Trimble Zephyr 3 Antennas

PRECISE AND DURABLE WITH SUB-MILLIMETER ACCURACY

The top of the range Trimble® Zephyr™ external GNSS antennas contain advanced technology for multipath reduction, outstanding low elevation satellite tracking and sub-millimeter phase center stability.

COMPREHENSIVE GNSS SUPPORT

The Trimble Zephyr 3 antennas offer full support for current and near-future GNSS signals including GPS, GLONASS, Galileo, BeiDou, OmniSTAR, Trimble RTX and SABS. Combined with rugged durability, the Trimble Zephyr 3 antenna will be a long term investment.

TRIMBLE ZEPHYR 3 ROVER

The Trimble Zephyr 3 Rover is a high-performance lightweight GNSS rover antenna optimized for precision RTK applications. The Zephyr 3 Rover GNSS antenna is typically used in roving applications. It minimizes multipath and offers robust low elevation tracking and sub-millimeter phase center repeatability.

Key features of the Zephyr 3 Rover

• Optimized for GNSS rover applications
• Robust low-elevation satellite tracking
• Minimized multipath
• Sub-millimeter phase center repeatability
• Now with Iridium and Japanese LTE filtering

TRIMBLE ZEPHYR 3 BASE

The Zephyr 3 Base is recommended for all base station applications. This antenna is also suitable as a fixed rover antenna for use in high multi-path environments. The Zephyr 3 Base antenna’s quality performance and extreme accuracy are achieved through sub-millimeter phase center repeatability, robust low-elevation tracking and significantly reduced ground-based multipath.

Key features of the Zephyr 3 Base:

• Optimized for GNSS base station applications
• Robust low-elevation satellite tracking
• Large ground plane for best multipath rejection
• Sub-millimeter phase center repeatability
• Ideal for fixed reference stations and GNSS infrastructure networks
• Now with Iridium and Japanese LTE filtering

Key Features

► Comprehensive GNSS support, including GPS Modernization signals, GLONASS, BeiDou and Galileo
► Robust low-elevation satellite tracking
► Minimized multipath
► Sub-millimeter phase center repeatability
► Ideal for fixed reference stations and GNSS infrastructure networks
► Additional Iridium and Japanese LTE filtering
► High signal gain (50 dB) for reliable tracking
► 5/8” - 11 stainless steel mounts

Zephyr 3 Rover Antenna

Zephyr 3 Base Antenna
TECHNICAL SPECIFICATIONS

Zephyr 3 Rover and Zephyr 3 Base

- Broad GNSS Frequency Tracking Band Including:
  - GPS: L1, L2, L5
  - GLONASS: L1, L2, L3
  - BeiDou: E1, E2, E5, E6
  - Galileo: E1, E2, E5, E6
  - SBAS: WAAS, EGNOS, QZSS, Gagan, MSAS, OmniSTAR and Trimble RTX
- Quality signal tracking, even below 5 degrees elevation
- Four point antenna feed for phase center stability and enhanced polarization
- TNC female signal connector
- Small cross-sectional area to reduce wind loading
- 5/8” - 11 female threaded stainless steel mount point
- Powered by GNSS receiver via coaxial cable
- Advanced LNA (low noise amplifier) to reduce jamming by high power out-of-band transmitters with 50 dB signal gain for reliable tracking in challenging environments and long cable runs
- Additional iridium filtering above 1616 MHz allows antenna to be used as close as 20 m of iridium transmitter
- Additional Japanese filtering below 1510 MHz allows antenna to be used as close as 100 m of Japanese LTE cell tower

Zephyr 3 Base Antenna Only

- Trimble Stealth Ground Plane – integrated lightweight stealth technology with enhanced right hand circular polarization to reduce multipath interference
- Supplementary transparent protection radome not required (available if desired)

ENVIRONMENTAL QUALIFICATIONS

Operating Temperature: –40 °C to +85 °C (–40 °F to +167 °F)
Humidity: 100% humidity proof, fully sealed

Shock and Vibration

- Shock: MIL-STD-810-F to survive a 2 m (6.56 ft) drop onto concrete
- Vibration: MIL-STD-810-F on each axis

Compliance: RoHS

PHYSICAL AND ELECTRICAL SPECIFICATIONS

Zephyr 3 Rover Dimensions: 16.5 cm diameter x 7.6 cm height (6.5 in diameter x 3 in height)
Zephyr 3 Base Dimensions: 34.3 cm diameter x 7.9 cm height (13.5 in diameter x 3.1 in height)

Zephyr 3 Rover Weight: 0.64 kg (1.4 lb)
Zephyr 3 Base Weight: 1.36 kg (3 lb)

Input Voltage: 3.5 V DC to 20 V DC
  - Narrow Band Mode (1555 to 1559 MHz): >6.4 V DC to 9 V DC
  - Wide Band Mode (1525 to 1559 MHz): 3.5 V DC to 6.0 V DC and 9.4 V DC to 20 V DC

Input Current: 125 mA

Signal Gain: 50 dB

PART NUMBERS

105000-50-INT ............ Zephyr Model 3 Rover Antenna
115000-50-INT ............ Zephyr Model 3 Base Antenna

Specifications subject to change without notice.