




SPECIFICATION SHEET

High Precision GNSS Antenna

| | |
|--------------------|------------------------------|
| MESSERS. | |
| DESCRIPTION | GNSS L1/L2/L5 ANTENNA |
| PART No. | FES-1BBHE-H |

| ACCEPTANCE | | |
|------------|---------|----------|
| PREPARED | CHECKED | APPROVED |
| / | / | / |

| SUPPLIER | | |
|---|---|---|
| PREPARED | CHECKED | APPROVED |
|  |  |  |
| 09/04 | 09/04 | 09/04 |

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◆ REVISION HISTORY

| NO | DATE | REVISION | NOTE | AUTHORS |
|----|------------|----------|-------------|---------|
| 1 | 2024.09.04 | 00 | First Draft | LEE. |
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◆ APPLICATION

- Unmanned Aerial Vehicle Navigation Telematics and Navigation
- Autonomous vehicles Satellite Realtime Navigation
- Vehicle Tracking Logistics and Shipping
- Road/Aviation/Rail/Marine Applications Smart Parking , Vehicle Control
- Agriculture/Cartographic/Military/Mapping/Marine/Surveying and Mapping Systems

◆ KEY FEATURES

- High Precision GNSS Antenna
- GPS/GLONASS/BEIDOU/Galileo/QZSS/RTK/L1/L2/L5
- 1176/1227MHz and 1561-1610MHZ
- Active Gain 40 ± 2 dB
- Voltage Range 3.0V~12.0V
- Low Noise Figure



◆ ELECTRICAL SPECIFICATION

| ITEM | | SPECIFICATIONS |
|---------|---------------------------|--|
| Antenna | Frequency | GPS L1/L2/L5 GLONASS G1/G2 /G3 BEIDOU B1/B2a/B2b/B3 Galileo E1/E5a/E5b/E6 |
| | Polarization | RHCP Right-hand-circulator |
| | Axial Ratio(min) | ≤3dB |
| | V.S.W.R | ≤2.0 |
| | Peak Gain | ≥5.0dBi |
| | Impedance | 50Ω |
| | Horizontal coverage angle | 360° |

❖ GNSS LNA

| ITEM | | SPECIFICATIONS |
|------|---------------------|----------------|
| LNA | Gain | 40 ± 2dB |
| | Noise Figure | ≤2.0dB |
| | Supply Voltage | 3.0-12.0V |
| | Current Consumption | ≤50mA |
| | V.S.W.R | ≤2.0 |

◆ ENVIRONMENTAL SPECIFICATION

| ITEM | SPECIFICATIONS |
|-----------------------|---------------------------------------|
| Operating Temperature | -40°C~+85°C |
| Relative Humidity | 65°C, 95%RH for 96 hours |
| Waterproof Rating | IP67 (exclude Air vent in screw hole) |

RoHS Compliant

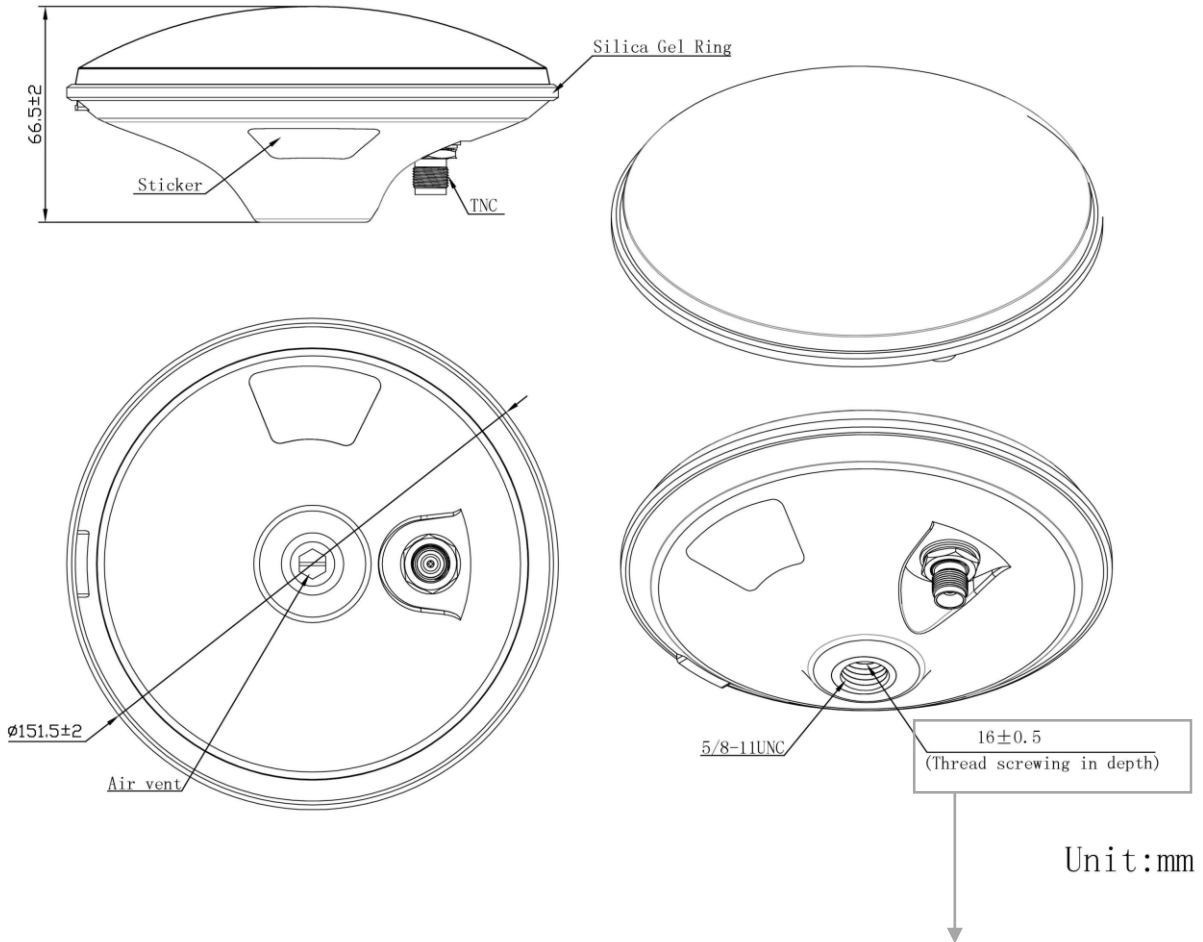
◆ MECHANICAL SPECIFICATION

| ITEM | SPECIFICATIONS |
|-----------------|-------------------------------------|
| Dimensions | ø151.5x 66.5mm |
| Radome Material | ASA(Acrylonitrile Styrene Acrylate) |
| Connector | TNC(F) |
| Mounting Method | POLE MOUNT(5/8-11 UNC) |

❖ GNSS FREQUENCY BAND

| GPS/GNSS FREQUENCY BAND | | | | | |
|-------------------------|------------|---------|---------|---------|---------|
| GPS /QZSS | L1 | L2 | L5 | L6 | |
| | 1575.42MHz | 1227MHz | 1176MHz | 1278MHz | |
| GLONASS | G1 | G2 | G3 | | |
| | 1602MHz | 1248MHz | 1207MHz | | |
| GALILEO | E1 | E5a | E5b | E6 | |
| | 1575.42MHz | 1176MHz | 1202MHz | 1278MHz | |
| BEIDOU | B1 | B2a | B2b | B3 | |
| | 1561MHz | 1176MHz | 1207MHz | 1268MHz | |
| SBAS | L1 | G1 | L5 | G2 | G3 |
| | 1575.42MHz | 1602MHz | 1176MHz | 1248MHz | 1207MHz |
| L-BAND IRNSS | L-BAND | IRNSS | | | |
| | 1542MHz | 1176MHz | | | |

◆ ANTENNA DIMENSION



❖ POLE MOUNT(OPTION)

