

Bullet III GPS Antenna

Jam-Resistant Active GPS Antenna

now available for use with 3.3Vdc Prime Power

Key Features and Benefits

- High performance in any environment
- Waterproof, weatherproof
- Resists harsh RF jamming
- Proven extra rugged, reliable
- Available with choice of TNC or F-type connector

Whatever the environment—wet, cold, sunny, hot, harsh RF jamming—Trimble's Bullet™ III GPS antenna can take it, year after year. Designed primarily for stationary applications, the Bullet III antenna provides a perfect solution for manufacturers who need a fixed-site, rooftop GPS antenna. This antenna is also a high-quality solution for adding GPS RF signals to marine GPS navigation systems.

Put it anywhere

The antenna is housed in completely waterproof packaging designed to withstand exposure to shock, excessive vibration, extreme temperatures, rain, snow and sunlight. The enclosure is a textured off-white color and is both weatherproof and waterproof.

The dome is all plastic, and the threaded socket in the base of the antenna is corrosion resistant. The threaded socket accepts either a 1"-14" straight thread (typical marine antenna mount) or a 3/4" pipe thread.

The F-type or TNC antenna connector is located inside the threaded socket, which allows the antenna cable to be routed inside the pole and protects the cable connection for added reliability.



Bullet III HE jam-resistant active GPS antenna

Strong performance

The Bullet III antenna is an active GPS antenna with 35-dB preamp and dual bandpass filters. The high-gain preamp allows the Bullet III to be used with up to 75 feet of RG-59 cable. The bandpass filters improve immunity to other RF signals for reliable performance in hostile RF jamming environments.

Proven reliability

For over 15 years, Trimble has been producing GPS antennas renowned for their survivability in tough environments. The Bullet III is the fourth generation of the proven Bullet antenna

family (more than 40,000 delivered) and offers all the reliability and performance benefits that this exceptional field experience provides.

In unforgiving environments, an antenna failure could be disastrous. Don't risk it. Select a proven, stress-tested, GPS antenna—the Trimble Bullet III GPS antenna.

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ENVIRONMENTAL SPECIFICATIONS

Operating Temp:	-40° C to +85° C
Storage Temp:	-40° C to +100° C
Vibration:	10–200 Hz Log sweep 3g (Sweep time 30 minutes) 3 axes
Shock:	50 g vertical, 30 g all axes
Humidity:	Mil-STD-810E
Corrosion:	5% Salt spray
Waterproof:	Immersion to 1 meter

PHYSICAL CHARACTERISTICS

Dimensions:	3.05" D x 2.61" H (77.5 mm x 66.2 mm)
Weight:	6.0 oz (170 grams)
Enclosure:	Off-white plastic
Connector:	F-type or TNC
Mounting:	1"-14 thread or 3/4" pipe thread

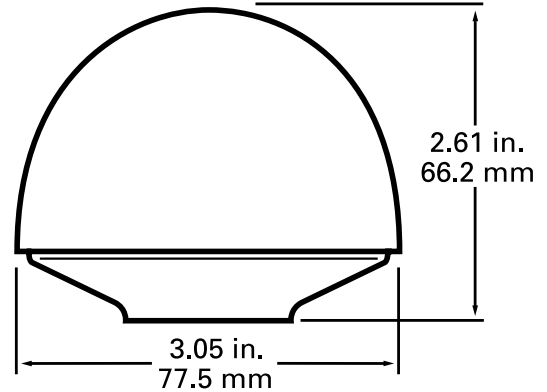
TECHNICAL/PERFORMANCE SPECIFICATIONS

Prime power:	+5 Volts DC ($\pm 10\%$)
Power consumption:	30 mA maximum
Output impedance:	50 Ω
Frequency:	1575.42 MHz \pm 1.023 MHz
Polarization:	Right-hand circular polarization (RHCP)
VSWR:	2.0 maximum
Axial ratio:	90°: 4.0 dB maximum; 10°: 6 dB maximum
Gain:	35 dB \pm 3 dB
Noise:	3.3 dB maximum (25°C \pm 5°C)
Pass-band width:	50 MHz
Out of Band rejection:	$f_o = 1575.42$ MHz $f_o \pm 20$ MHz: 7 dB min $f_o \pm 30$ MHz: 12 dB min $f_o \pm 50$ MHz: 20 dB min $f_o \pm 100$ MHz: 30 dB min
Azimuth coverage:	360° (omni-directional)
Elevation coverage:	0° to 90° elevation (hemispherical)

Specifications above also apply to the new 3.3Vdc Bullet III except as noted below:

Gain:	30 dBi @ 25° c
Prime power:	3.3Vdc ($\pm 10\%$)
Power Consumption:	<20 mA
Connection:	TNC only
Recommended Cable:	<ul style="list-style-type: none"> RG-6 with TNC to TNC connectors. 75ft maximum length TNC-SMA adapter 5.1" Adapter cable H.FL to SMA Bulkhead connector available for the Lassen PT or SQ

DIAGRAM



CONNECTORS



TNC



F-type

ORDERING INFORMATION

Accessories for 5Vdc version only

Rooftop Antenna Kit	Bullet III antenna with 75 feet of RG-59 cable, 8-inch type F to SMB adapter and instructions. For use in fixed site applications such as timing. Compatible with SVeeEight™, ACE GPS™ and Lassen™ modules.
Bullet III Cable Kit	50-foot (15 meter) RG-59 antenna cable with F connectors

Please visit our website for current information, part numbers, and ordering information at:
www.trimble.com/timing

All GPS receivers are subject to degradation of position and velocity accuracies under Department of Defense imposed Selective Availability (S/A)



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