



**Product Name:** EG-24W Series\_ External One Port GNSS Antenna

**Part Number:** EG-24W-AC-N01

**Features:**

- GPS 1.57542GHz Supporting
- Robust Enclosure, IP67 Waterproof Resistant
- Cable Length & Connector are customizable
- RoHS & REACH Compliant

**Applications:**

- Automotive Navigation
- For all GPS applications with networking such as sensor, sonar multi-function gauge, etc.



# External One Port GNSS Antenna

## MODEL: EG-24W-AC-N01

WI-RD-D-273 V1.0

### I. Specifications:

| Category                           | Specifications                                |
|------------------------------------|---|
| <b>Passive Antenna performance</b> |   |
| Application Band                   | GPS   |
| Frequency (MHz)                    | 1575.42                                       |
| Efficiency (%)                     | 69.66   |
| Average Gain (dBi)                 | -1.57   |
| Peak Gain (dBi)                    | 1.63  |
| Polarization                       | R.H.C.P. (Right Handed Circular Polarization) |
| V.S.W.R                            | < 2   |
| Return Loss (dB)                   | < -10   |
| Impedance ( $\Omega$ )             | 50  |
| Dimension (mm)                     | $\phi$ 59.5(D) x 16(H)                        |
| <b>Active Antenna Performance</b>  |   |
| Application Band                   | GPS   |
| Frequency (MHz)                    | 1575.42 $\pm$ 1.023                           |
| Gain (dB)                          | 28  |
| Noise (dB)                         | 1.22  |
| Current Consumption (mA)           | 10.56 $\pm$ 2                                 |
| Output Impedance ( $\Omega$ )      | 50  |

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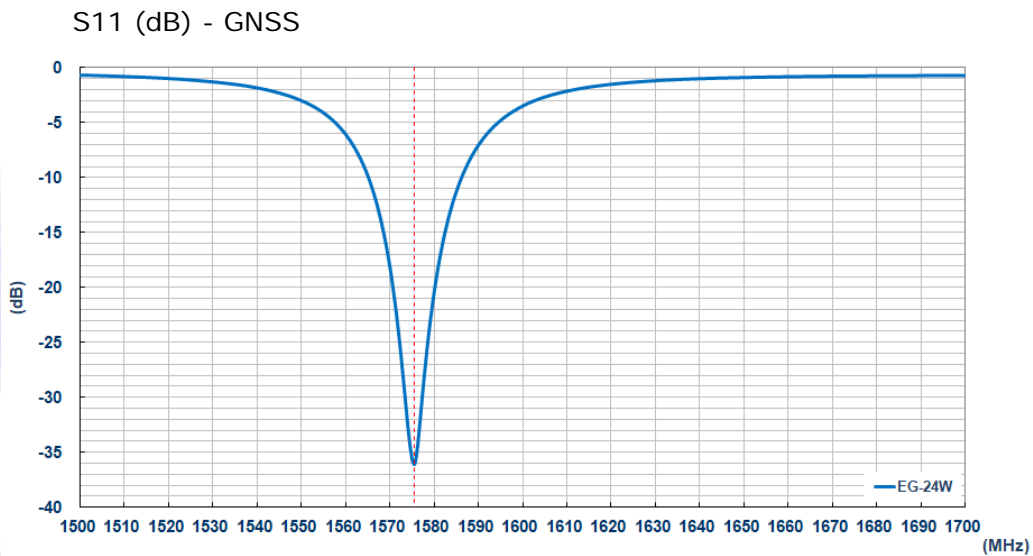


| GNSS _Out Of Band Rejection |                    |             |             |
|-----------------------------|--------------------|-------------|-------------|
| Frequency (MHz)             | 600 ~ 1350         | 1350 ~ 1520 | 1650 ~ 3000 |
| Gain (dB)                   | 50                 | 34          | 45          |
| ESD Protection              |                    |             |             |
| Contact (KV)                | ± 8                |             |             |
| Air (KV)                    | ± 15               |             |             |
| Environmental Conditions    |                    |             |             |
| Operation Temperature       | -40 ~ +85 °C       |             |             |
| Storage Temperature         | -40 ~ +85 °C       |             |             |
| Waterproof Resistant        | IP67               |             |             |
| Relative Humidity           | 95% non-condensing |             |             |

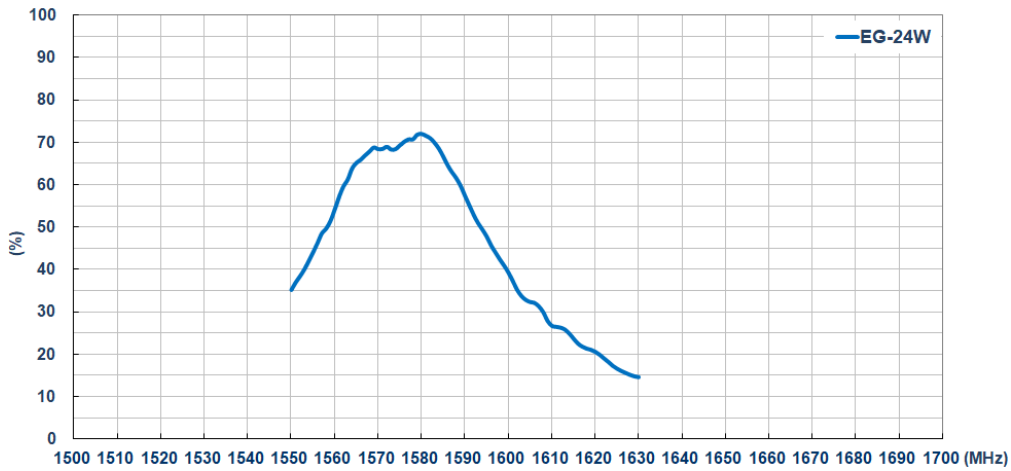
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## II. Antenna Technical Parameters:

- Passive antenna performance

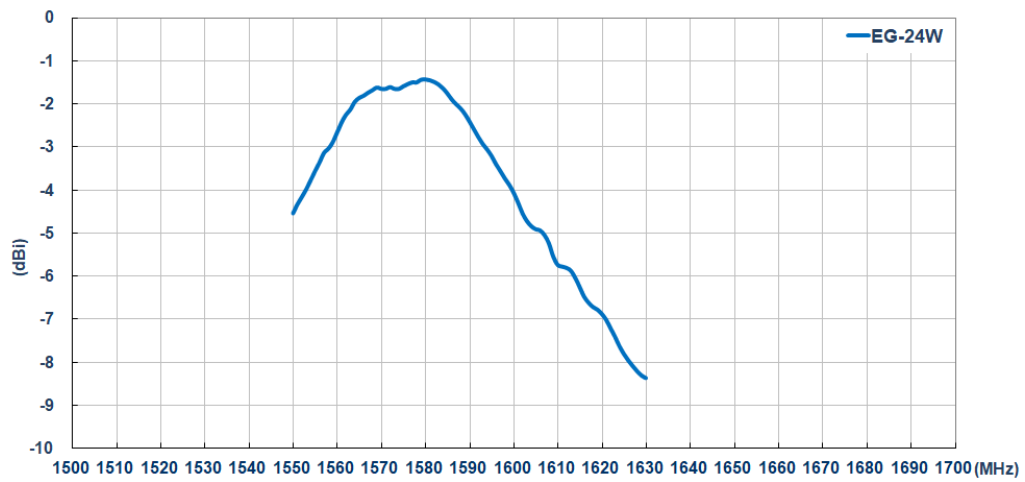


Efficiency (%) – GNSS

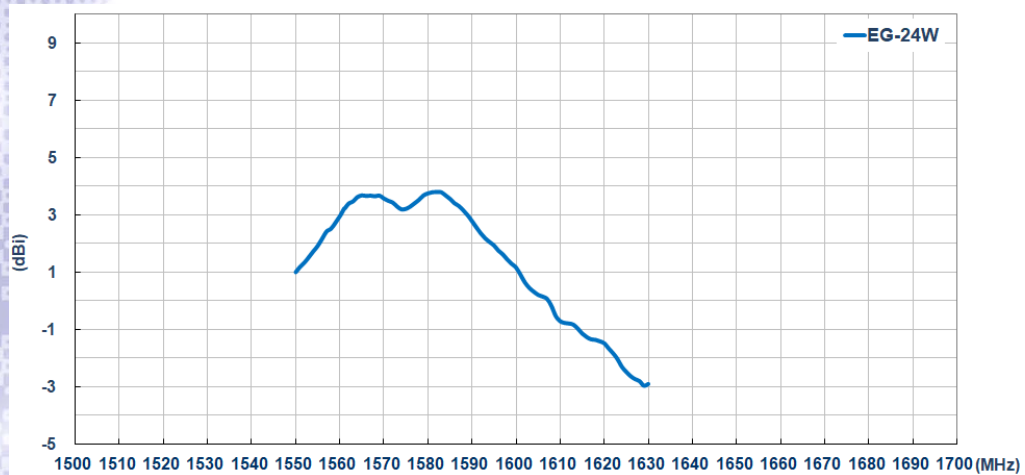


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Average Gain (dBi) – GNSS

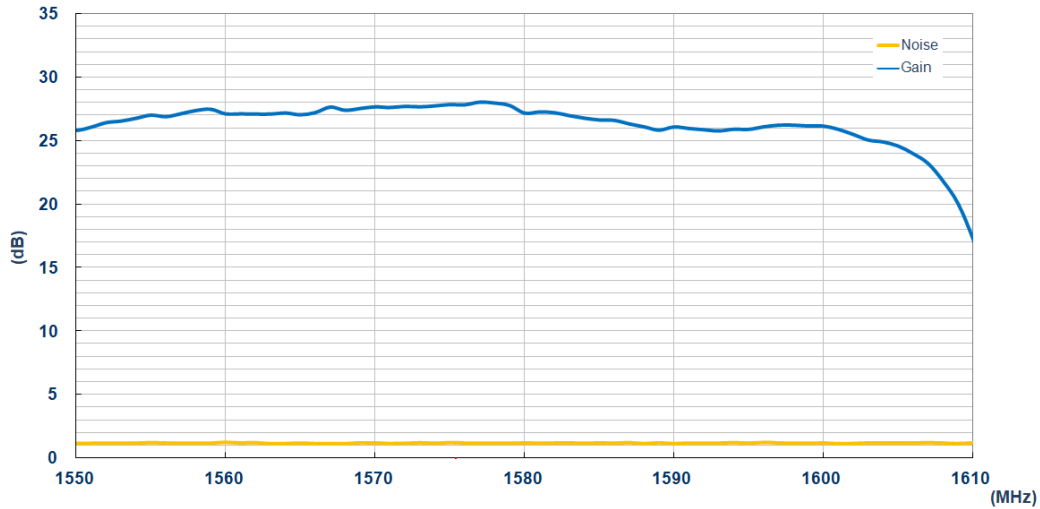


Peak Gain (dBi) – GNSS

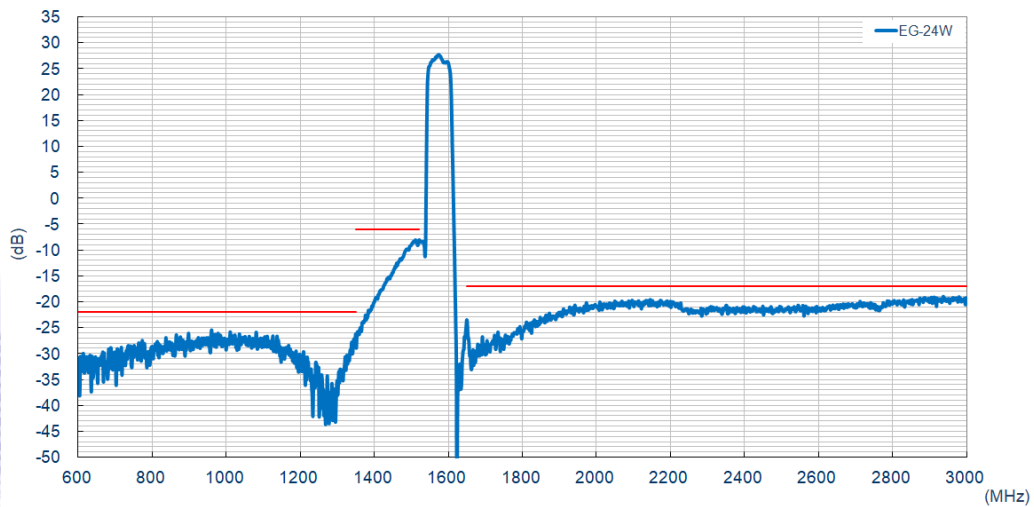


● Active antenna performance

Noise & Gain (dB) – GNSS



Out of Band Rejection (dB) – GNSS



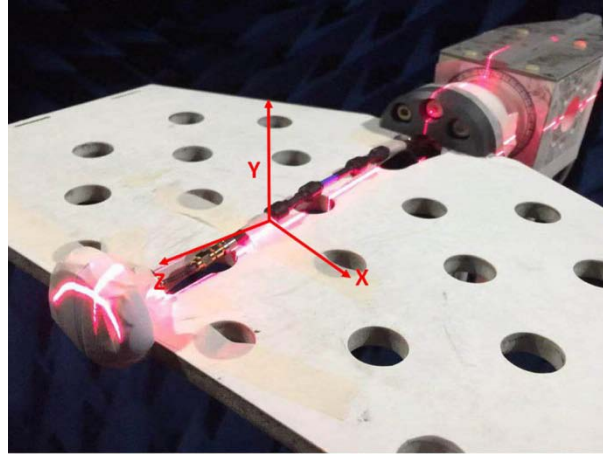
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### III. Antenna Radiation Pattern Measurement:

The antenna radiation patterns were measured in Anechoic Chamber.

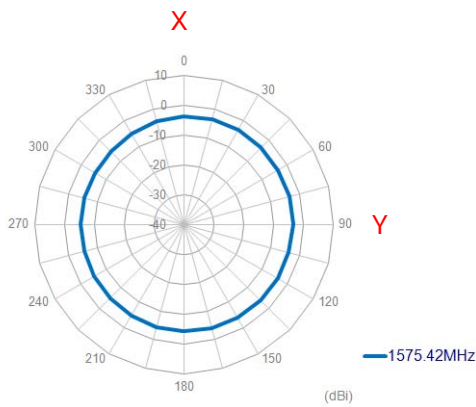
The measurement setup as below,



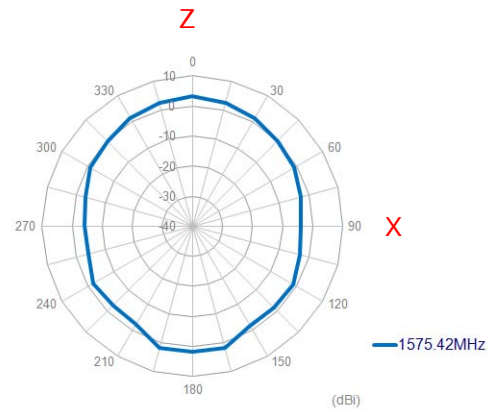
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### IV. 2D Radiation Pattern:

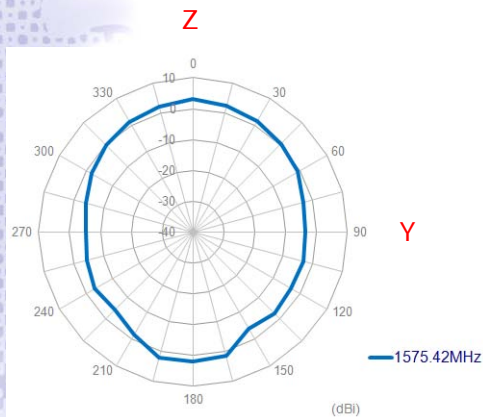
X-Y Plane



X-Z Plane

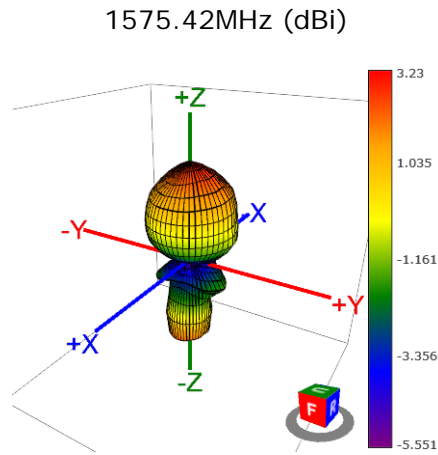


Y-Z Plane





### V. 3D Radiation Pattern:



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### VI. Mechanical Drawing (Unit:mm):

