



# 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

# Trimble Zephyr 3 Rugged Antenna

## 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

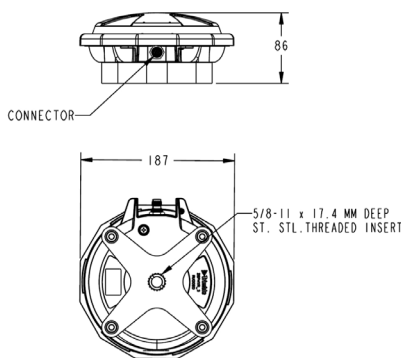


Figure 1: Technical Drawing of Zephyr 3 with 5/8" Mounting  
 PN 125000-30-INT

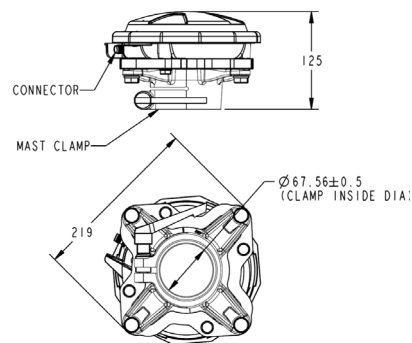


Figure 2: Technical Drawing of Zephyr 3 with 3" Mast Mounting  
 PN 125000-10-INT

Contact your local dealer today

TRIMBLE  
 Integrated Technologies  
 510 DeGuigne Drive  
 Sunnyvale, CA 94085  
 Americas & Asia-Pacific  
 Europe/EMEA  
 Email: sales-intech@trimble.com

© 2019, Trimble Navigation Limited. All rights reserved. Trimble logo are trademarks of Trimble, registered in the United States and in other countries. All other trademarks are the property of their respective owners. (08/19)