



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

TRIMBLE ZEPHYR 3 antennas

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
- Supplementary transparent protection radome not required (available if desired)

ENVIRONMENTAL QUALIFICATIONS

Operating Temperature . . . -40 °C to +85 °C (-40 °F to +167 °F)
 Humidity100% 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

ComplianceRoHS

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.

TRIMBLE
 Worldwide
 Integrated Technologies
 510 DeGuigne Drive
 Sunnyvale, CA 94085

Email: sales-intech@trimble.com