



Trimble Zephyr 3 Rugged Antenna

PRECISE AND DURABLE WITH MILLIMETER ACCURACY

The newly improved Zephyr 3 Rugged antenna is smaller and lighter than its Zephyr 2 Rugged predecessor. The Trimble Zephyr 3 Rugged antenna is designed for applications in high shock and vibration environments. Integrated with advanced filtering capabilities and robust signal tracking, the Zephyr 3 Rugged can provide the millimeter level accuracy required to enhance your position solution.

COMPREHENSIVE GNSS SUPPORT

The Trimble Zephyr 3 Rugged antenna offers full support for current and near-future GNSS signals including GPS, GLONASS, Galileo, BeiDou, QZSS, IRNSS, OmniSTAR, Trimble RTX and SBAS.

Features of the Zephyr 3 Rugged:

- ▶ Additional Iridium filtering above 1616 MHz allows antenna to be used as close as 20 m of Iridium transmitter
- ▶ Additional filtering below 1510 MHz allows for antenna placement closer to Japanese LTE cell tower
- ▶ Advanced LNA (low noise amplifier) to reduce interference by high power out-of-band transmitters
- ▶ 50 dB signal gain for reliable tracking in challenging environments and long cable runs
- ▶ Two product versions available for 5/8" - 11" thread and 3" mast mounting

Key Features

- ▶ Comprehensive GNSS support, including GPS Modernization signals, GLONASS, BeiDou and Galileo
- ▶ Robust low-elevation satellite tracking
- ▶ Millimeter phase center repeatability
- ▶ Improved signal filtering and multipath rejection
- ▶ Additional Iridium and Japanese LTE filtering
- ▶ High signal gain (50 dB) for reliable tracking
- ▶ 75g Shock



Picture 1: Zephyr 3 with 5/8" Mounting
PN 125000-30-INT



Picture 2: Zephyr 3 with 3" Mast Mounting
PN 125000-10-INT

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TECHNICAL SPECIFICATIONS

- Comprehensive GNSS Tracking:
 - GPS: L1, L2, L5
 - GLONASS: L1, L2, L3
 - BeiDou: B1, B2, B3
 - Galileo: E1, E5a, E5b, E6
 - QZSS: L1, L2, L5, LEX
 - IRNSS: L5
 - SBAS: WAAS, EGNOS, GAGAN, and MSAS
 - MSS: OmniSTAR, Trimble RTX
- Quality signal tracking, even at low elevations
- Four point antenna feed for phase center stability and enhanced polarization

ENVIRONMENTAL QUALIFICATIONS

Operating Temperature . . . -40 °C to +85 °C (-40 °F to +185 °F)
 Humidity IP69K, +/- 5psi Sealing Spray per IEC 60945

Environmental
 Shock 75G, 6ms
 Vibration 20.4 gRMS
 Bouyant

Compliance CE compliant including ISO 13766:2006, 2014/45/EU (RED), EN 60950, E-Mark and RoHS, FCC, IC and RCM compliant

PHYSICAL AND ELECTRICAL SPECIFICATIONS

Dimensions
 125000-10-INT. 21.9 cm diameter x 12.5 cm height (8.62 in diameter x 4.92 in height)
 125000-30-INT. 18.7 cm diameter x 8.6 cm height (7.36 in diameter x 3.39 in height)

Weight
 125000-10-INT. 2.19 kg (4.83 lb)
 125000-30-INT. 1.79 kg (3.95 lb)

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

Input Current 125 mA
 Signal Gain 50 dB
 Signal Connector TNC Sealed
 Mounting 5/8" - 11 Thread or 3" Mast Mount

L1 Nominal Phase Center Values

The offset value for the Zephyr 3 Rugged L1 nominal phase center have changed compared to the Zephyr 2 antenna. Make sure your system is updated to reflect the correct offset as shown.

| Description | L1 APC Offset |
|---|---------------|
| Bottom of 4-hole bracket (Top of mast when using mast mounting bracket) | 7.16 cm |
| Bottom of 5/8 bracket | 8.43 cm |
| Bottom of antenna mount | 5.89 cm |
| Bottom of RZ2 matched 4-hole bracket | 10.04 cm |

Specifications subject to change without notice

PART NUMBERS

125000-10-INT Zephyr 3 Rugged Antenna with 3" Mast Mount Bracket
 125000-30-INT Zephyr 3 Rugged Antenna with 5/8" Mounting Bracket

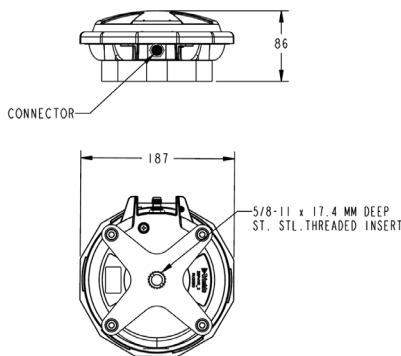


Figure 1: Technical Drawing of Zephyr 3 with 5/8" Mounting
 PN 125000-30-INT

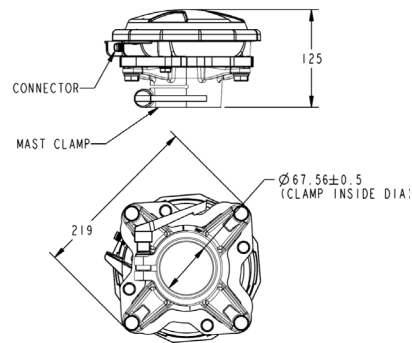


Figure 2: Technical Drawing of Zephyr 3 with 3" Mast Mounting
 PN 125000-10-INT

Contact your local dealer today

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