

## Bullet III GPS Antenna

*Jam-Resistant Active GPS Antenna*

### Key Features and Benefits

- High performance in any environment
- Water resistant, 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 leak tested 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.

# Bullet III GPS Antenna

## Jam-Resistant Active GPS Antenna

### ENVIRONMENTAL SPECIFICATIONS

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

### PHYSICAL CHARACTERISTICS

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

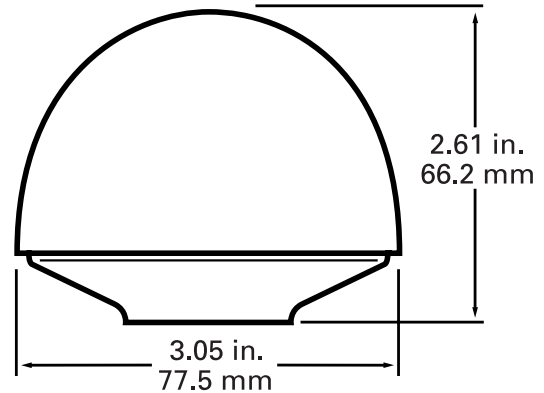
### TECHNICAL/PERFORMANCE SPECIFICATIONS

<b>Prime power:</b>	+5 Volts DC ( $\pm 10\%$ )
<b>Power consumption:</b>	30 mA maximum
<b>Output impedance:</b>	50 $\Omega$
<b>Frequency:</b>	1575.42 MHz $\pm$ 1.023 MHz
<b>Polarization:</b>	Right-hand circular polarization (RHCP)
<b>VSWR:</b>	2.0 maximum
<b>Axial ratio:</b>	90°: 4.0 dB maximum; 10°: 6 dB maximum
<b>Gain:</b>	35 dB $\pm$ 3 dB
<b>Noise:</b>	3.3 dB maximum (25°C $\pm$ 5°C)
<b>Pass-band width:</b>	50 MHz
<b>Out of Band rejection:</b>	$f_o$ : 1575.42 MHz
	$f_o \pm 20$ MHz : 7dB min
	$f_o \pm 30$ MHz : 12dB min
	$f_o \pm 40$ MHz : 20dB min
	$f_o \pm 100$ MHz : 100dB min
<b>Azimuth coverage:</b>	360° (omni-directional)
<b>Elevation coverage:</b>	0° to 90° elevation (hemispherical)

### CABLE SPECIFICATIONS

<b>Type:</b>	RG-59 or equivalent
<b>Impedance:</b>	75 $\Omega$
<b>Capacitance:</b>	16.5 pF/foot (54.1 pF/meter)
<b>Vel. of propagation:</b>	84%
<b>Shielding:</b>	Foil and copper braid (100% coverage)
<b>Connectors:</b>	Waterproof F-type
<b>Signal attenuation:</b>	<10 dB/100 feet for cable and connectors

### DIAGRAM



### CONNECTORS



TNC



F-type

### ORDERING INFORMATION

#### Accessories

<b>Rooftop Antenna Kit</b>	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.
<b>Bullet III Cable Kit</b>	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](http://www.trimble.com/timing)



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