Data Sheet



Acutime™360 Multi-GNSS Smart Antenna

KEY FEATURES

- Multi-Constellation
- Simultaneous GPS / GLONASS or GPS / Beidou tracking
- Superior sensitivity
 - ✓ Tracking -160dBm
 - ✓ Acquisition-148dBm (cold)
- Weatherproof and corrosion resistant housing
- Extended temperature range (-40°C / +85°C)

Multi-GNSS Smart Antenna

The Trimble® Acutime™360 Multi-GNSS (GPS, GLONASS, Beidou, Galileo-ready) smart antenna is latest Acutime product of integrated GNSS technology in a rugged and weatherproof self-contained unit.

The Acutime[™]360 is an integrated pipe thread-mounted multi-GNSS receiver, antenna and power supply solution in a single environmentally sealed easy to install enclosure.

Demonstrated Performance

The Acutime[™]360 design continues the Trimble line of GNSS smart antennas, which have been in production since 1991. The Acutime[™]360 is optimized for precise timing and network synchronization needs, including broadband wireless applications.

It provides a cost effective and independent timing source (within the firewall) for any application, such as fault detection systems and synchronization of wireless networks...



Power Efficiency & Performance

The Acutime[™]360 Multi-GNSS smart antenna requires less than 1 Watt to operate. Once power is applied, the Acutime[™]360 smart antenna automatically tracks satellites and surveys its position to within meters. It then switches to overdetermined time mode and generates a pulse-persecond (PPS) output synchronized to UTC within 15 nanoseconds (one sigma), outputting a time tag for each pulse

Acutime™360 Starter Kit Option

The Acutime[™]360 Starter Kit makes it easy to evaluate the exceptional performance of this multi-GNSS smart antenna and integrate advanced technology into your system..



ACUTIME™ 360 MULTI-GNSS SMART ANTENNA

GENERAL SPECIFIATIONS

Receiving SignalGPS, GLONASS, Galileo ¹ , Beidou
Positioning SystemSPS, Timing
1 PPS Timing Accuracy15 ηs (1 sigma)
Update Rate1 Hz
Typical Min Acq Sensitivity148dBm cold start
Typical Min Tracking Sensitivity160dBm
Time to First Fix ² <46s (50%), <50s (90%) cold start
Typical Time to Re-acquisition<2s (90%)
Accuracy Horizontal Position<6m (50%), <9m (90%)
Accuracy Vertical Position <11m (50%), <18m (90%)

¹ Hardware ready: a firmware update is required to enable the Galileo constellation.

INTERFACE CHARACTERISTICS

Serial Port	2 serial port
Protocols	TSIP, NMEA 0183
All ports support baud rates 4.8-115.2kbps	s: 8 data bits: E. O or no parity.

ELECTRICAL CHARACTERISTICS

Power+5VDC ³ to +36VDC, reverse polar	rity protection
Power Consumption	<1.0Watt
1 Reduced cable length @+5VDC to +12VDC	

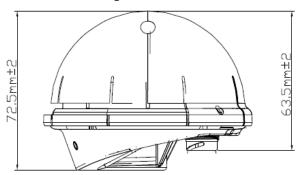
ENVIRONMENTAL SPECIFICATIONS

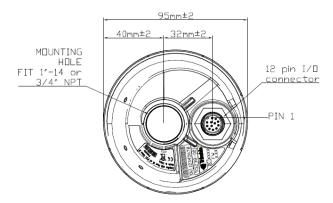
Operating Temperature	40°C to +85°C
Operating Humidity5%-95% RI	H non-condensing (+60°C)
Storage Temperature	55°C to +105°C
Ingress Protection	IP67
EMC	CE, FCC Class B

PHYSICAL CHARACTERISTICS

Dimensions	95mm x 72.5mm
	(3.74" D x 2.85" H)
Weight	5.4oz (154grams)
Connector	12-pin round, waterproof
Mounting1"-14 straig	ht thread or ¾" pipe thread

Mechanical Drawing





Visit <u>www.trimble.com/timing</u> for part numbers and information about where to buy.

 ${\it Parts~of~the~product~are~patent~protected}.$

Trimble has relied on representations made by its suppliers in certifying this product as RoHS-II compliant

 ${\it Specifications \ subject \ to \ change \ without \ notice}.$

Trimble Navigation Limited is not responsible for the operation or failure of operation of GPS satellites or the availability of GPS satellite signal.

NORTH AMERICA

Trimble Navigation Limited Corporate Headquarters 935 Stewart Drive Sunnyvale, CA 94085 Phone: +1 408.481 7741 timing@trimble.com

EUROPE

Trimble Navigation Europe Phone: +4670-544-1020

KOREA

Trimble Export Ltd. Korea Phone: +82-2-555-5361

CHINA

Trimble Navigation Ltd. China Phone: +86-10-8857-7575



² The performance criteria and times given for TTFF & reacquisition are with GPS satellites in the constellation set.