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.

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-per-second (PPS) output synchronized to UTC within 15 nanoseconds (one sigma), outputting a time tag for each pulse.

Demonsrtated 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..

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 SPECIFICATIONS
Receiving Signal..............GPS, GLONASS, Galileo¹, Beidou
Positioning System............................SPS, Timing
1 PPS Timing Accuracy.........................15 ns (1 sigma)
Update Rate........................................1 Hz
Typical Min Acq Sensitivity.............-148dBm cold start
Typical Min Tracking Sensitivity............-160dBm
Time to First Fix²..............<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.
² The performance criteria and times given for TTFF & reacquisition are with GPS satellites in the constellation set.

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

ELECTRICAL CHARACTERISTICS
Power.........................+5VDC to +36VDC, reverse polarity protection
Power Consumption..............................<1.0Watt

¹ Reduced cable length @+5VDC to +12VDC

ENVIRONMENTAL SPECIFICATIONS
Operating Temperature...................-40°C to +85°C
Operating Humidity......5%-95% RH 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
Mounting..............1”–14 straight thread or ¾” pipe thread

Mechanical Drawing

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

Parts of the product are patent protected.

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

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.