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, BeiDou, Galileo, and SBAS. 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

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
- Now with Iridium and Japanese LTE filtering
- 5/8" - 11 stainless steel mounts

TRIMBLE ZEPHYR 3 BASE

The Zephyr 3 Base is recommended for all base station applications. 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

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: B1, B2, B3
  – 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

ENVIRONMENTAL

Operating Temperature ........ -40 °C to +75 °C (−40 °F to +167 °F)
Humidity ..................... 100% humidity proof, fully sealed

Shock and Vibration

Tested and meets the following environmental standards:
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

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)

ELECTRICAL

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