

**Description:** 25253+35354 GPS L1&L5  
Stack Patch Antenna

**PART NUMBER: ANT2535BS0WTL1L5S**

**Features:**

- Size : Stack 25x25x3+35x35x4mm
- High radiation efficiency
- Combining GNSS and L5 bands
- Pin-solder process
- RoHS compliant



**Applications:**

- GPS system
- Navigation device
- Telematics box
- Fleet management

All dimensions are in mm / inches

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

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**Description:** 25253+35354 GPS L1&L5  
Stack Patch Antenna**PART NUMBER:** ANT2535BS0WTL1L5S**ELECTRICAL SPECIFICATIONS****Working Frequency**

L5 : 1176 MHz  
GNSS-Beidou : 1561 MHz  
GNSS-GPS : 1575 MHz  
GNSS-Glonass : 1602 MHz

**Gain(Peak)**

L5: 2.3 dBic  
GNSS Beidou : 3.7 dBic  
GNSS GPS : 4.1 dBic  
GNSS Glonass : 4.5 dBic

**Gain(Average)**

L5: -1.13 dB  
GNSS Beidou : -1.82 dB  
GNSS GPS : -1.59 dB  
GNSS Glonass : -1.36 dB

**Polarization**

RHCP

**Axis Ratio**

L5  $\leq$  5 dB  
GNSS  $\leq$  6 dB

**Impedance**50  $\Omega$ **Operating Temperature**

- 40 ~ 85 °C

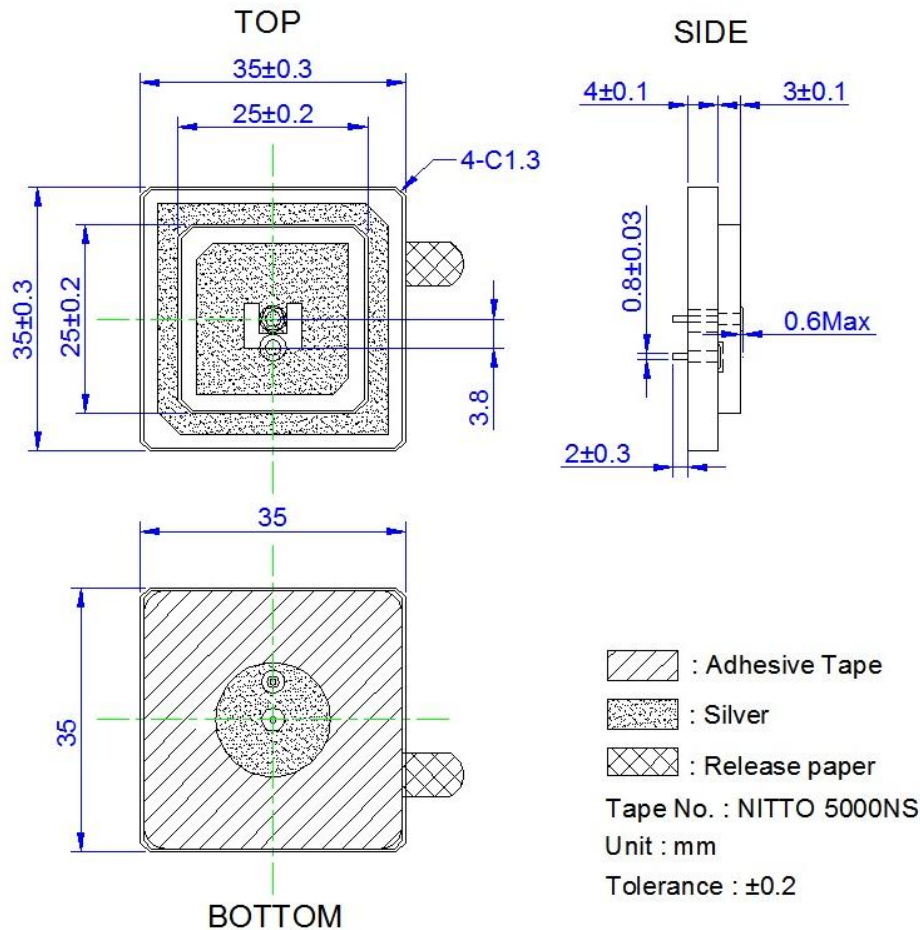
**NOTE**

1. Based on 70×70 mm<sup>2</sup> square ground plane.
2. Centre frequency will be offset to working frequency while changes of customer's housing and ground plane.

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**MECHANICAL DRAWING**



Position	Dimension	Working Band	Feed
Upper	25x25x3 mm	GNSS (1561+1575+1602MHz)	Single Feed
Bottom	35x35x4 mm	L5 (1176MHz)	Single Feed

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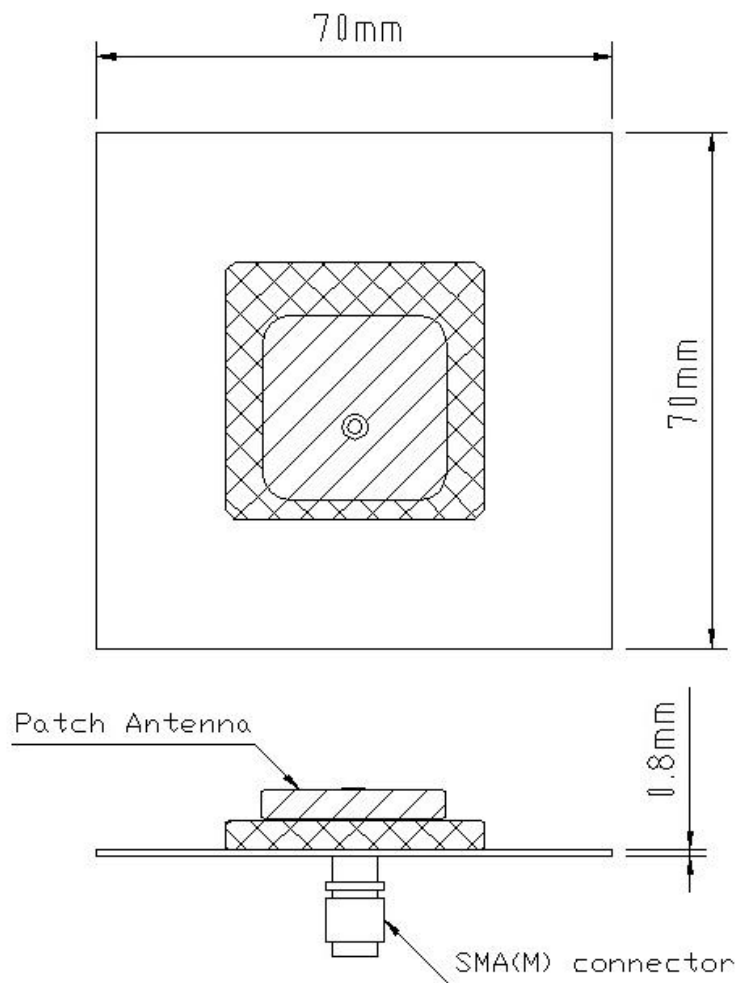
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## REFERENCE DESIGN OF EVALUATION BOARD



**Ground Plane Size: 70x70 mm<sup>2</sup>**

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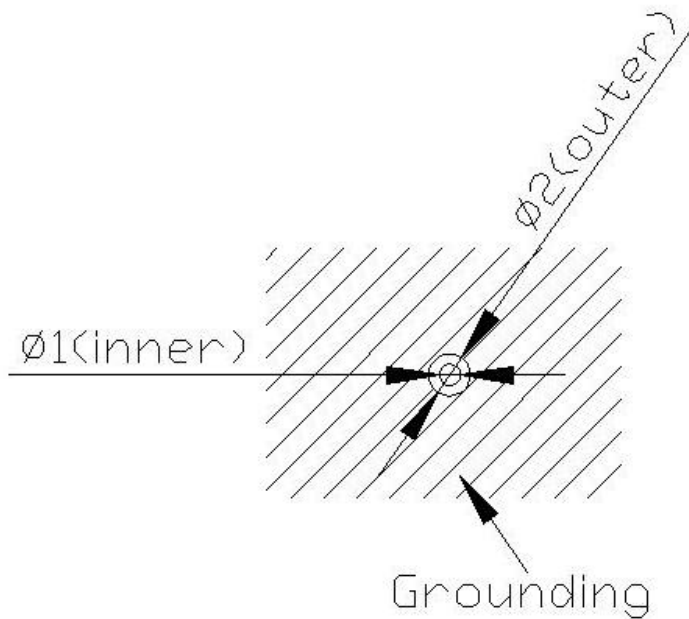
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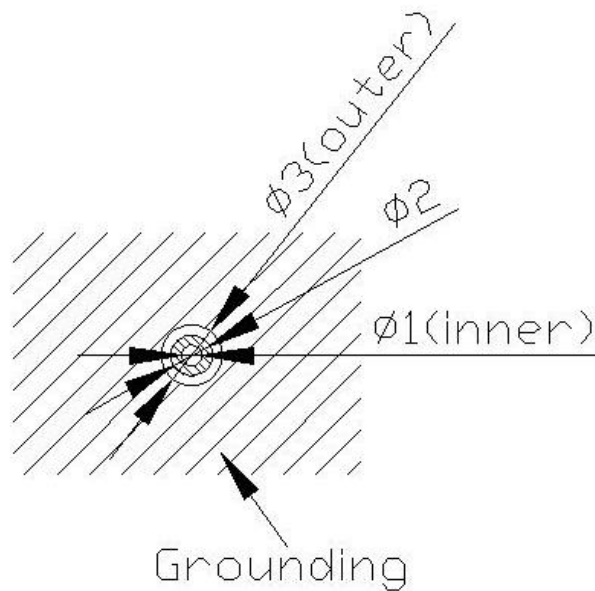
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## FOOTPRINT

### Top Layer



### Bottom Layer



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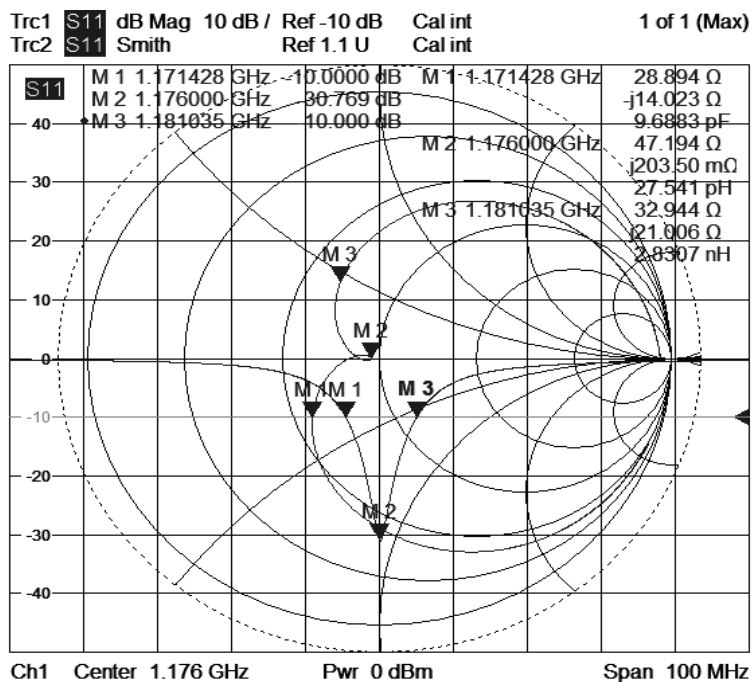
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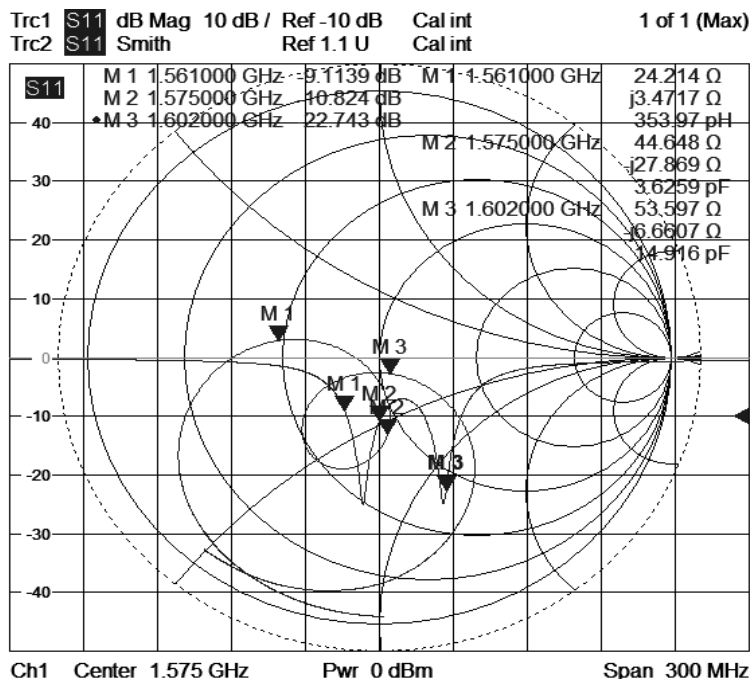
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**RETURN LOSS**

**L5**



**GNSS**



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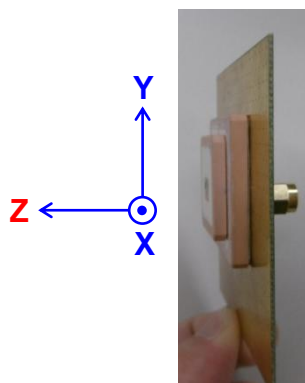
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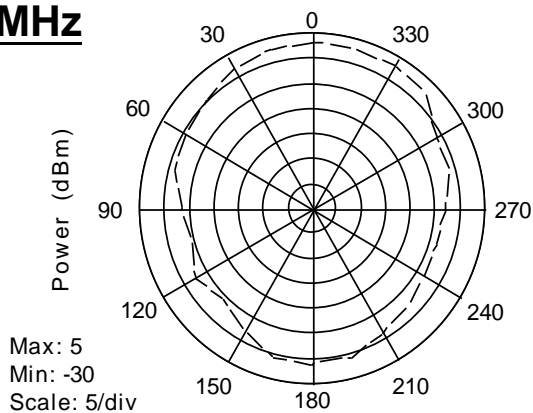
**PART NUMBER:** ANT2535BS0WTL1L5S

**RADIATION PATTERN**

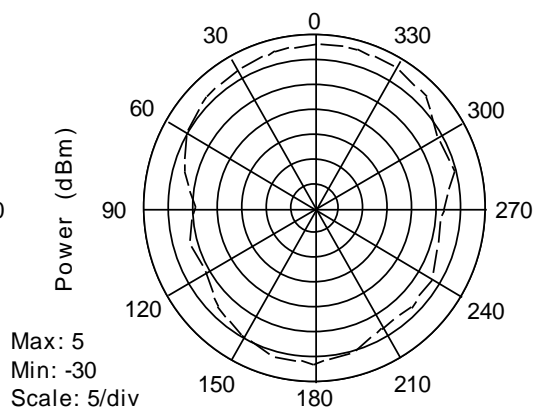


Evaluation board and XYZ direction

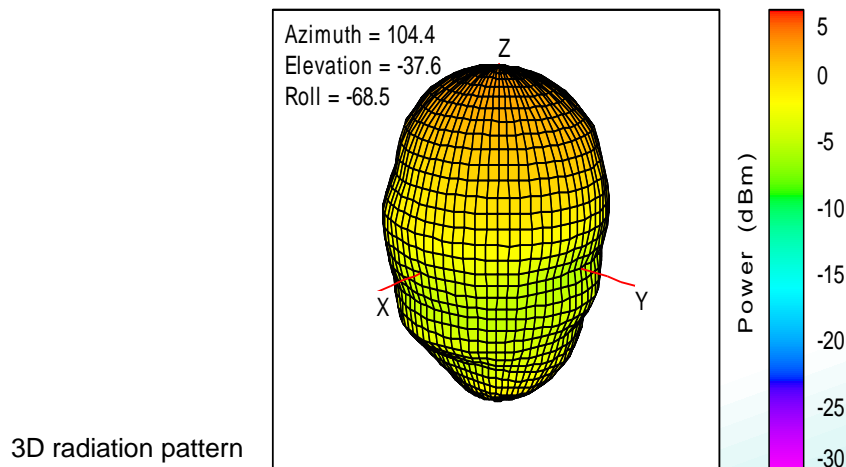
**L5-1176MHz**



2D x-z plane pattern



2D y-z plane pattern



3D radiation pattern

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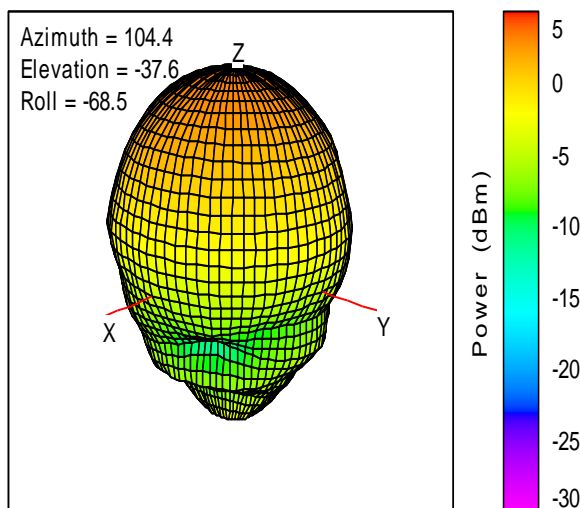
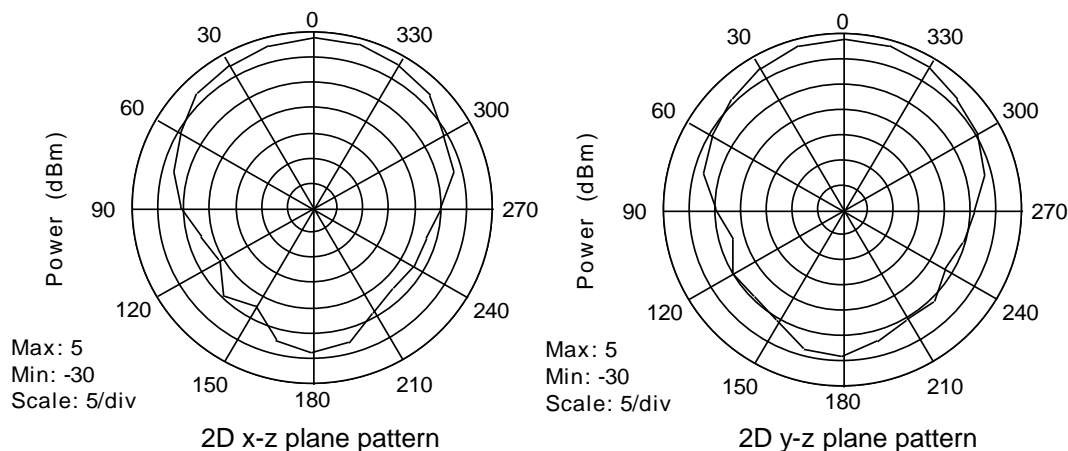
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## RADIATION PATTERN

### GNSS – 1561MHz



3D radiation pattern

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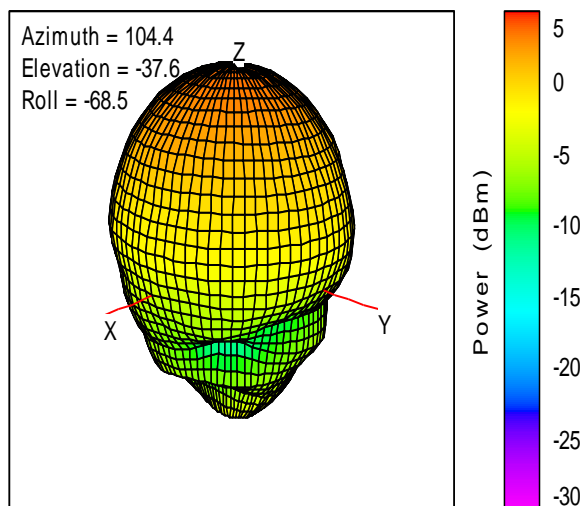
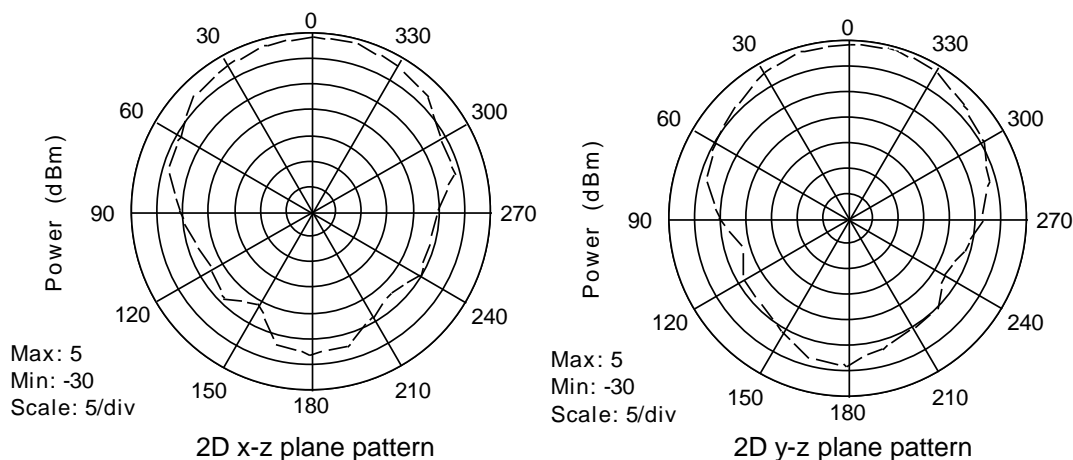


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**RADIATION PATTERN**

**GNSS – 1575MHz**



3D radiation pattern

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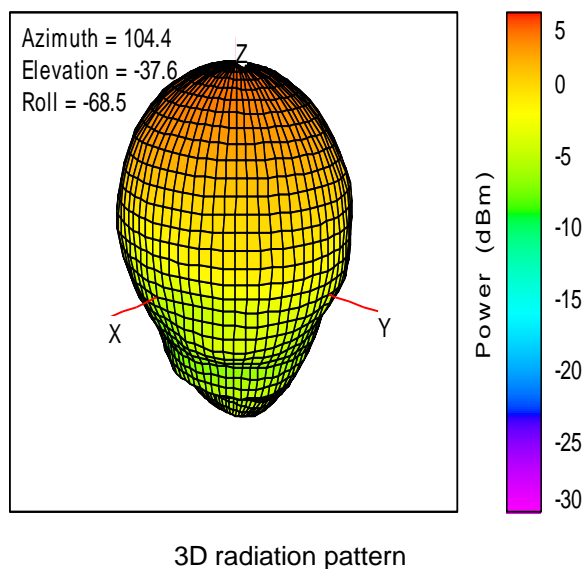
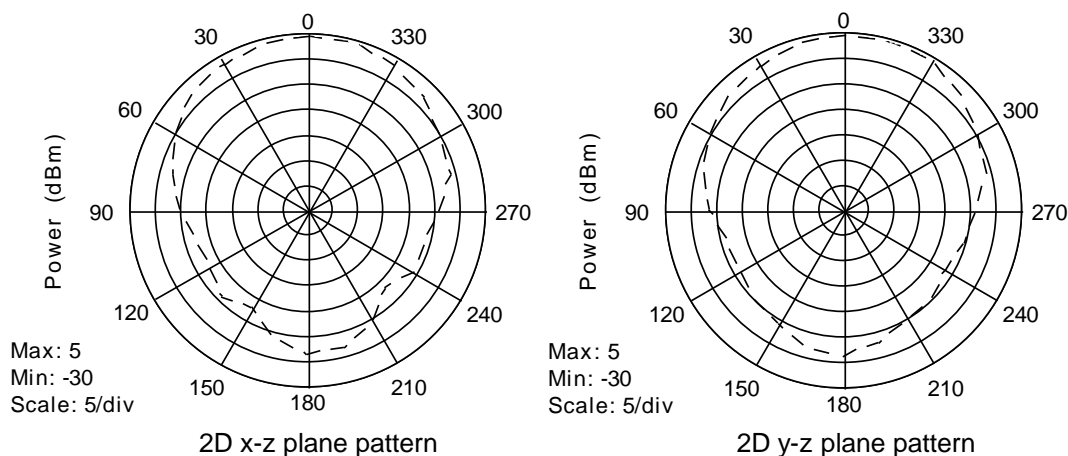
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## RADIATION PATTERN

### GNSS – 1602MHz



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## REVISION HISTORY

Revision	Date	Description
Version 1	Oct. 26, 2020	- New issue

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 **RoHS**  
Compliant

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