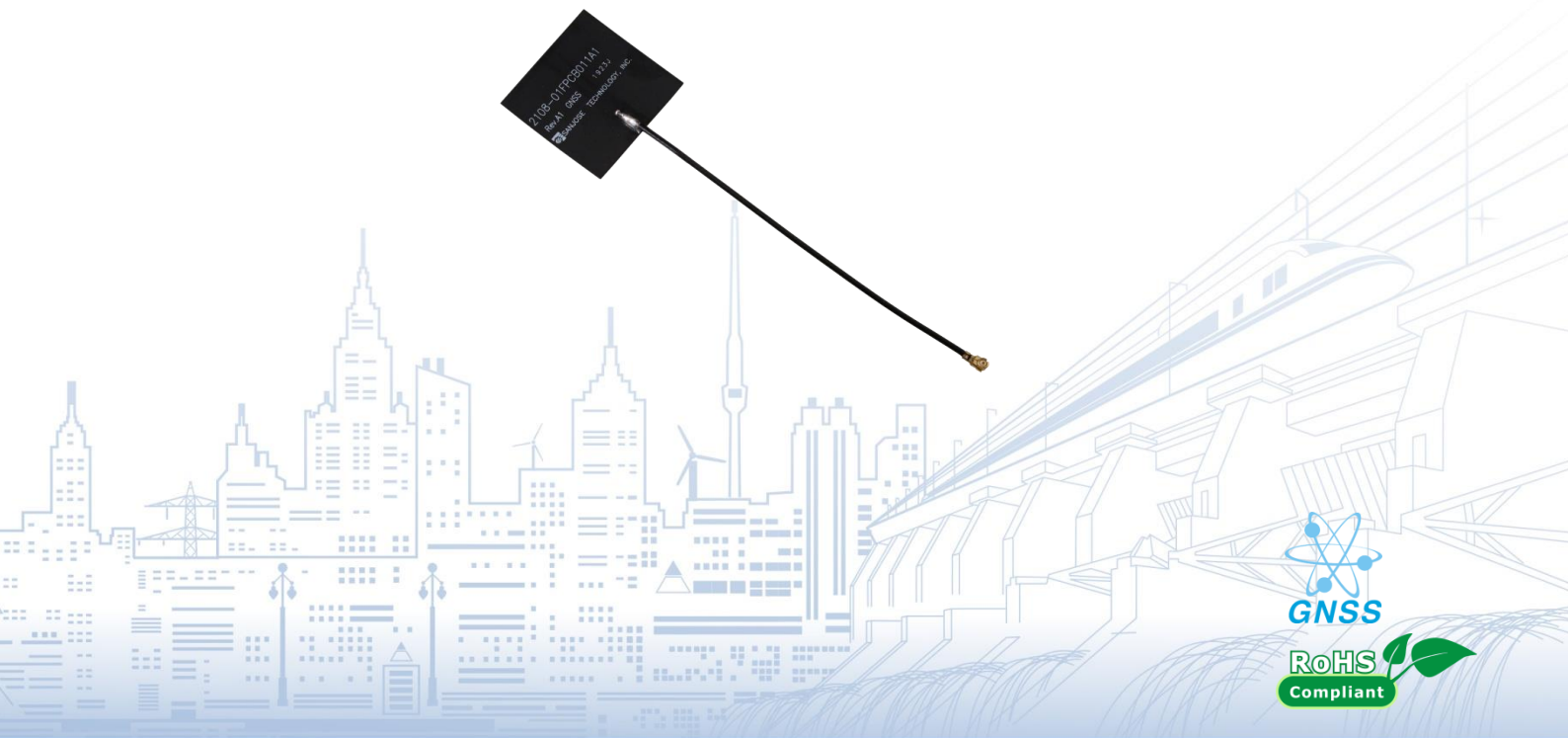




**Product Name:**

GNSS L1 Band Flexible PCB Antenna, IPEX MHFI

**Part Number:** FP-B02-01

**Feature:**

- BeiDou/GPS/GLONASS L1 Supported
- Compact Antenna Size, 30mm x 30mm x 0.2mm
- IPEX MHFI Connector

**Application:**

- Portable Tracking Device
- Miniature Telemetry Device



# GNSS L1 Band Flexible PCB Antenna, IPEX MHFI

**MODEL: FP-B02-01**

WI-RD-D-189 V1.0

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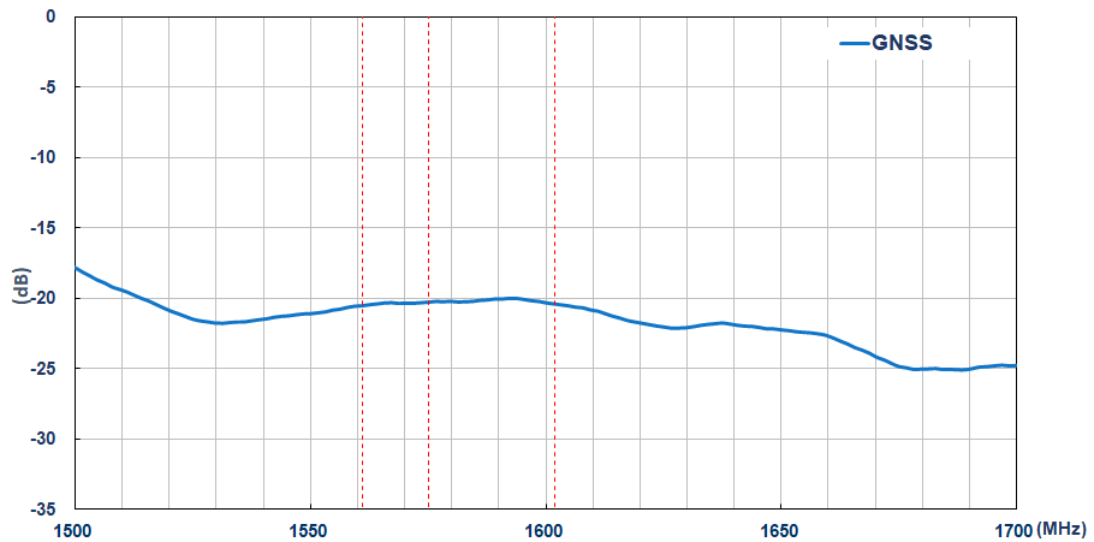
## I. Specifications:

| Category                   | Specifications         |         |         |
|----------------------------|------------------------|---------|---------|
| Electrical Characteristics |                        |         |         |
| Polarization               | Linear                 |         |         |
| Application Band           | BeiDou                 | GPS     | GLONASS |
| Frequency (MHz)            | 1561.00                | 1575.42 | 1602.00 |
| Efficiency (%)             | 62.23                  | 62.52   | 61.52   |
| Average Gain (dBi)         | -2.06                  | -2.04   | -2.11   |
| Peak Gain (dBi)            | 4.80                   | 4.80    | 4.90    |
| V.S.W.R                    | < 2                    |         |         |
| Return Loss (dB)           | < -10                  |         |         |
| Impedance (Ω)              | 50                     |         |         |
| Physical Condition         |                        |         |         |
| Dimension (mm)             | 30(L) x 30(W) x 0.2(T) |         |         |
| Connector                  | IPEX MHFI              |         |         |
| Cable                      | 1.37 mm Mini-Coax      |         |         |
| Cable Length (mm)          | 100                    |         |         |
| Environmental Conditions   |                        |         |         |
| Operation Temperature      | -40 ~ +85 °C           |         |         |
| Storage Temperature        | -40 ~ +85 °C           |         |         |
| Relative Humidity          | 95% non-condensing     |         |         |

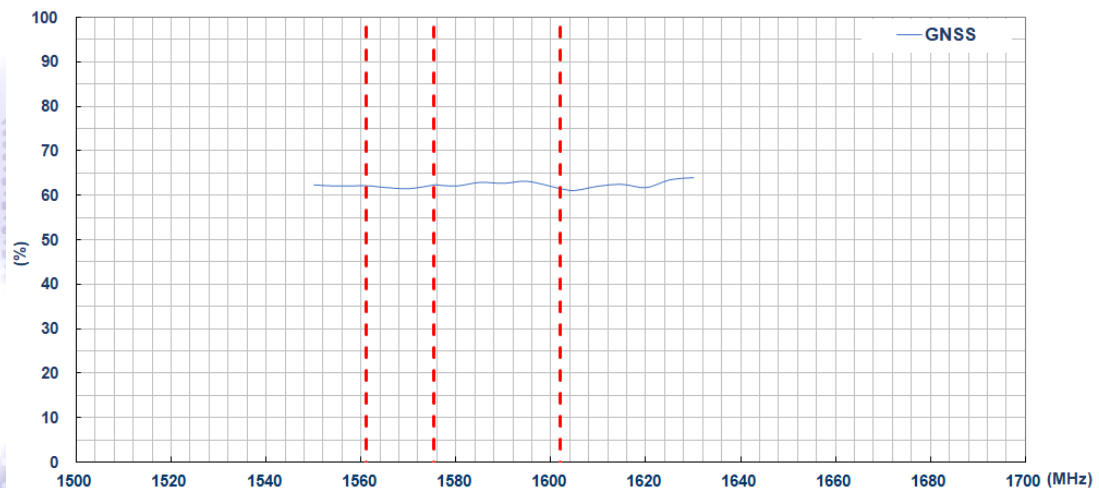


## II. Antenna Technical Parameters:

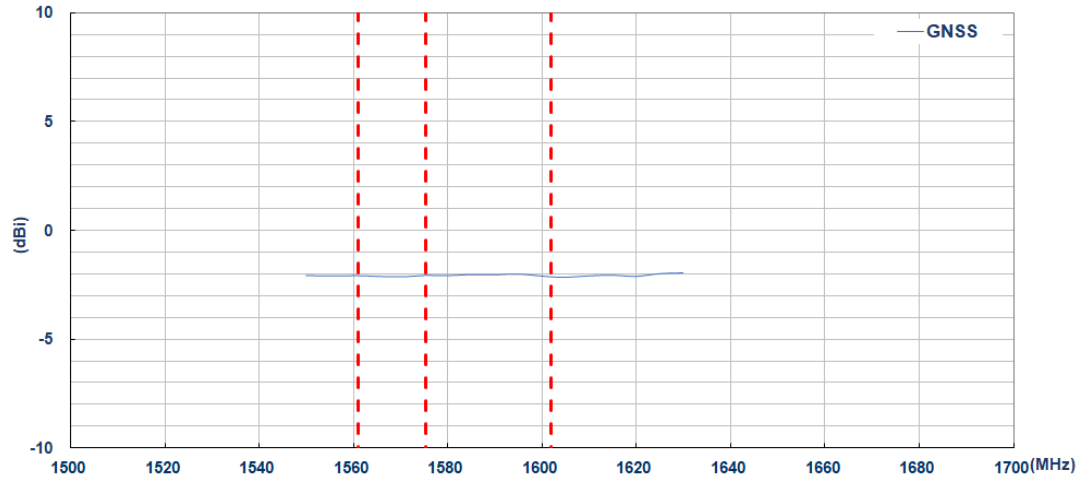
S11-parameters (dB)



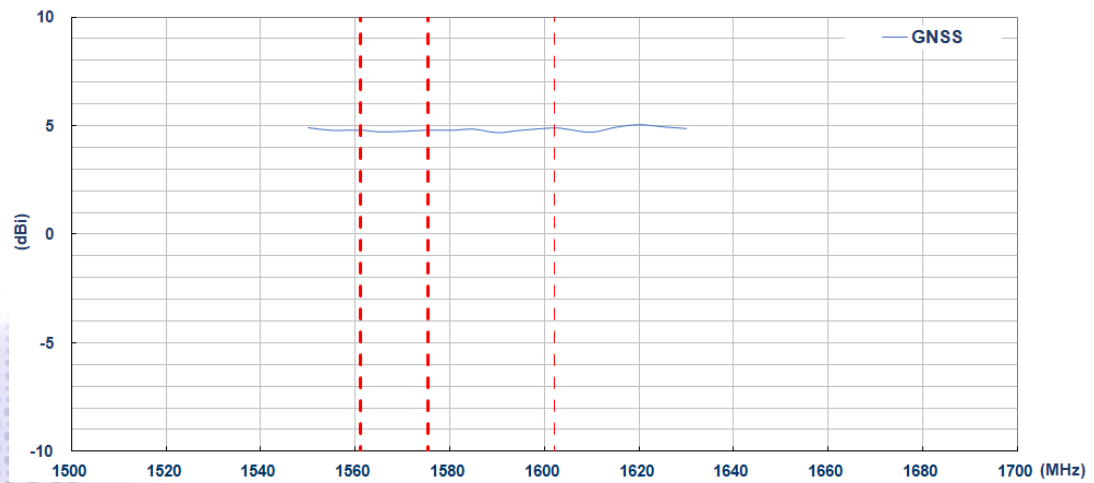
Efficiency (%)



Average Gain (dBi)

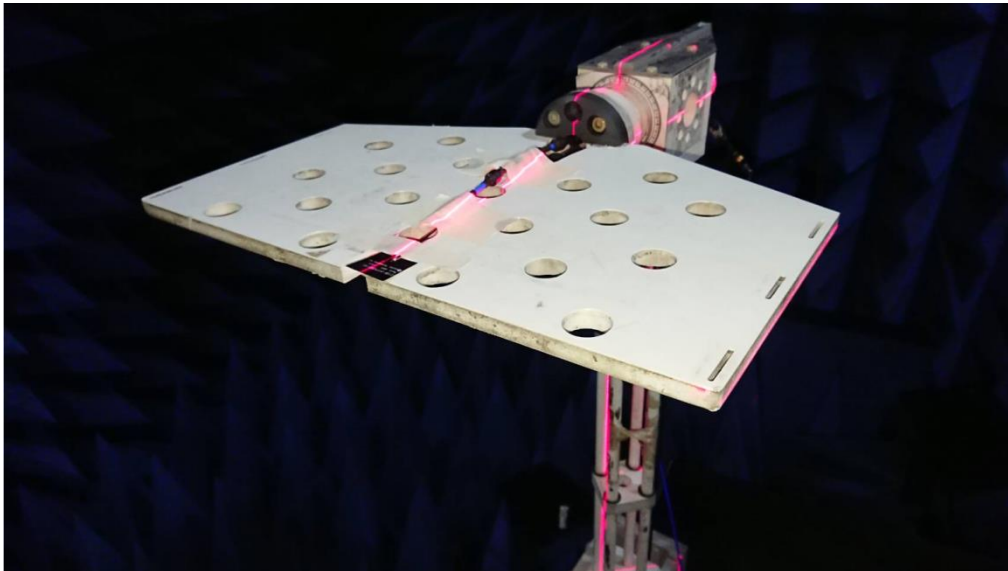


Peak Gain (dBi)



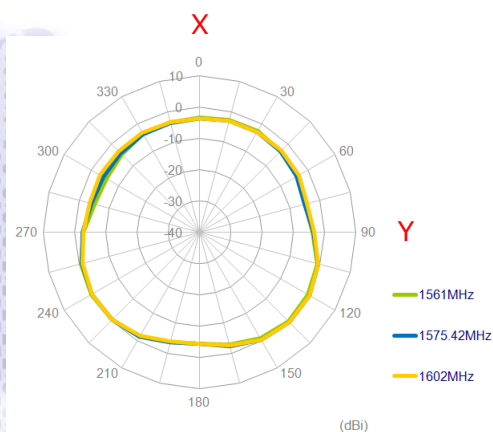
### III. Antenna Radiation Pattern Measurement:

The antenna radiation patterns were measured in Anechoic Chamber.  
The measurement setup as below,

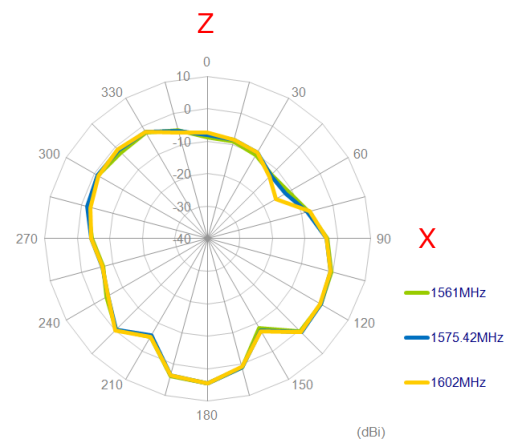


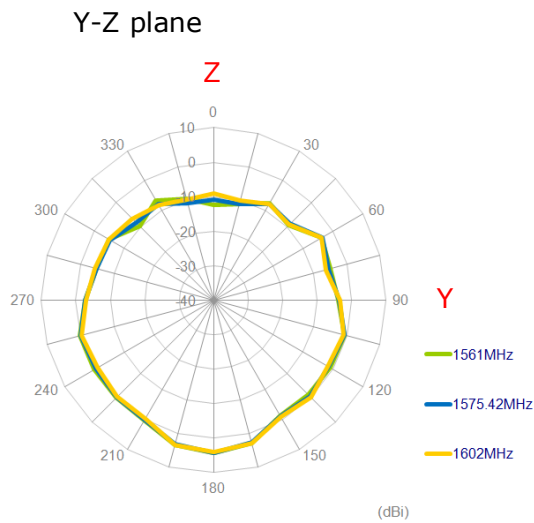
### IV. 2D Radiation Pattern:

X-Y plane

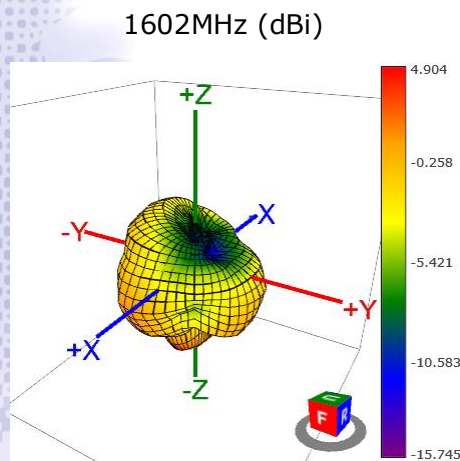
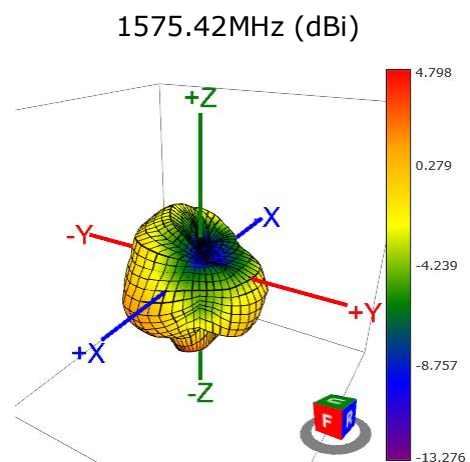
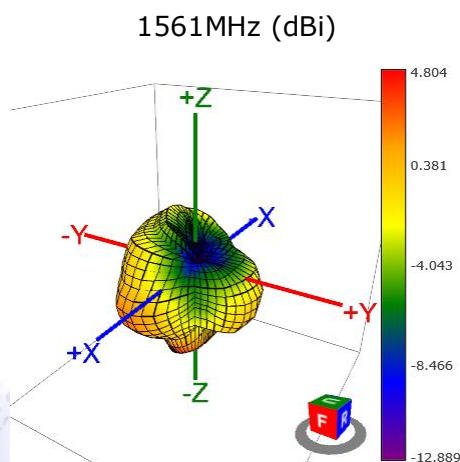


X-Z plane

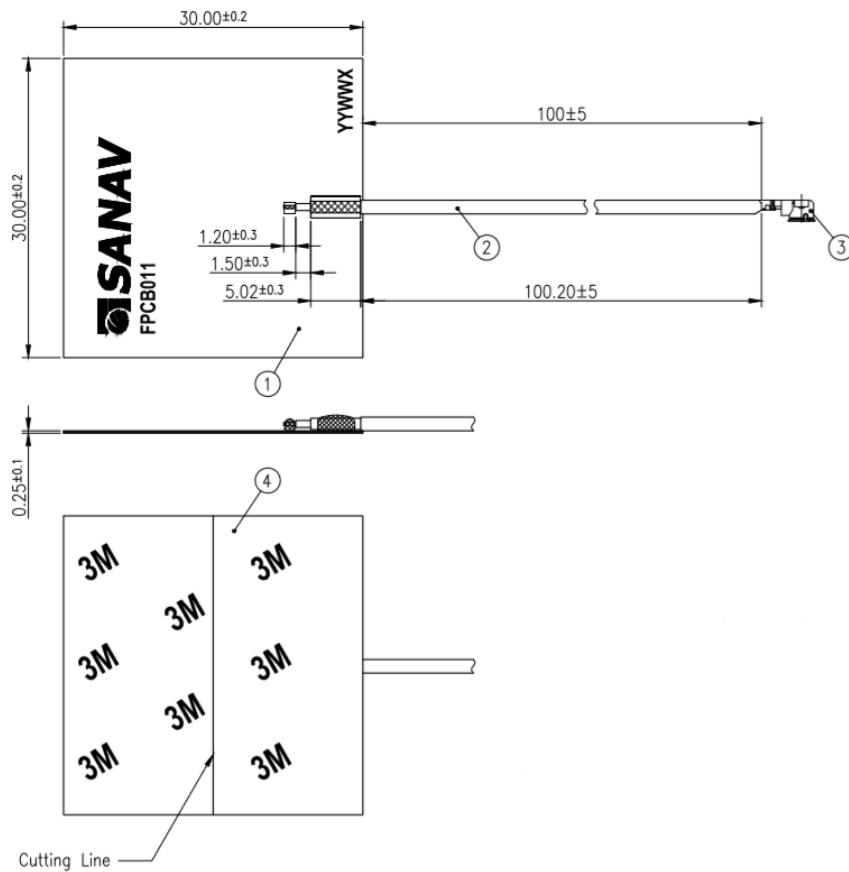




## V. 3D Radiation Pattern:



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



| 4  | Double-Sided Adhesive   | 3M 467        | Brown Liner | 1    |
|----|-------------------------|---------------|-------------|------|
| 3  | IPEX MHF(20351-112R-37) | Brass         | Au Plated   | 1    |
| 2  | 1.37 Coaxial Cable      | FEP           | Black       | 1    |
| 1  | FPCB011                 | Polymer 0.25t | Black       | 1    |
| No | NAME                    | MATERIAL      | FINISH      | Q'TY |

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