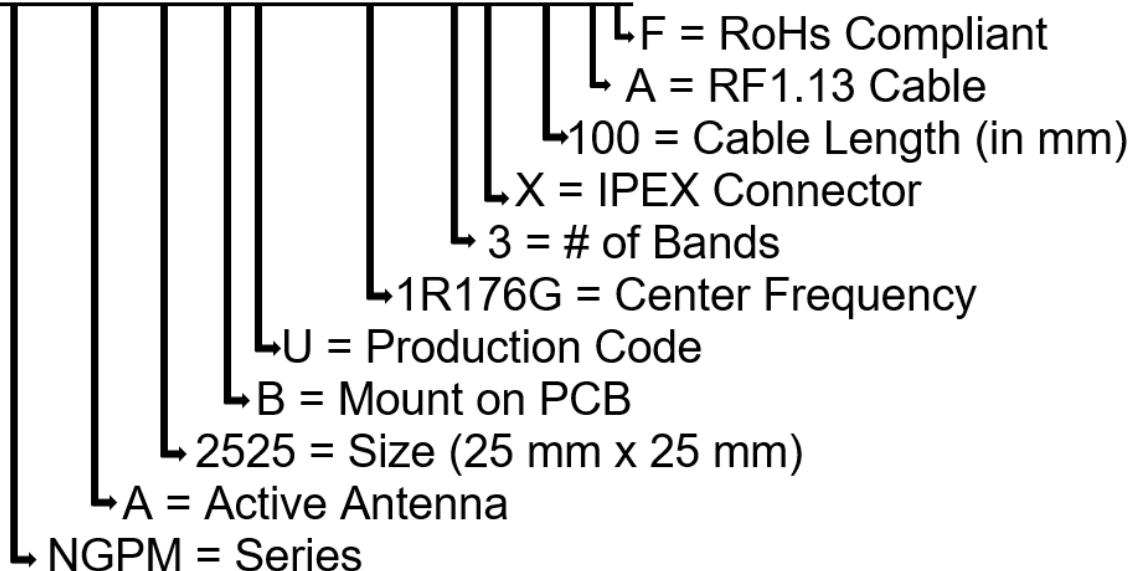
Specifications

Electrical			
Frequency Bands	L1 Band		L5 Band
Center Frequency	1575.42 MHz	1602 MHz	1176.45 MHz
Peak Gain	2.0 dBi	0.2 dBi	-1.1 dBi
Average Gain	-4.3 dBi	-4.8 dBi	-6.0 dBi
Efficiency	37%	32%	25%
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		

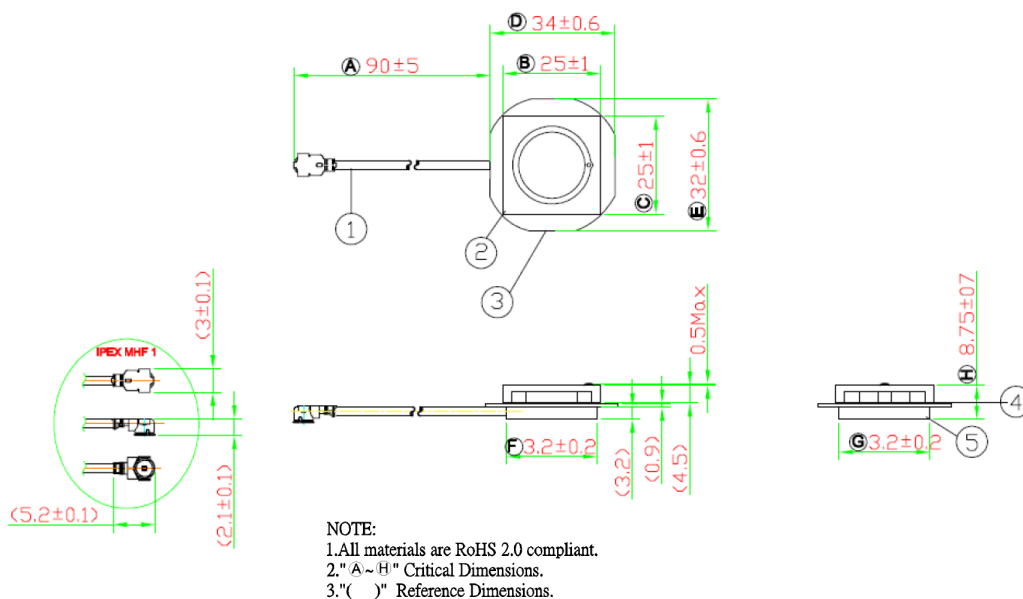


Part Number Breakdown

NGPMA2525BU1R176G3X100AF



Dimension Drawing



Dimensions (mm) & Mechanical

Body Length	25 ± 1
Width	25 ± 1
Height	8.75 ± 0.7
Cable Length	100 ± 5
Cable (4)	H100
Connector	BNC Male
PCB (3)	$34 \pm 0.6 \times 32 \pm 0.6$
Material (2)	Ceramic
Mounting Method	Adhesive

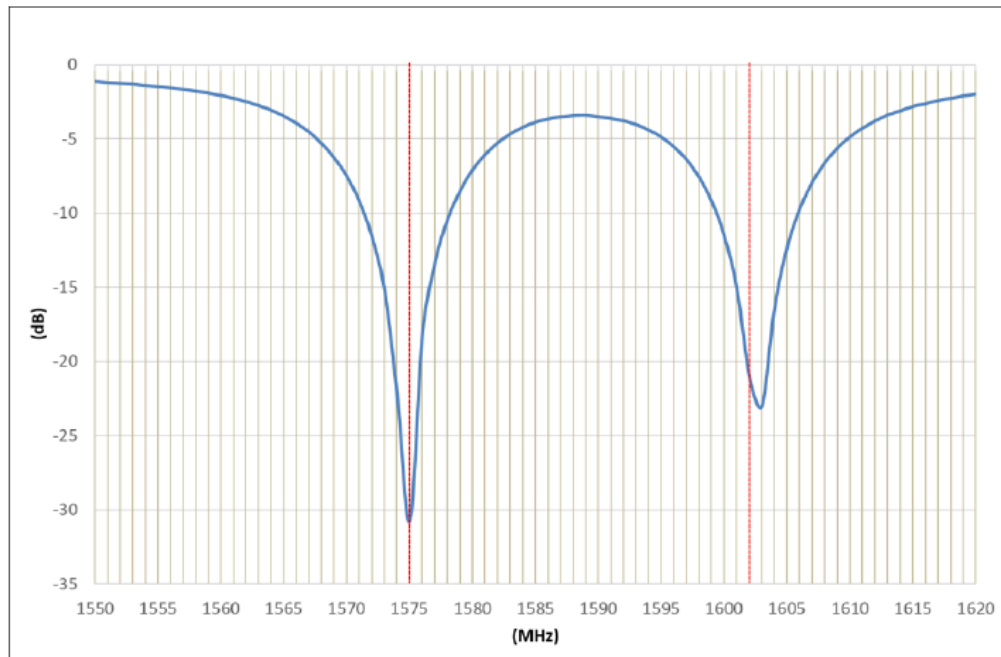
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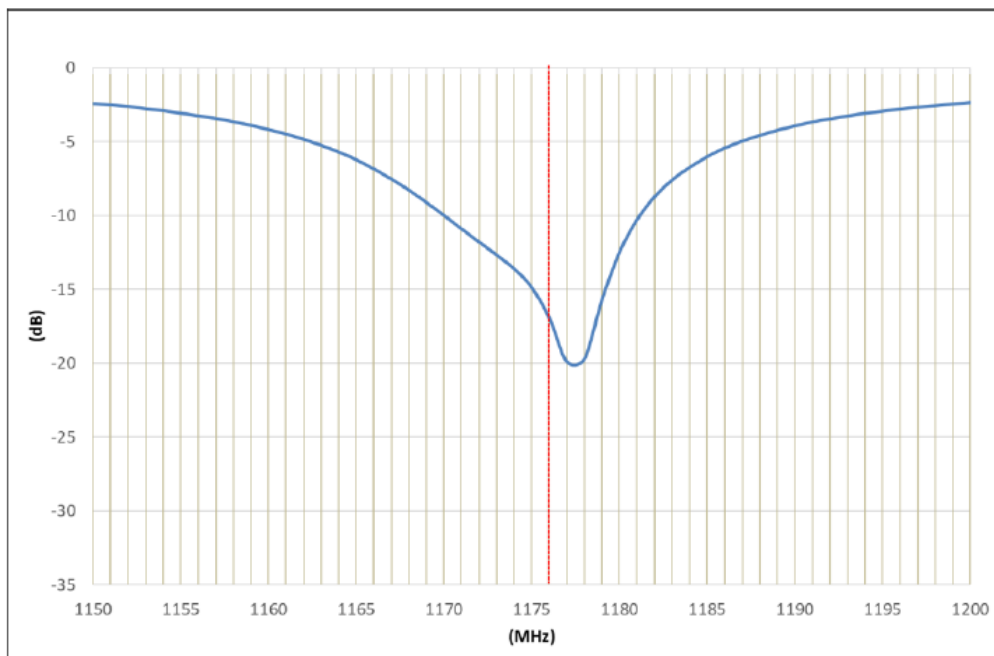


Return loss (dB)

L1 Band (1575.42 MHz & 1602 MHz)

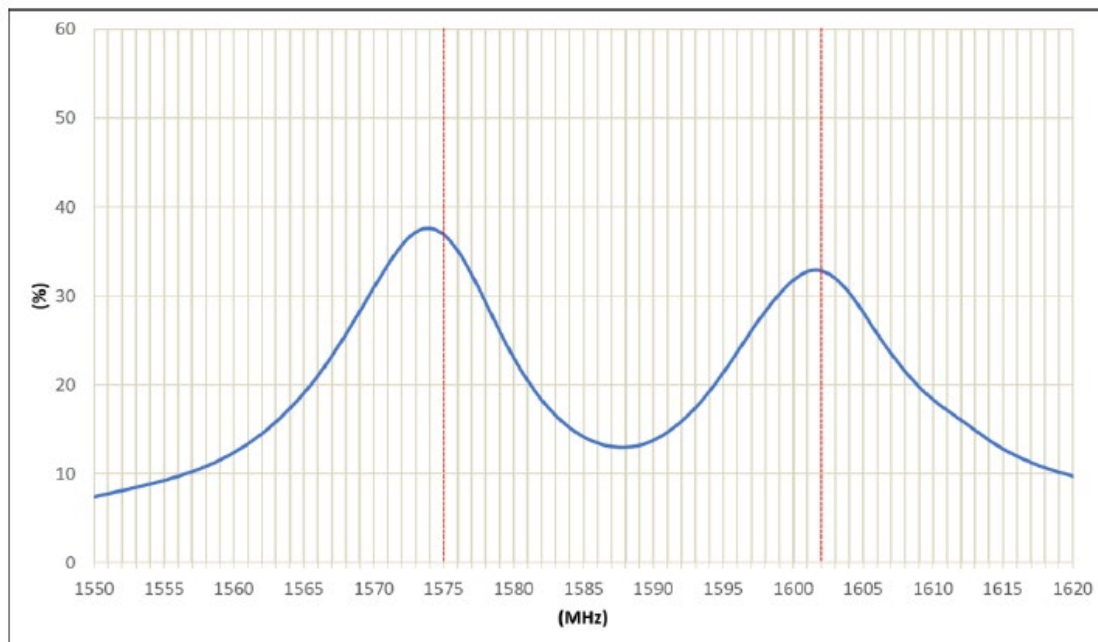


L5 Band (1176.45 MHz)

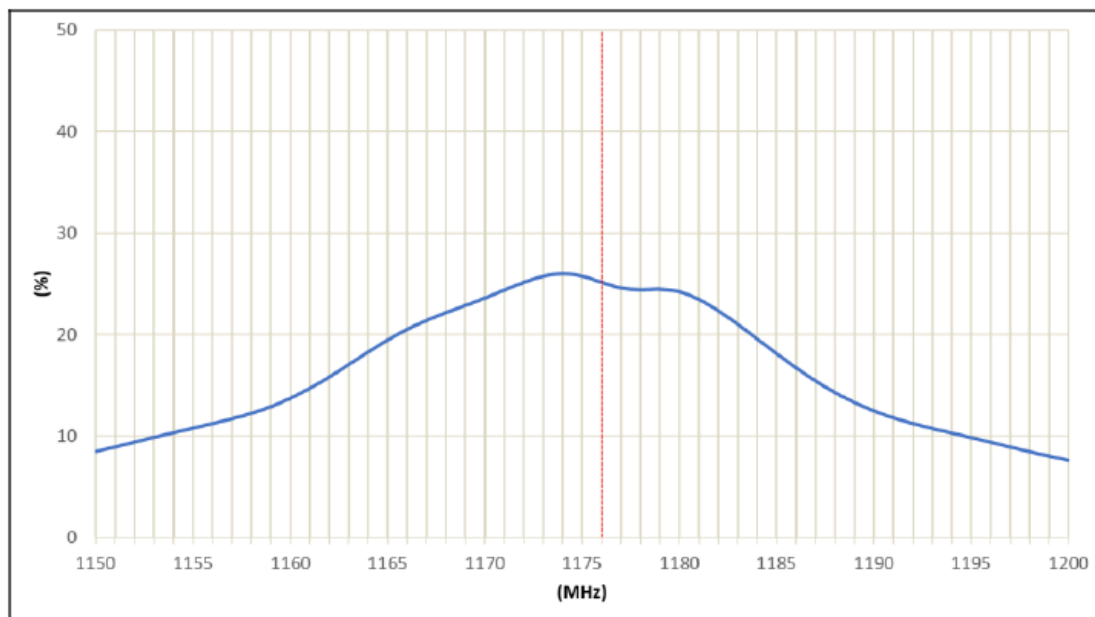


Efficiency (%)

L1 Band (1575.42 MHz & 1602 MHz)

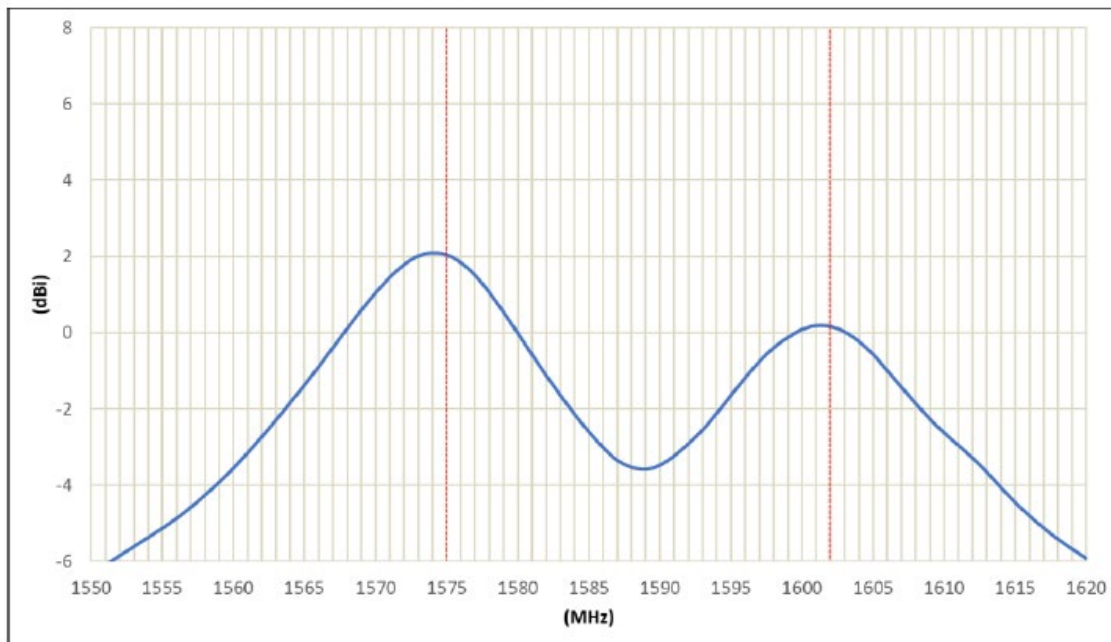


L5 Band (1176.45 MHz)

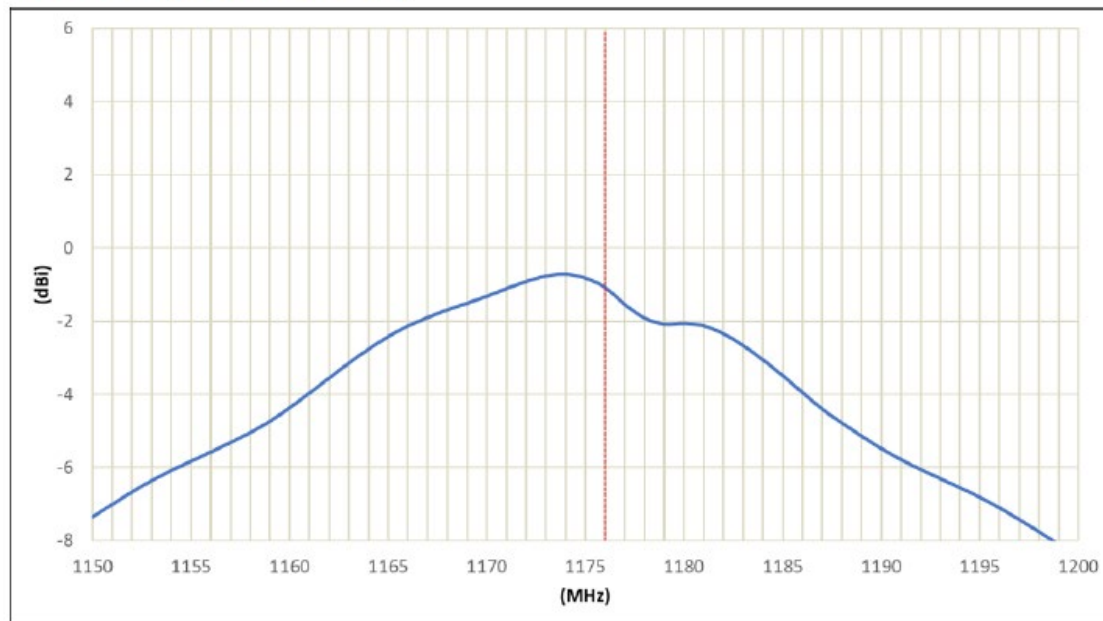


Peak Gain (dBi)

L1 Band (1575.42 MHz & 1602 MHz)



L5 Band (1176.45 MHz)



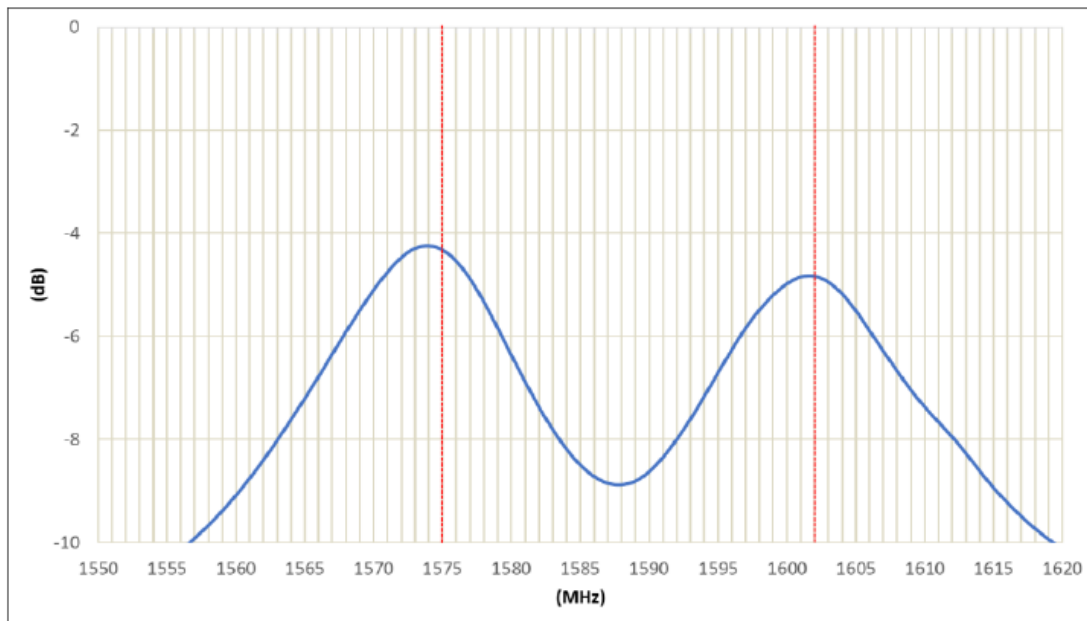
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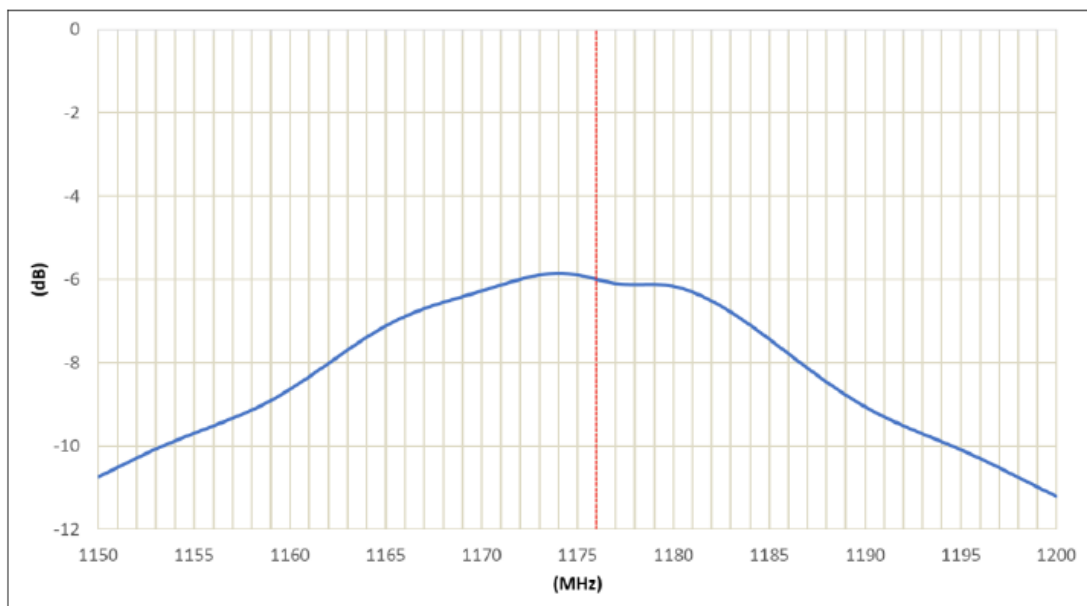


Average Gain (dB)

L1 Band (1575.42 MHz & 1602 MHz)

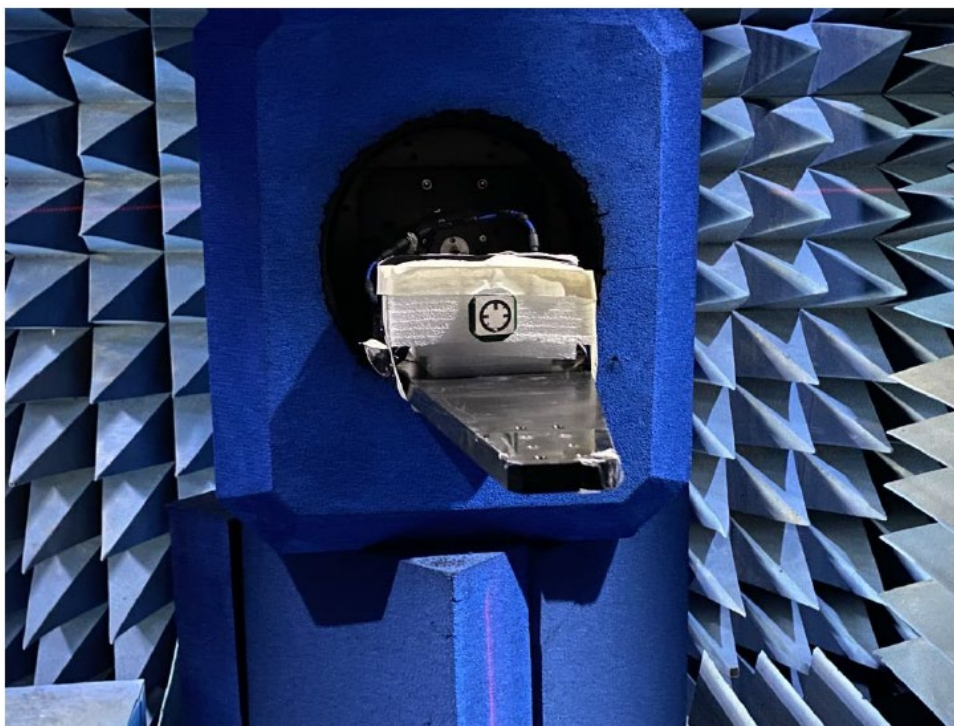


L5 Band (1176.45 MHz)

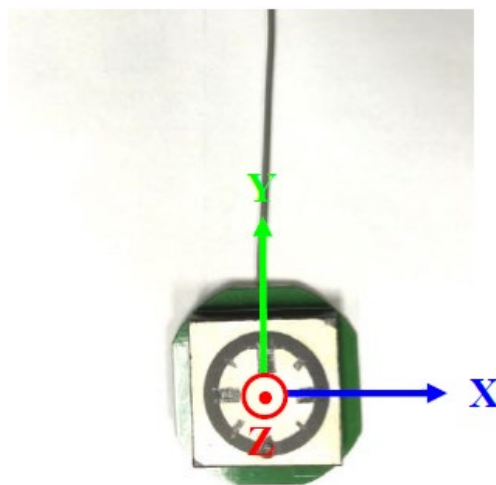


Antenna Radiation Pattern Measurement:

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



3D Radiation Patterns

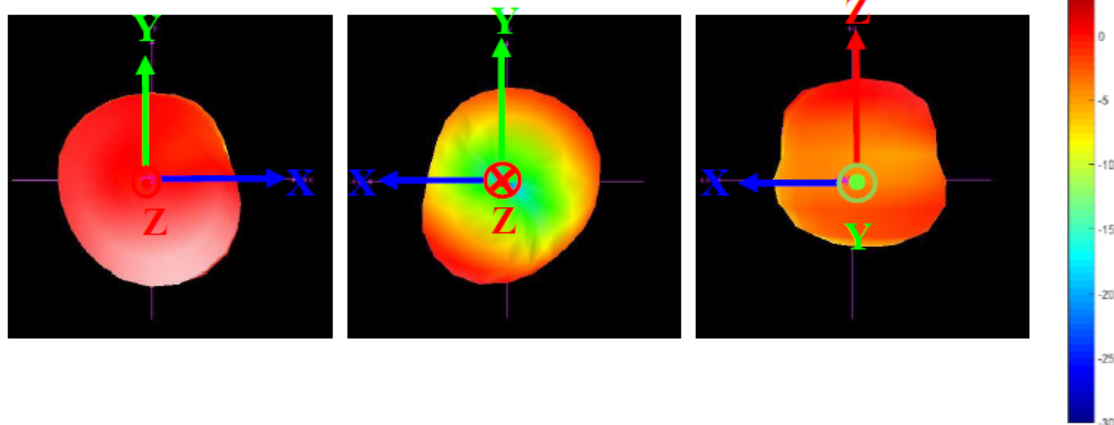


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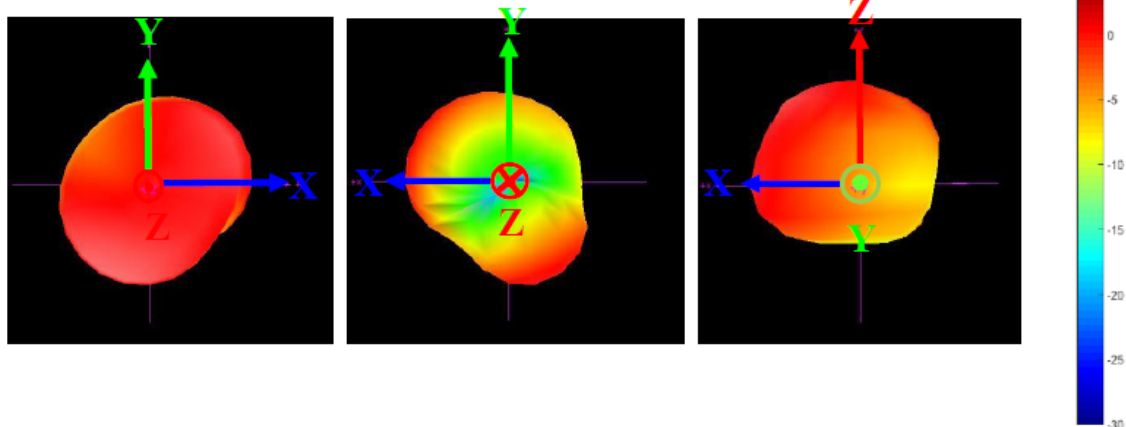
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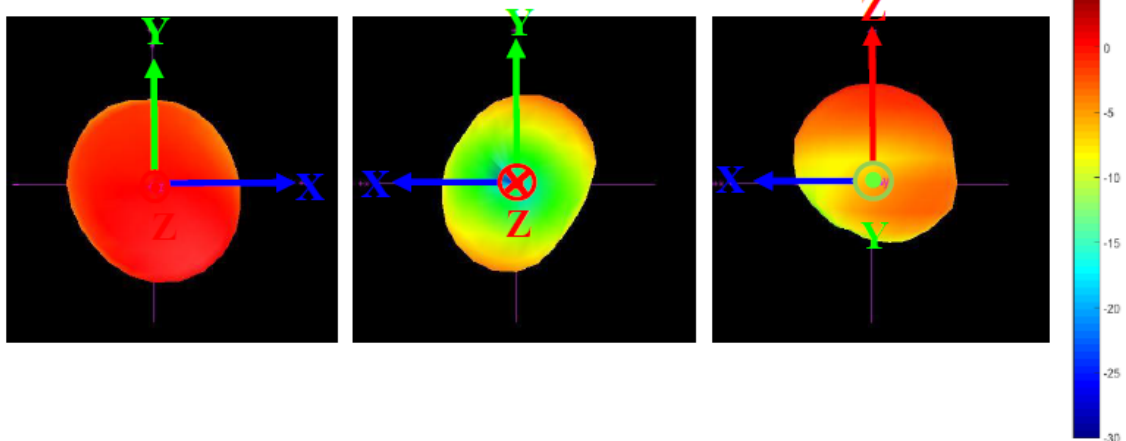
1575.42 MHz (unit: dBi)



1602MHz (unit: dBi)



1176.45 MHz (unit: dBi)



Packing

- (1) Unit Weight: 13 ± 1 (g)
- (2) Quantity: Each PE = 5 pcs
Each Outer Carton = 500 pcs



Carton Dimensions:

