

PB40DF GPS L1 & L2 Ceramic Patch Antenna(40 x 40 x 8 mm³)

Preliminary Engineering Specification

1. Product Number

H 2 P 1 3 6 1 A 2 B 0 1 0 0



2. Features

- *High Accuracy
- *Covering GPS L1/L2 band.
- *RoHS2.0 compliant.

3. Applications

- * Automotive telematics
- * Safety of life transportation
- * Marine
- * Navigation

4. Description

The PB40DF antenna is a high performance solution for high accuracy centimeter level tracking in telematics applications. The PB40DF is especially designed for precision dual frequency positioning GPS L1/L2, provides superior axial ratio.



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Prepared by : **Mina**

Designed by : **George**

Checked by : **Mike**

Approved by : **Herbert**

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DOCUMENT
NO.

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Pre.

5. Electrical Specifications

GNSS NAVIGATION ANTENNA

Navigation	GPS L2	GPS L1
Center Frequency(MHz)	1227.6	1575.42
Peak Gain(dBic)	3.8 Typ.	5.3 Typ.
Efficiency(%)	76.8	92
Axial Ratio at Zenith	< 3.0	< 2.0
VSWR	< 2.0	
Impedance(Ω)	50	
Polarization	RHCP	

MECHANICAL

Ceramic Dimension	GPS L2	GPS L1
	40 * 40 * 4 mm	25 * 25 * 4 mm
Ground plane	70 * 70 mm	

ENVIRONMENTAL

Operation Temperature	-40~+85 °C
Storage Temperature	-40~+85 °C



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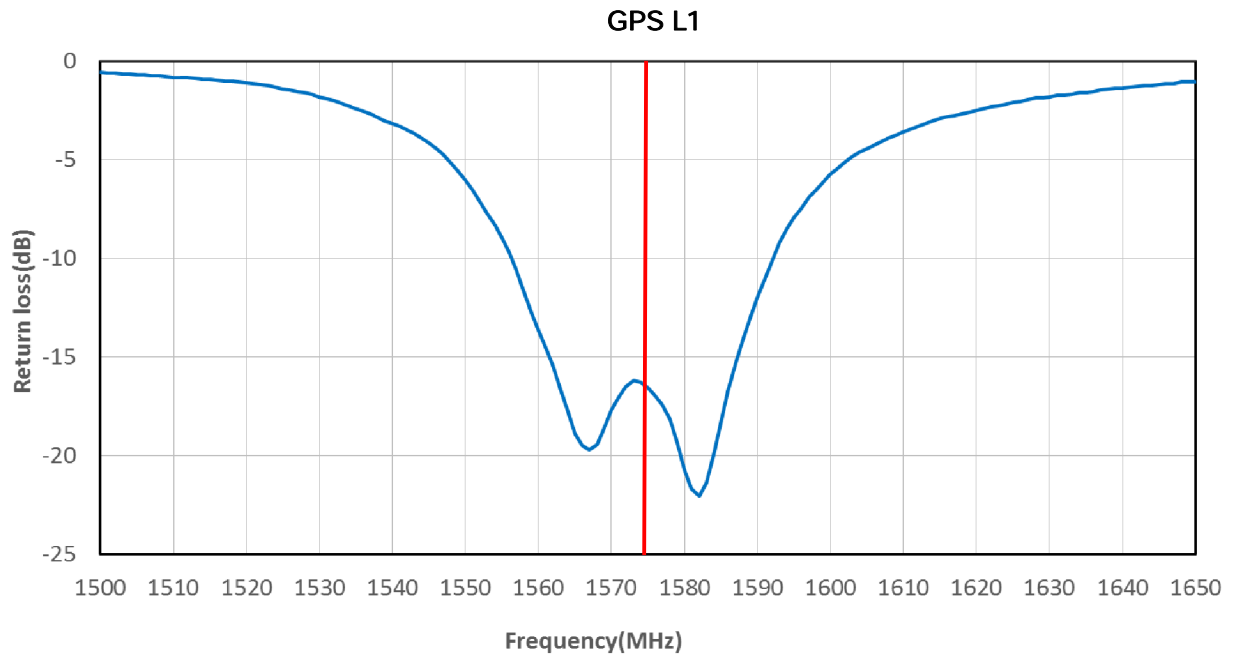
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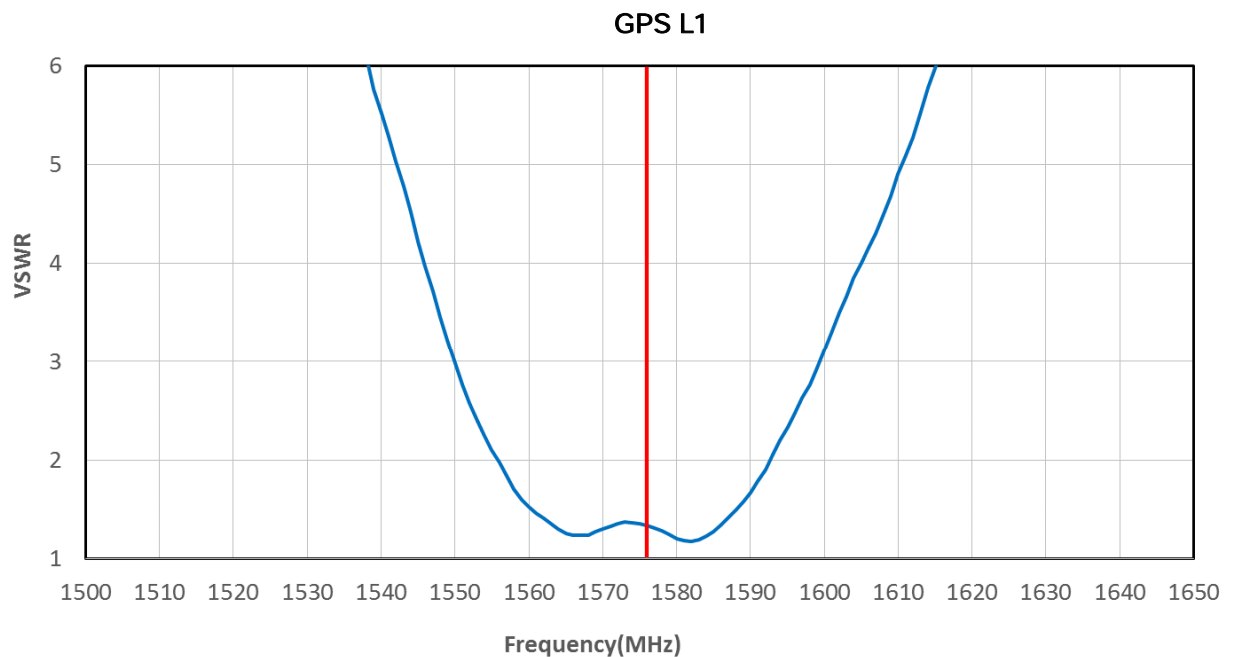
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6. GPS L1 Band Characteristics.

6.1 Return Loss



6.2 VSWR



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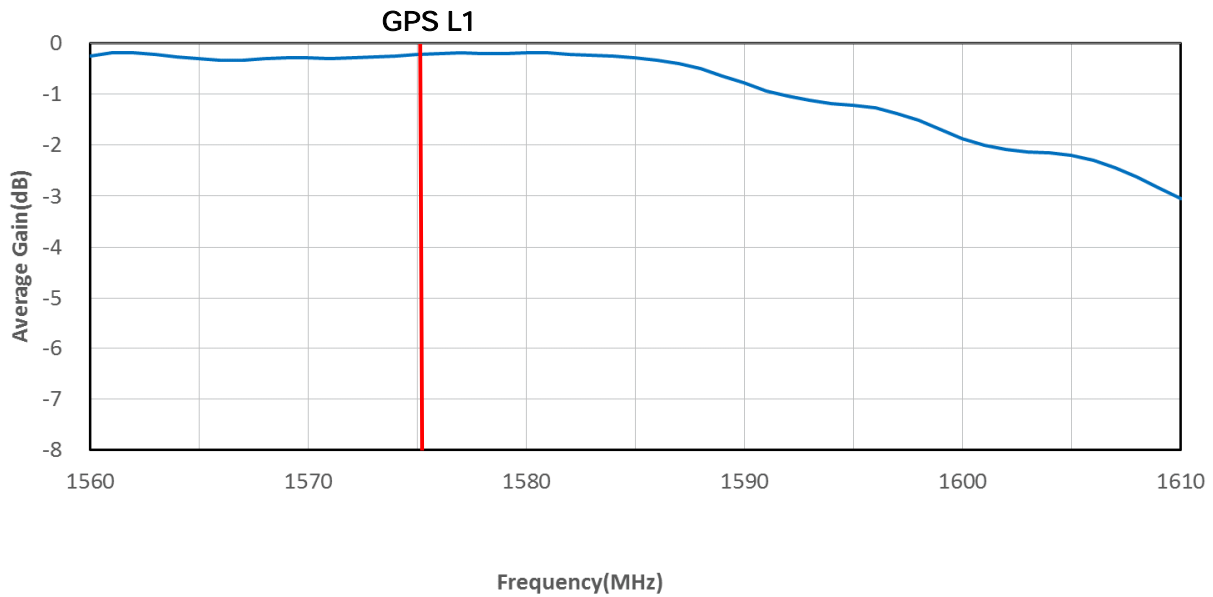
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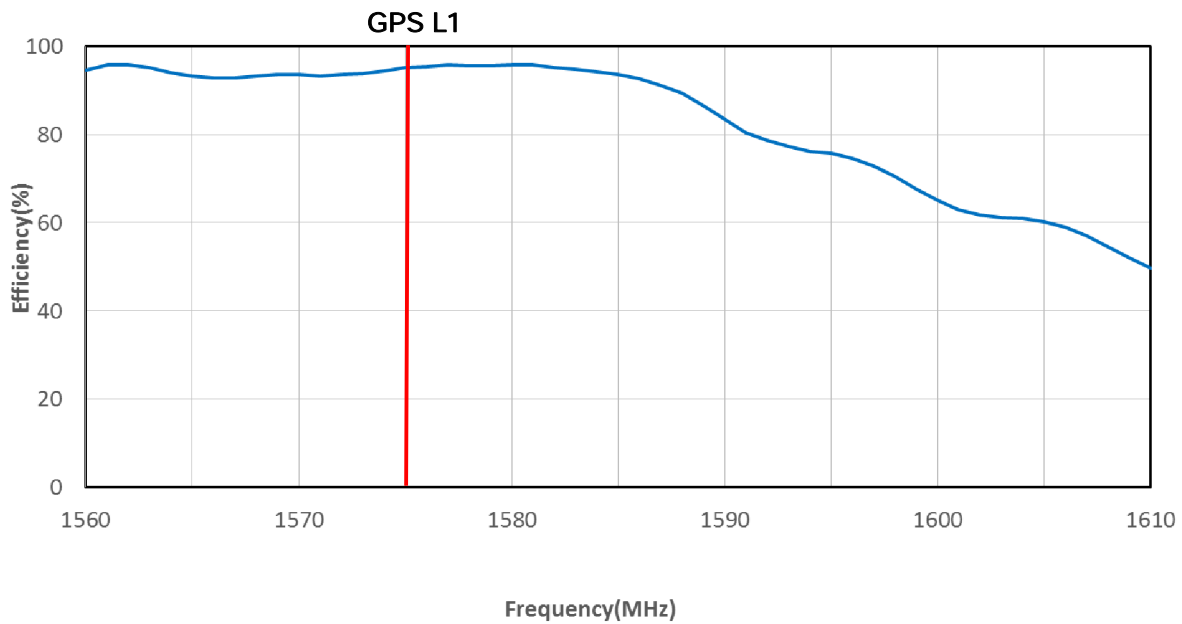
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6.3 Average Gain (Unit: dB)



6.4 Efficiency (%)



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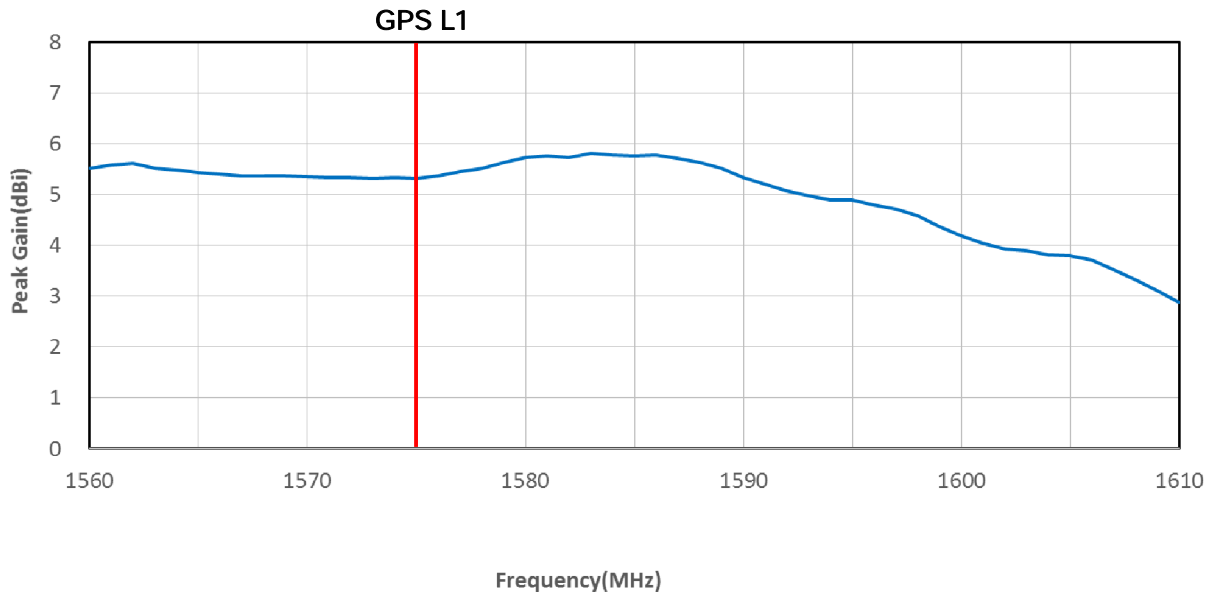
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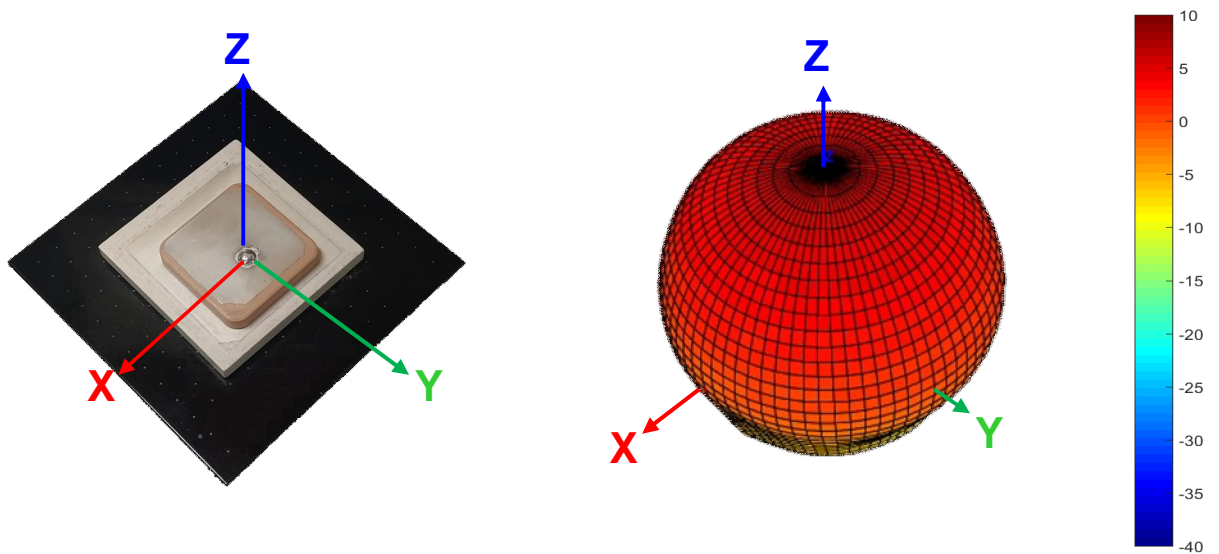
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6.5 Peak Gain (dBi)



6.6 Radiation Gain Pattern @1575.42MHz (Unit: dBi)



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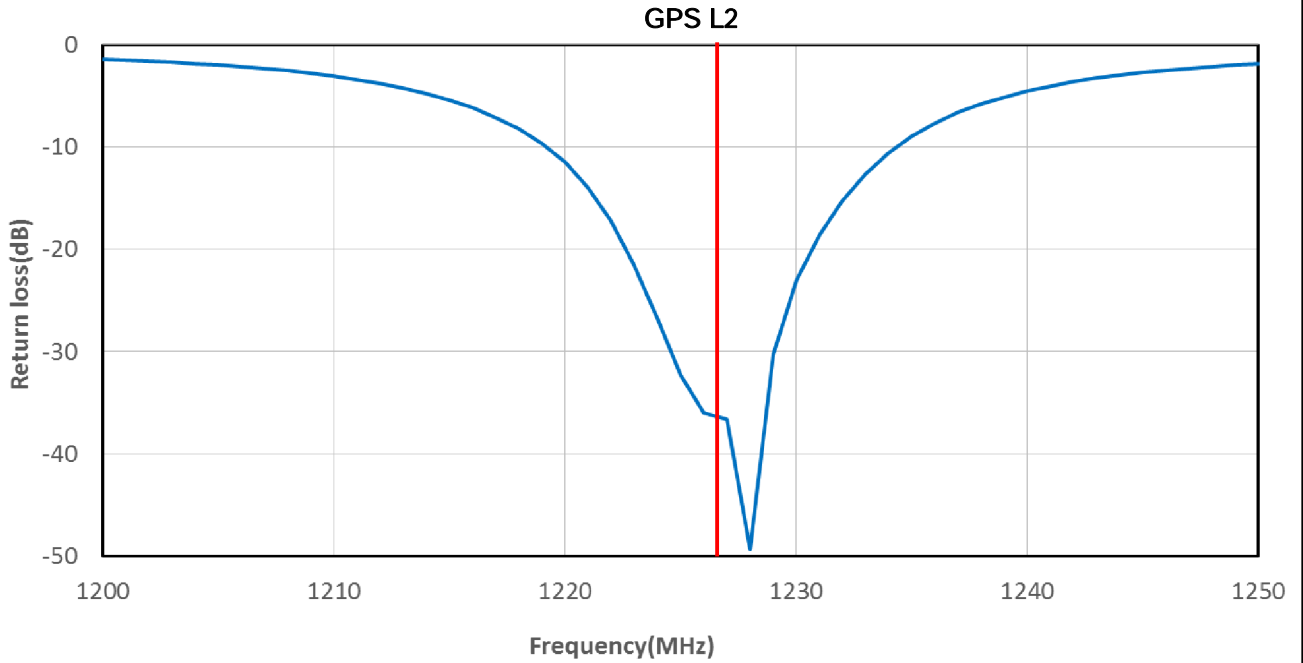
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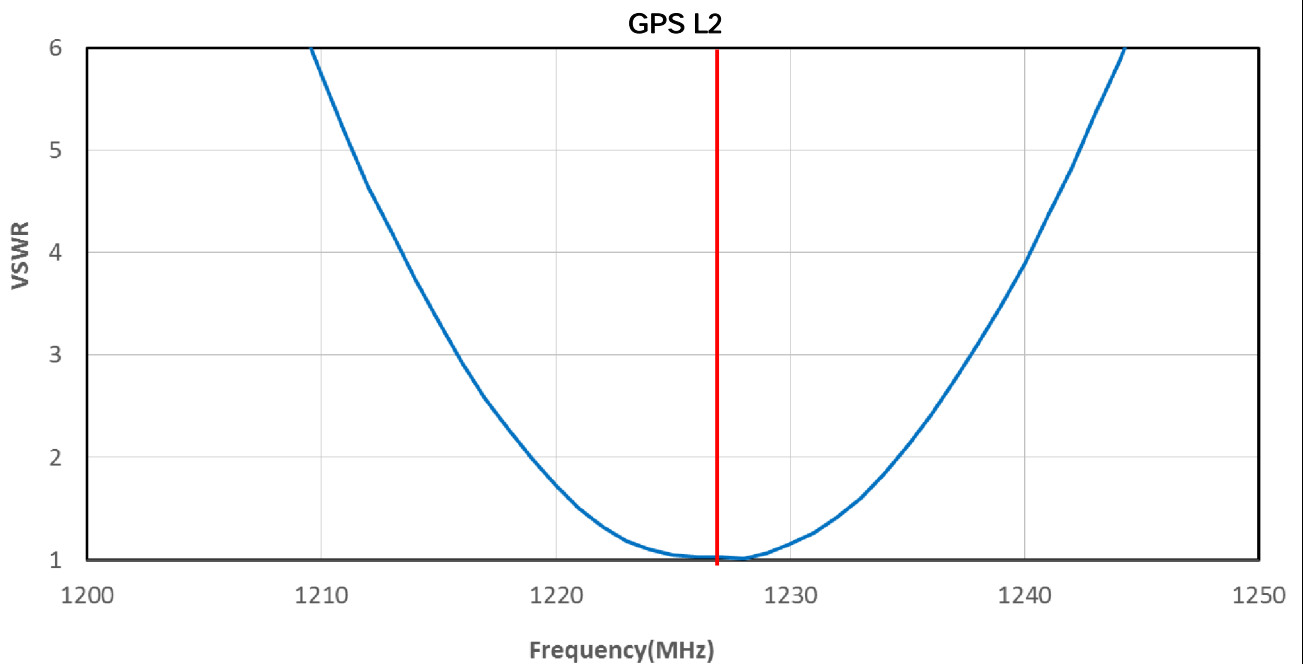
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7. GPS L2 Band Characteristics.

7.1 Return Loss



7.2 VSWR



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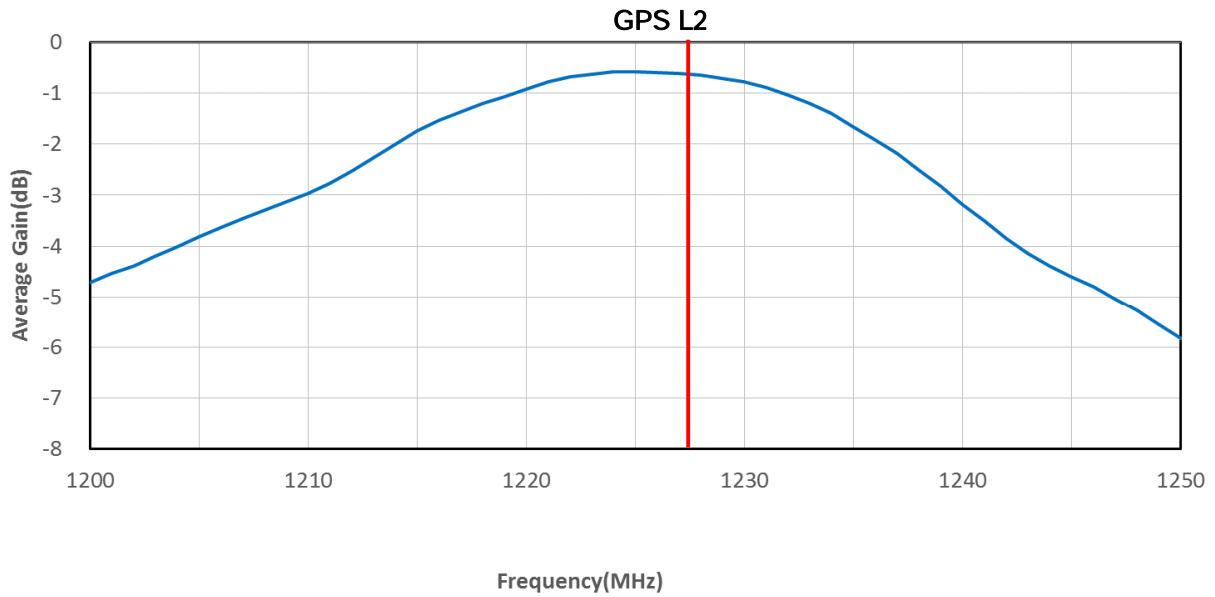
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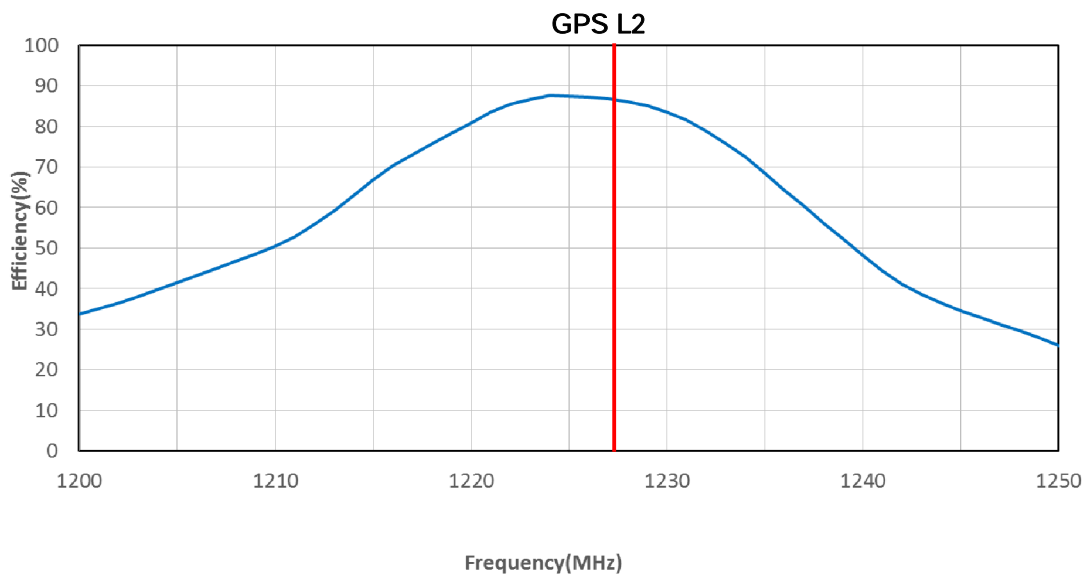
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7.3 Average Gain (Unit: dB)



7.4 Efficiency (%)



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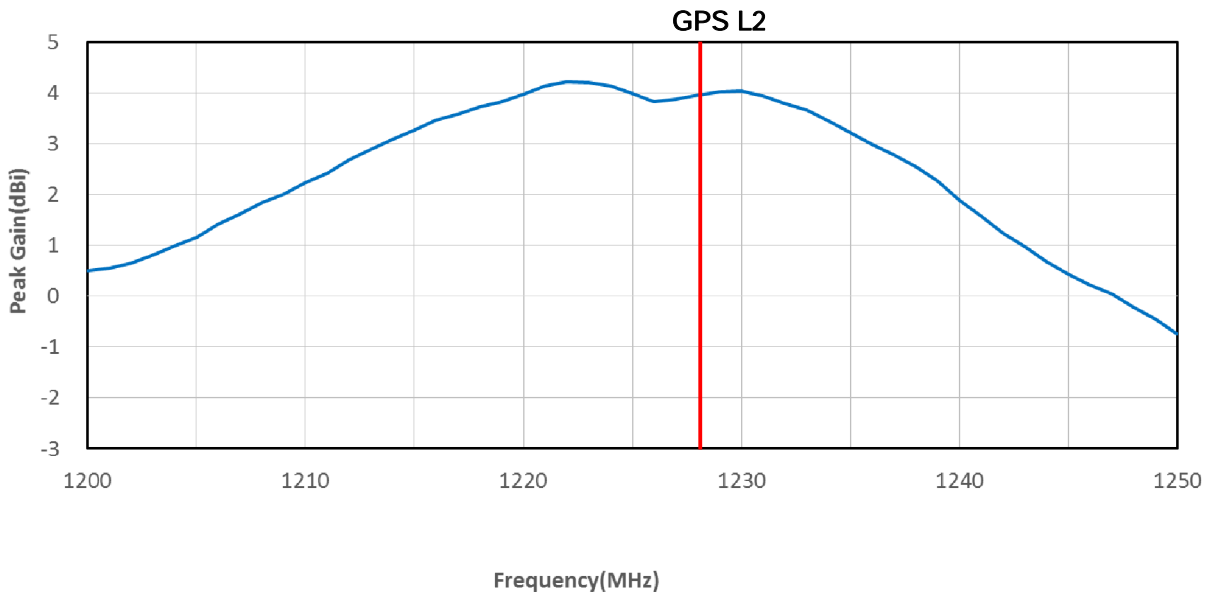
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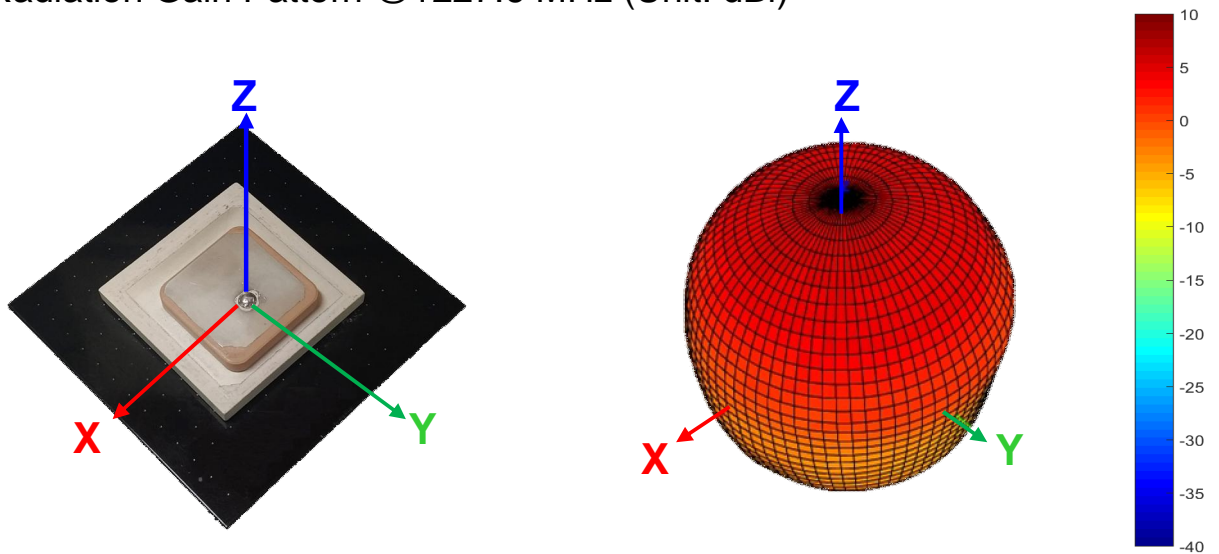
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7.5 Peak Gain (dBi)



7.6 Radiation Gain Pattern @1227.6 MHz (Unit: dBi)



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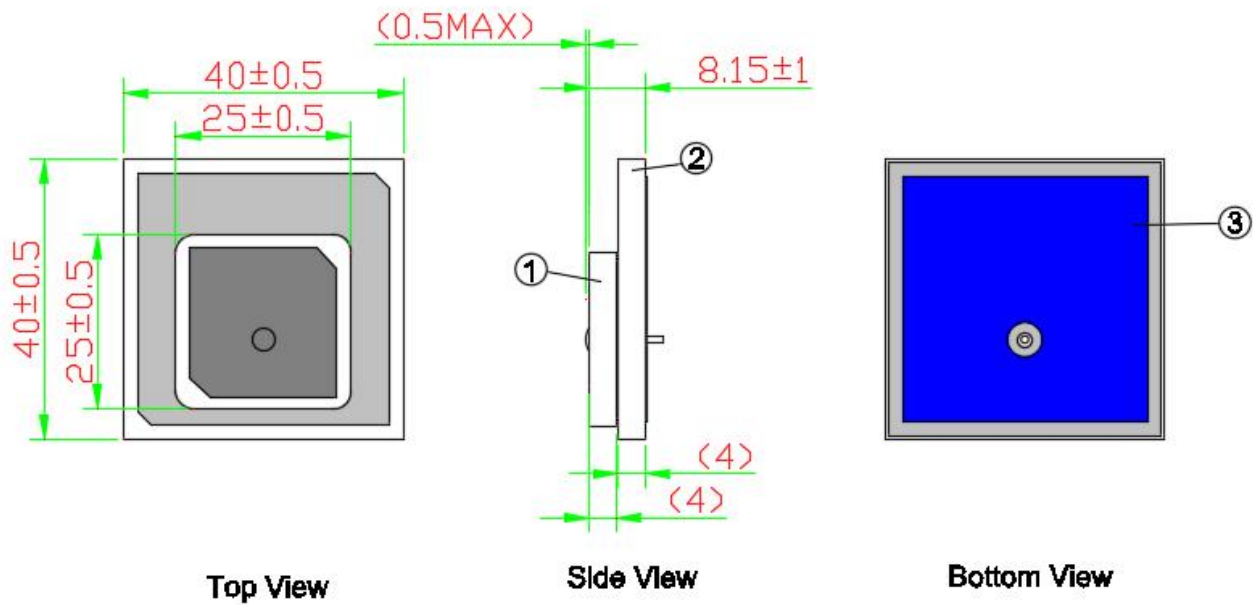
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8. Antenna Dimensions (Unit: mm)



	Name	Material	Finish	Q'TY
1	Patch (25*25*4mm)	Ceramic	Reddish Brown	1
2	Patch (40*40*4mm)	Ceramic	White	1
3	Adhesive			1



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