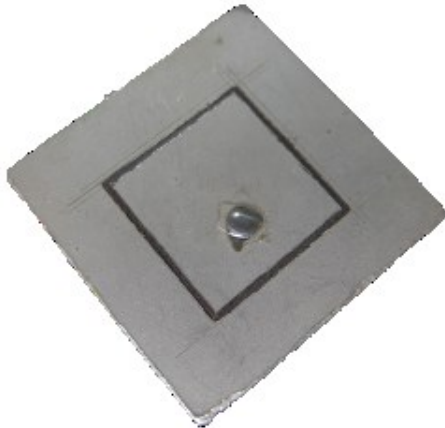


PB28D GNSS L1 & L5 Ceramic Patch Antenna(28 x 28 x 6 mm)

Preliminary Engineering Specification

1. Product Number

H 2 P 1 3 7 B B 1 A 0 1 0 0



2. Features

The PB28D can simultaneously receive the following signals:

- *GPS L1/L5
- *BeiDou (BDS) B1/B2
- *QZSS L1/L5
- *GLONASS G1/G3
- *Galileo (GAL) E1/E5
- *IRNSS L5

3. Applications

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

4. Description

The PB28D GNSS ceramic patch antenna supports multi-band simultaneously reception of GPS/GLONASS/BDS/Galileo/QZSS/IRNSS navigations, and as a result, achieves lane-level accuracy outdoors and much higher resistance to multipath and reflected signals in urban scenarios, as well as higher immunity to interference and jamming.



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Designed by : George

Checked by : Mike

Approved by : Herbert

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5. Electrical Specifications

GNSS NAVIGATION ANTENNA

Navigation	GPS L5/ GLONASS G3/ Galileo E5/ BDS B2/ QZSS L5/ IRNSS L5	GPS L1/ GLONASS G1/ Galileo E1/ BDS B1/ QZSS L1
Center Frequency(MHz)	1176.45	1575.42
Peak Gain(dBic)	3.8 Typ.	5.4 Typ.
Efficiency(%)	56	72
Axial Ratio at Zenith	< 3.0	< 2.0
VSWR	< 2.0	
Impedance(Ω)	50	
Polarization	RHCP	

MECHANICAL

Ceramic Dimension	28 * 28 * 6 mm
Ground plane	100 * 100 mm

ENVIRONMENTAL

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



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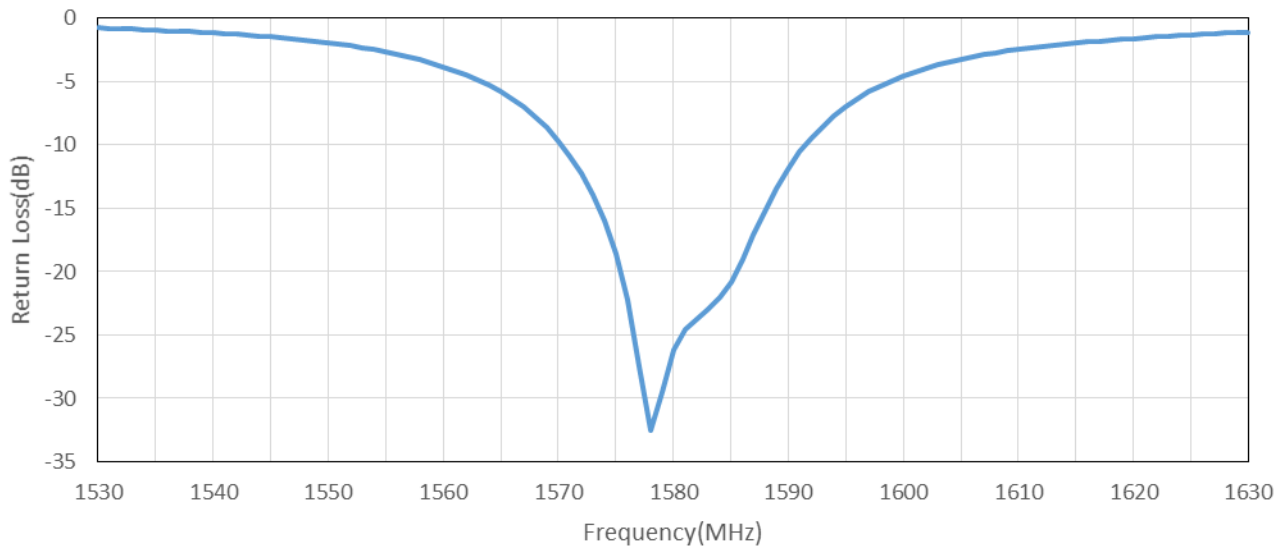
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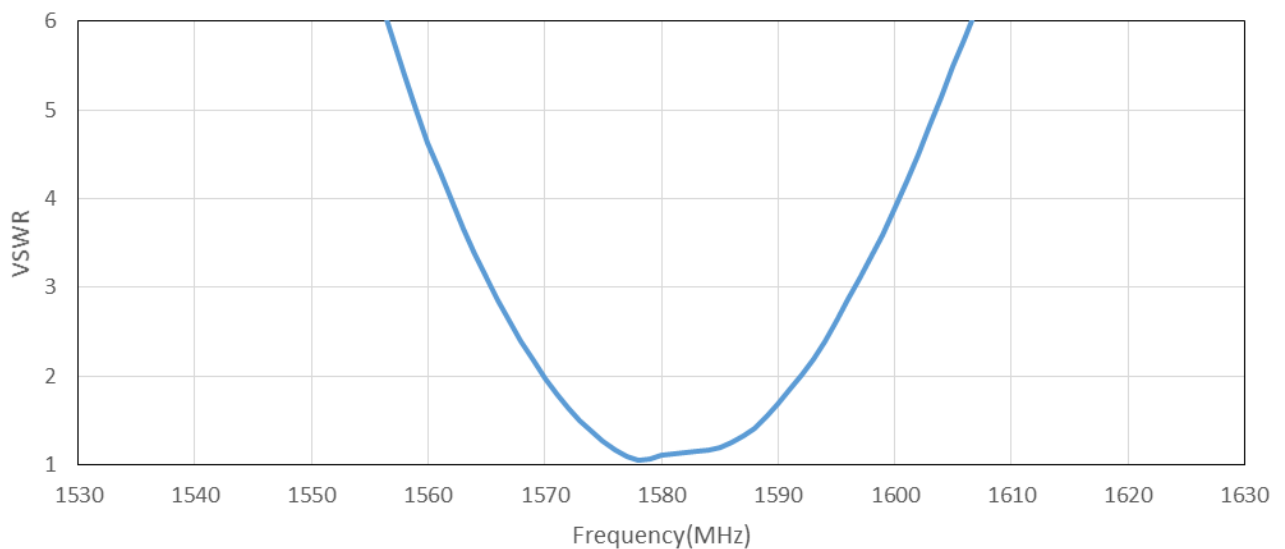
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6. GNSS L1 Band Characteristics.

6.1 Return Loss



6.2 VSWR



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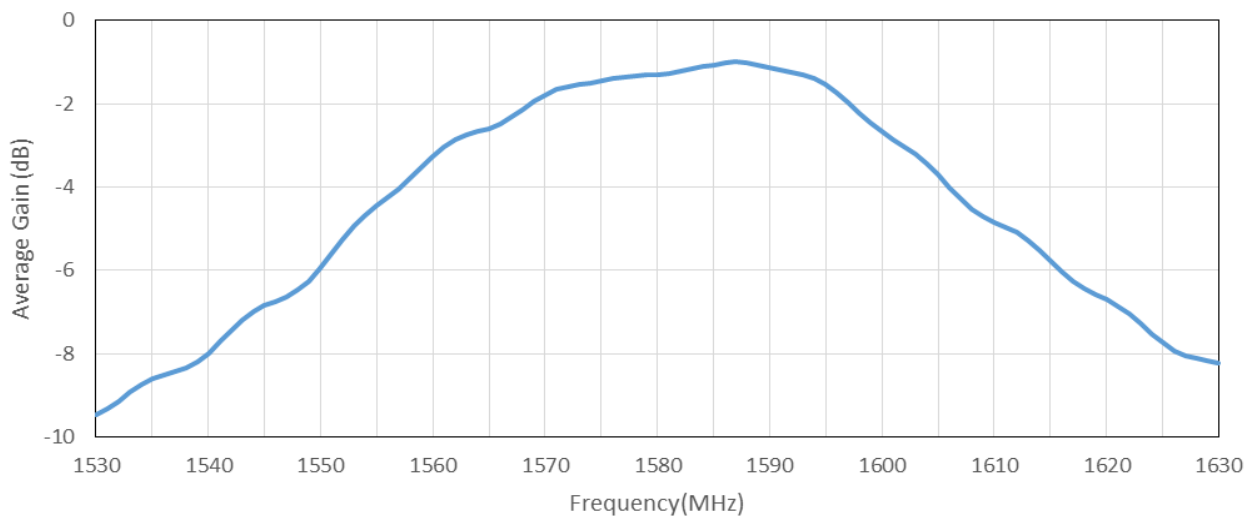
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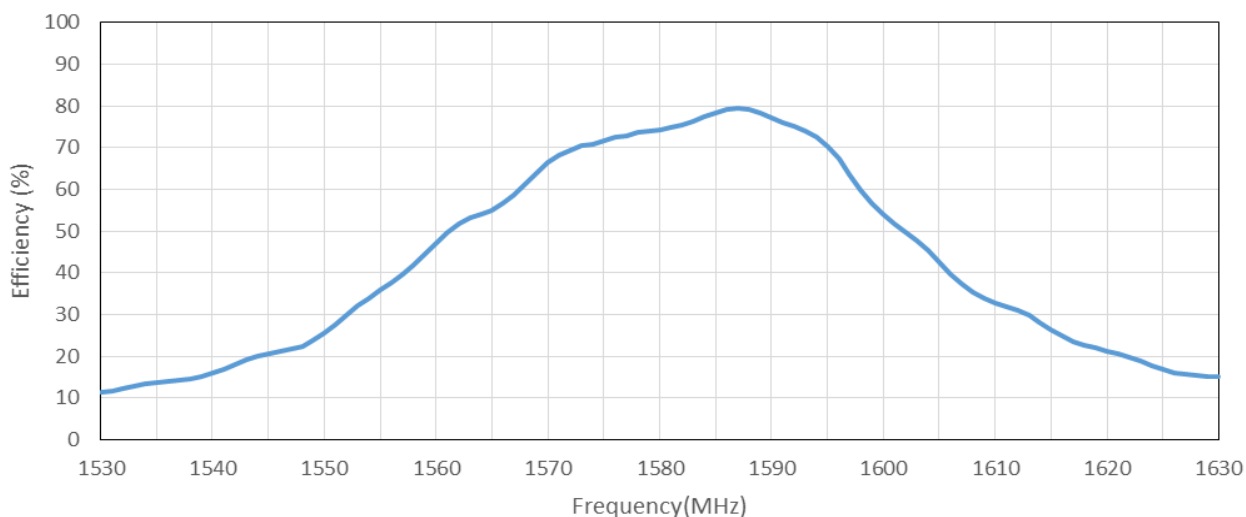
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6.3 Average Gain (Unit: dB)



6.4 Efficiency (%)



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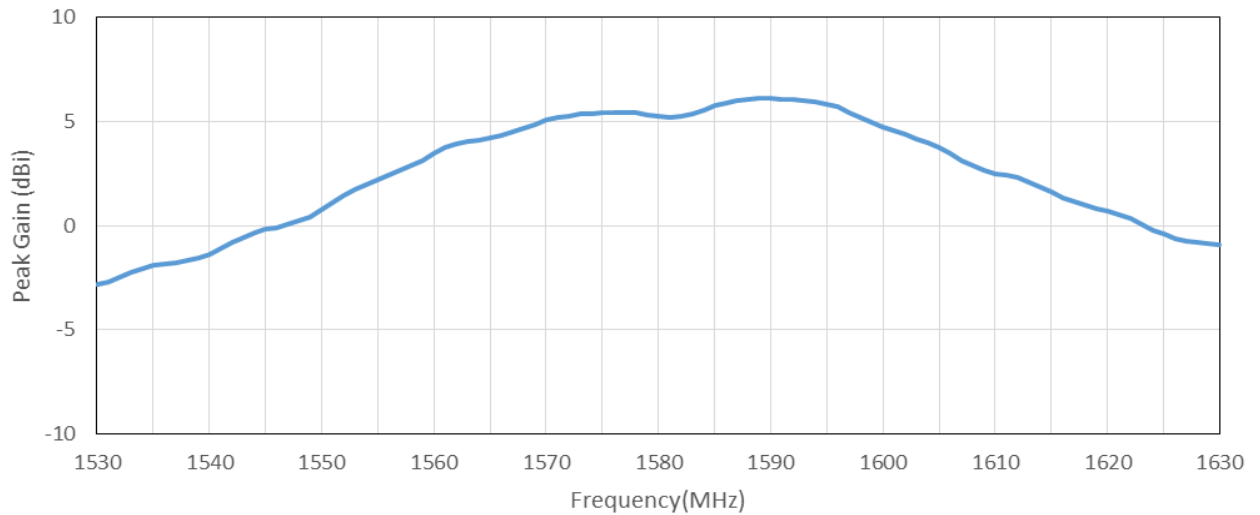
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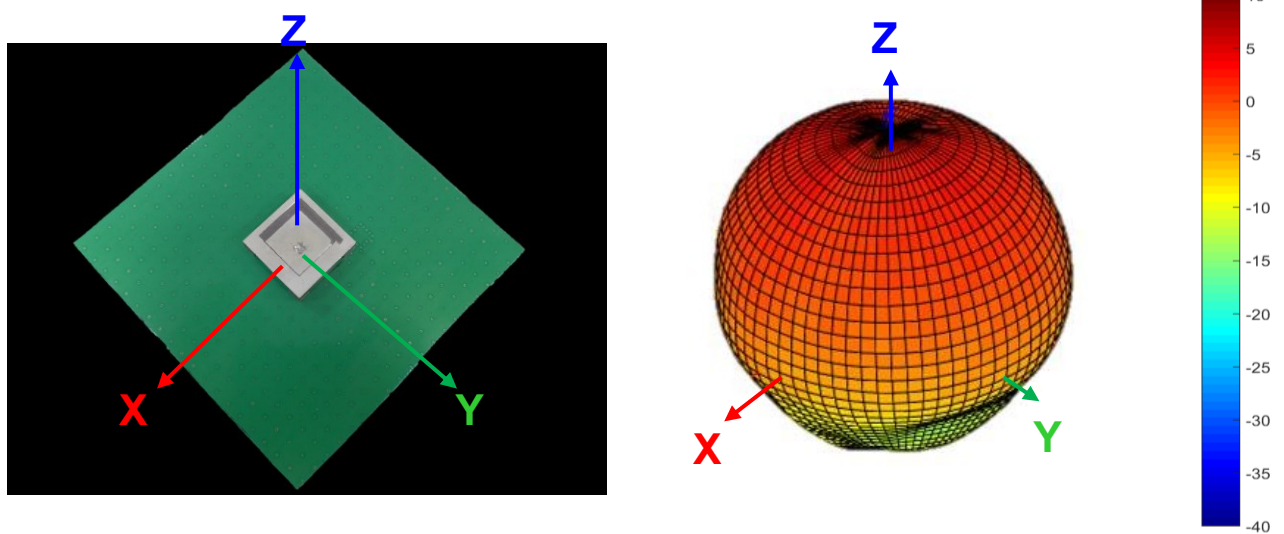
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6.5 Peak Gain (dBi)



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



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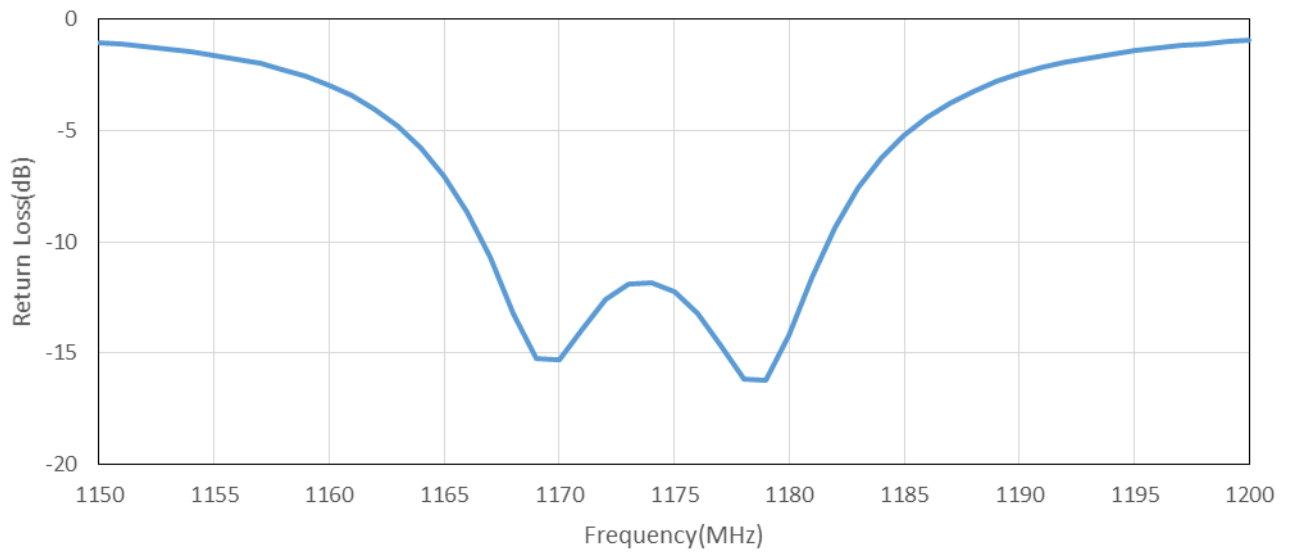
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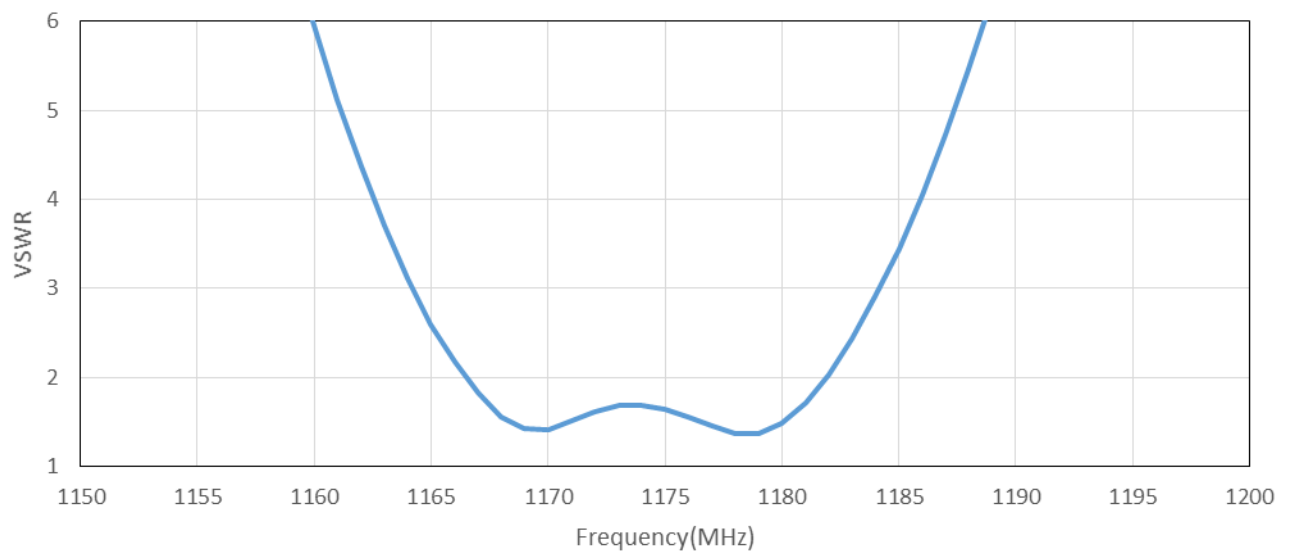
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7. GNSS L5 Band Characteristics.

7.1 Return Loss



7.2 VSWR



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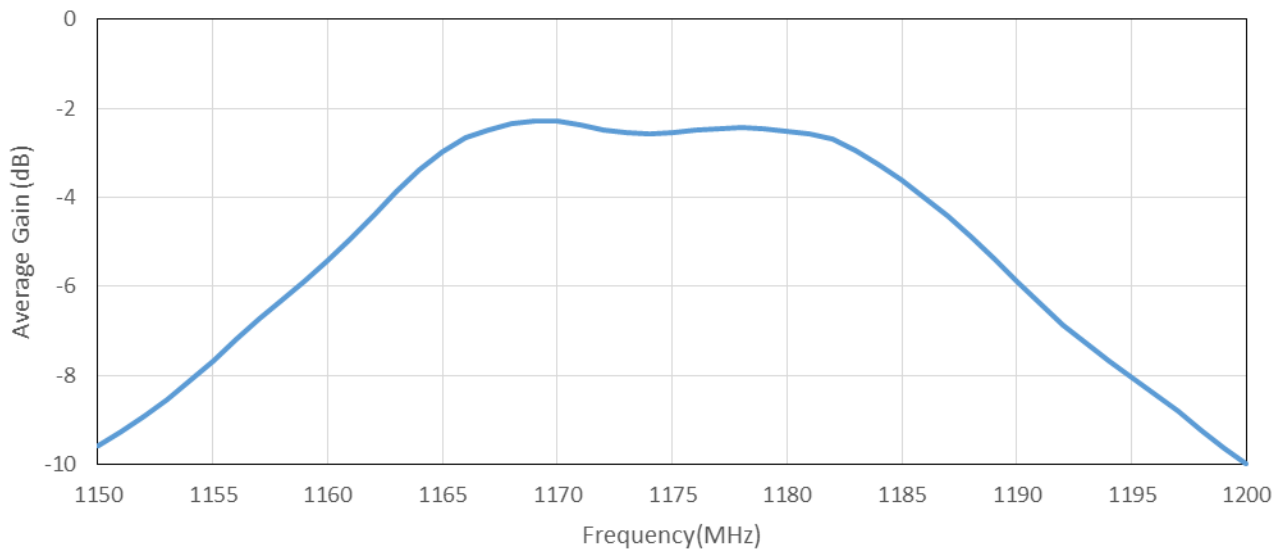
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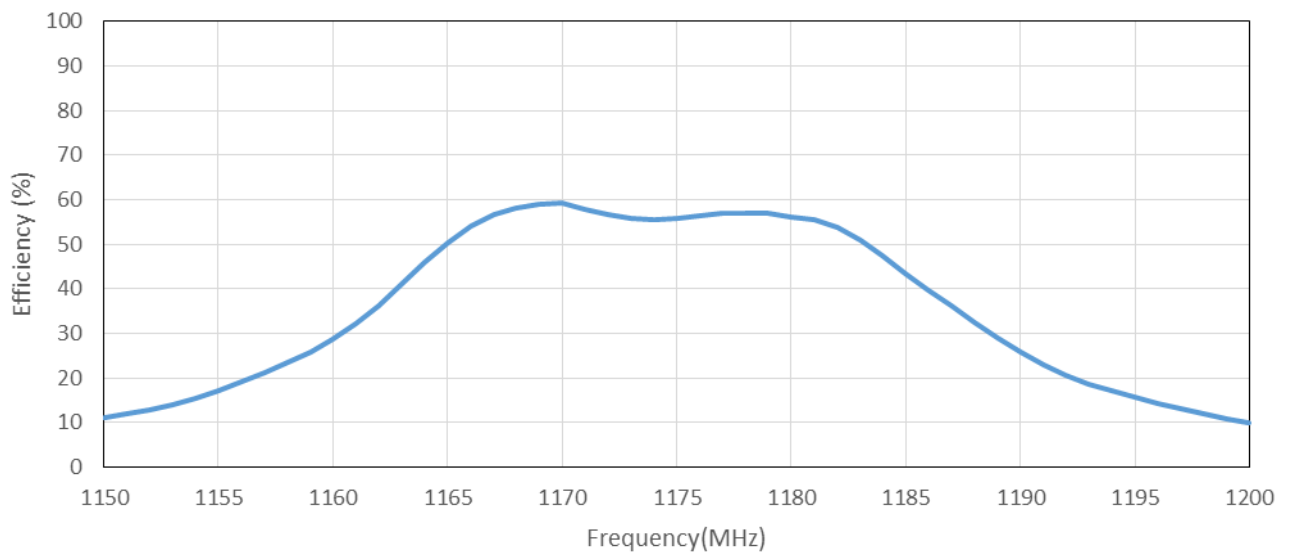
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7.3 Average Gain (Unit: dB)



7.4 Efficiency (%)



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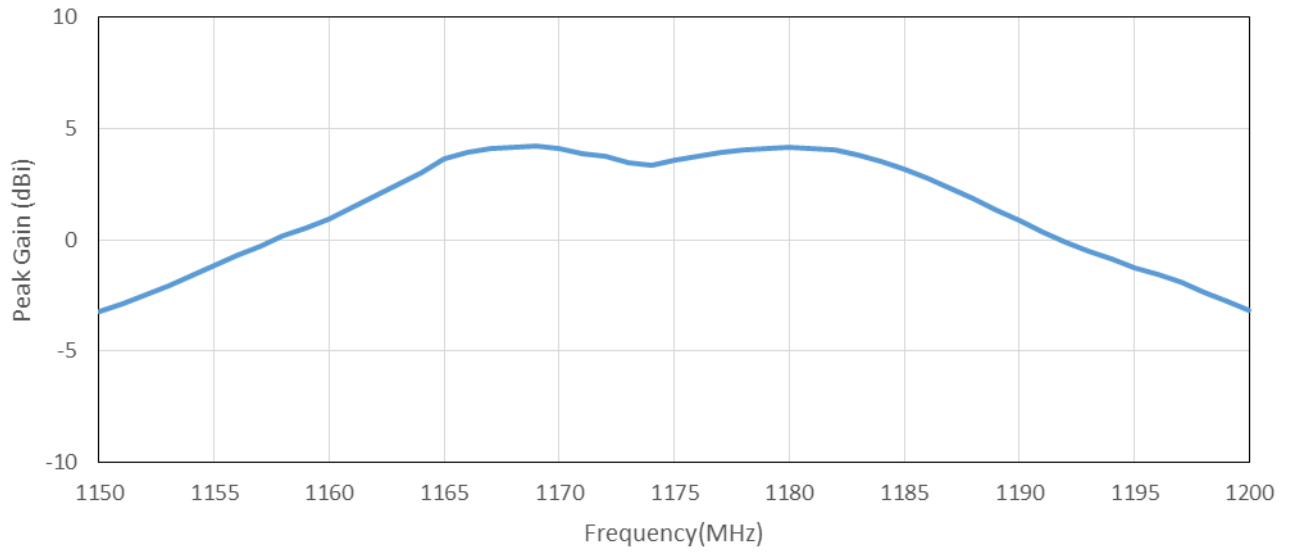
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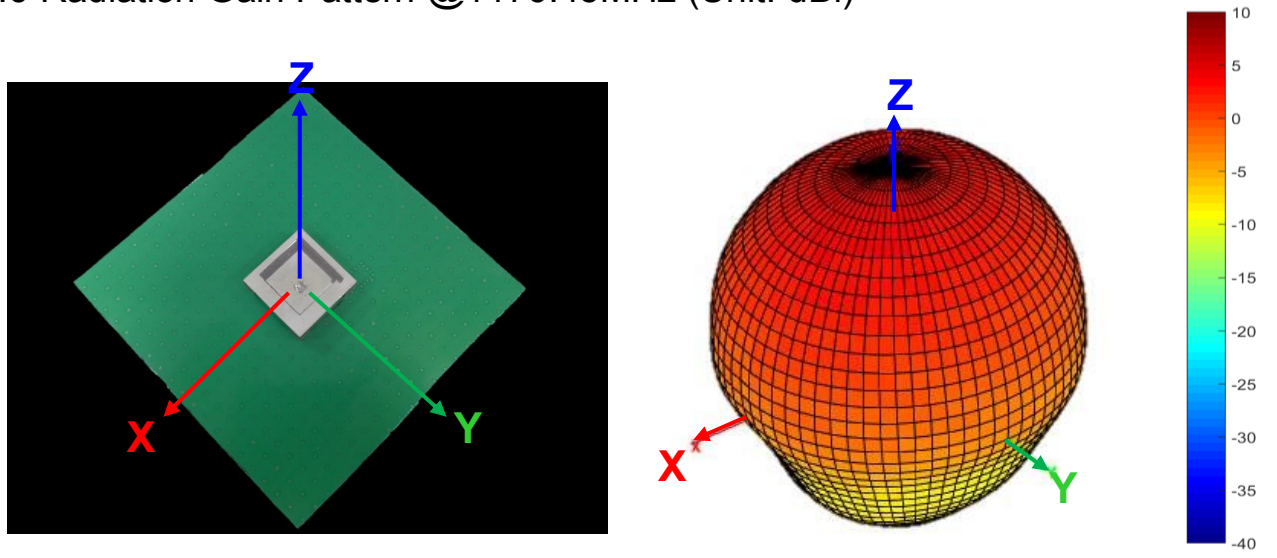
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7.5 Peak Gain (dBi)



7.6 Radiation Gain Pattern @1176.45MHz (Unit: dBi)



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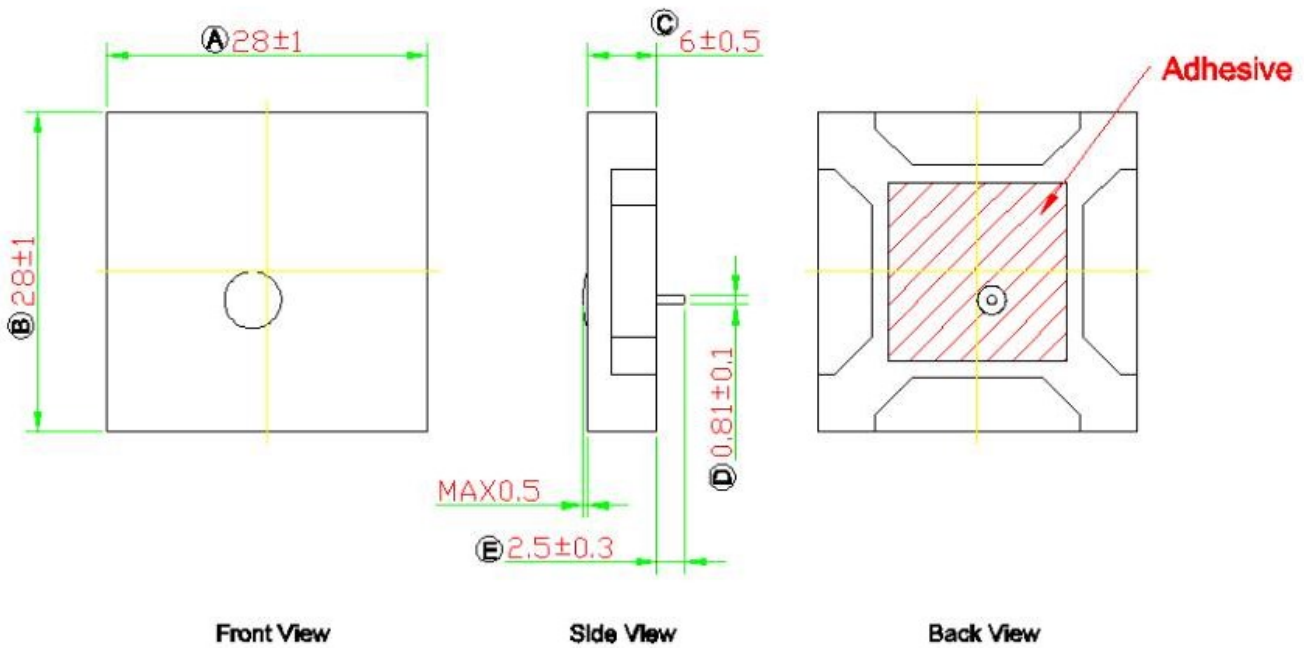
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8. Antenna Dimensions (Unit: mm)



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