

# Tersus GNSS

## AX4E07 High Performance Antenna

### Overview

The AX4E07 high performance GNSS antenna is designed with rugged housing, high reliability and easy integration for applications that require ultimate accuracy. It offers full support for reliable and consistent satellite signals tracking, including GPS, GLONASS, Galileo, BeiDou, QZSS, IRNSS, SBAS as well as L-Band correction service. It is ideal for unmanned vehicles, autonomous driving, mobile mapping system and solution of mobile laser scanning system for unmanned vehicles or applications where precision matters.



### Key Features

- ✓ Supports multiple constellations and frequencies
  - GPS L1, L2, L5
  - GLONASS L1, L2, L3
  - BeiDou B1, B2, B3
  - Galileo E1, E5a, E5b, E6
  - QZSS L1, L2, L3, L6
  - IRNSS L5
  - SBAS L1, L5
  - L-Band
- ✓ Reliable phase center, low elevation signal tracking, strong anti-interference performance
- ✓ Low profile, rugged IP67 housing idea for harsh environments
- ✓ Weight 250g only, low power consumption, autonomous vehicle mounting

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### Technical Specifications

#### Performance

|  |                        |
|--|------------------------|
| Signal Tracking:   |                        |
| GPS L1, L2, L5; GLONASS L1, L2, L3; BDS B1, B2, B3; Galileo E1, E5a, E5b, E6; QZSS L1, L2, L3, L6; IRNSS L5; SBAS L1, L5; L-Band |                        |
| Nominal Impedance:   | 50Ω                    |
| Polarization:  | RHCP                   |
| Axial Ratio:   | ≤3dB                   |
| Peak Gain:   | 4.0dBi                 |
| Azimuth Coverage:  | 360°(Omni-directional) |

#### Mechanical

|            |                          |
|------------|--------------------------|
| Size:      | φ 90.6x26mm              |
| Connector: | TNC Female               |
| Weight:    | ≤250g                    |
| Mounting:  | Screws Mount: M18 screws |

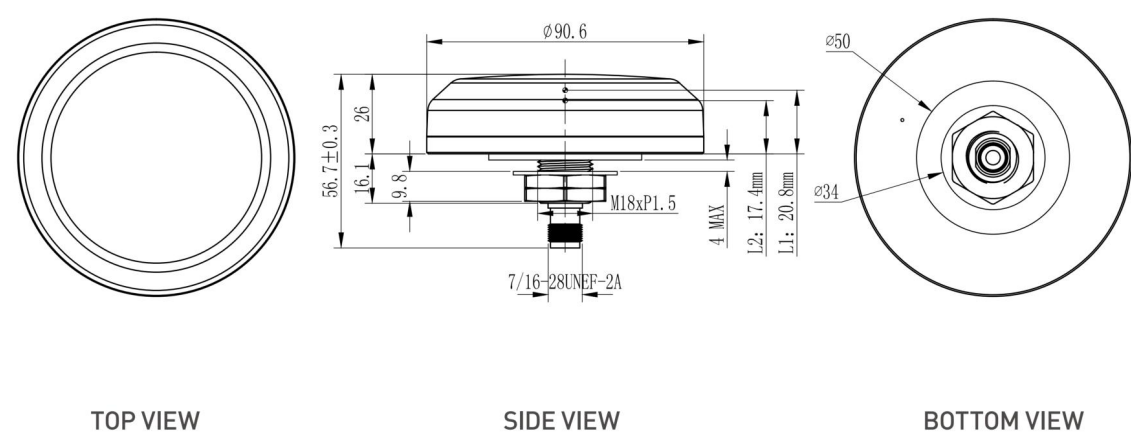
#### LNA

|                                  |                                  |
|----------------------------------|----------------------------------|
| LNA Gain:                        | 40±2dB                           |
| Noise Figure:                    | ≤2dB                             |
| Output VSWR:                     | ≤2.0                             |
| Passband Ripple:                 | ±2dB                             |
| Operation Voltage:               | 3.3V~16V DC                      |
| Operation Current:               | ≤ 45mA                           |
| Differential Propagation Delay : | ≤ 5ns                            |
| EMC(RF Input Static):            | Connected 8KV, Air 15KV, 10times |

#### Environmental

|                        |                    |
|------------------------|--------------------|
| Operating Temperature: | -45°C~+85°C        |
| Storage Temperature:   | -55°C~+85°C        |
| Humidity:              | 95% not condensing |
| Dust- & Waterproof:    | IP67               |

### Structure & Phase Center Drawing



Undeclared Tolerance: ±0.3mm

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