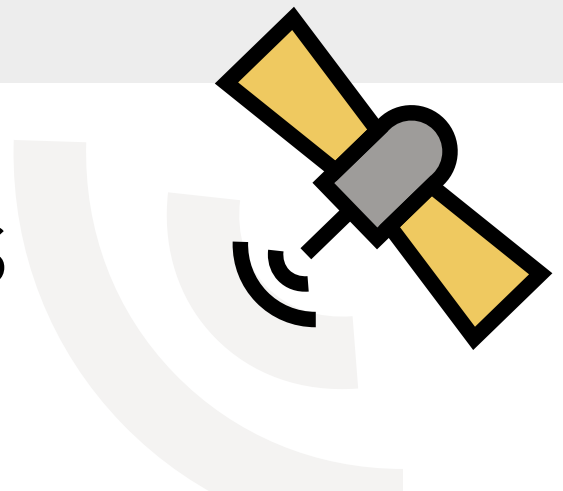


# Acutime™360 Multi-GNSS Smart Antenna



## Multi-GNSS Smart Antenna

The Protempis Acutime™360 Multi-GNSS (GPS, GLONASS, Beidou, Galileo-ready) smart antenna is latest Acutime product of integrated GNSS technology in a rugged and weather-proof 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 Protempis 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-per-second (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.



## 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)



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## 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

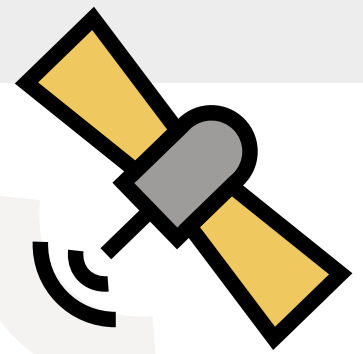
## Electrical Characteristics

Power.....	+5VDC3 to +36VDC, reverse polarity protection
Power Consumption.....	<1.0Watt

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

## Environmental Specifications

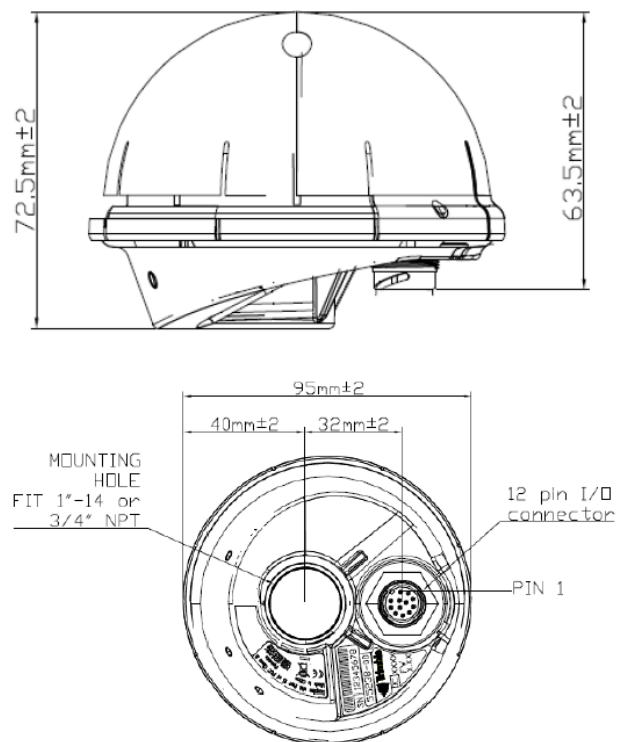
Operating Temperature.....	-40°C to +85°C
Operating Humidity.....	5%-95% RH non-condensing (+60°C)
Storage Temperature.....	-55°C to +105°C
Ingress Protection.....	IP67
EMC.....	CE, FCC Class B



## 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 3/4" pipe thread	

## Mechanical Drawing



Please go to [www.protempis.com](http://www.protempis.com) for the latest documentation and tools, part numbers and ordering information.

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