

Trimble Zephyr 3 Rugged Antenna

Precise and durable with millimeter accuracy

The newly improved Trimble® Zephyr™ 3 Rugged antenna is smaller and lighter than its Zephyr 2 Rugged predecessor. The 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 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



Zephyr 3 with 5/8" mounting
PN 125000-30-INT



Zephyr 3 without bracket
PN 125000-20-INT



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 & electrical specifications

Dimensions
125000-10-INT 21.9 cm diameter x 12.5 cm height
(8.62 in diameter x 4.92 in height)
125000-20-INT 21.9 cm diameter x 6.1 cm height
(8.62 in diameter x 2.4 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)
125000-20-INT 1.08 kg (2.38 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
4 x M8-1.25 Thread or 3" mast mount

L1 Nominal Phase Center Values

The offset value for the Zephyr 3 Rugged L1 nominal phase center has 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

Specifications subject to change without notice.

Part number

125000-10-INT Zephyr 3 Rugged Antenna
with 3" Mast Mount Bracket
125000-20-INT Zephyr 3 Rugged Antenna
without Bracket
125000-30-INT Zephyr 3 Rugged Antenna
with 5/8" Mounting Bracket

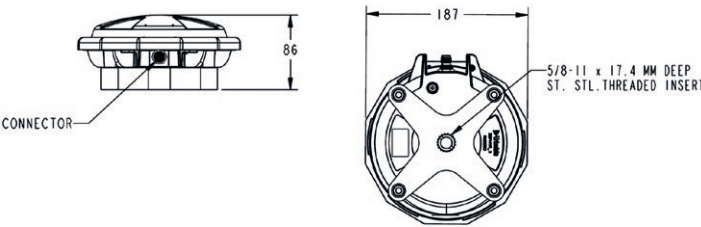


Figure 1: Technical Drawing of Zephyr 3 with 5/8" mounting
PN 125000-30-INT

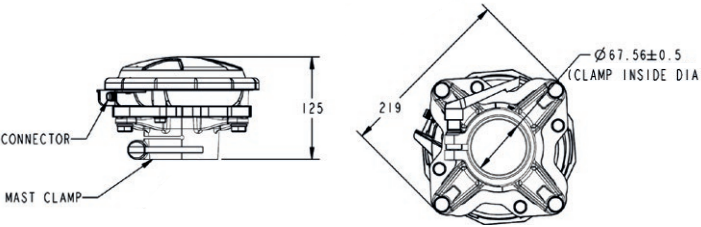


Figure 2: Technical Drawing of Zephyr 3 with 3" mast mounting
PN 125000-10-INT

Contact your local Trimble Authorized Distribution Partner for more information