Azimuth Pointing System™ (APS)

Overview

The Azimuth Pointing System™ (APS) is a GPS-based compass that provides True North and Grid North azimuth, GPS or UTM position - all in one device.
It also has an integrated inclinometer, which allows the system to provide a complete orientation solution.
With an LTI TruPulse laser rangefinder, the APS is a powerful all-in-one total station that does not require benchmarks or backsights to produce remote GPS coordinates.

Since the APS is not using the earth's magnetic field to determine azimuth, it is not affected by ferrous anomalies (metal) from the ground or surrounding structures.

Optional accessories


Illuminated sighting scope


LTI TruPulse laser rangefinder


Laser reference line


Soft carrying case


Ruggedized shipping case

MultiWave Sensors™

Specifications

Performance

Azimuth accuracy:	<0.2° if GPS integrity is 80% or better 0.2° to 0.5° if GPS integrity is 50% to 80% 0.5° to 1.0° if GPS integrity is 30% to 50% 1.0° to 2.0° if GPS integrity is 30% or below
Tilt accuracy:	± 0.2° (±0.1° typical)
GPS positional accuracy:	Sub meter (with SBAS): 60 cm (2 ft) or better 2.5 m (8 ft) when SBAS not available

Physical

Dimensions:	10 cm x 66 cm x 13cm (HxLxW) (4"x26"x5") with no attached options
Weight:	3.5 lbs (1.6 kg) without options (laser and sighting scope)
Enclosure:	Polycarbonate
APS mounting:	1/4-20 and 5/8-11 threads for camera or survey tripod
Mounting for options:	Sighting scope track and laser bracket attach to sides
LCD:	128x64 graphic transreflective with backlighting
Sound:	Programmable duration for button push tones
Membrane panel:	Custom panel with application hotkeys and menu system
Charging port:	Located on back panel between Output Port and Laser Port

Operational

Display modes on LCD:	*Basic Heading* (True North or Grid North or User True or User Grid, Tilt and GPS or UTM coordinates) *Signal Intensity* (bar chart of signal strength) *Laser Offset* (Remote Point Latitude, Longitude, Elevation or Remote Point Northing, Easting, Elevation) *Missing Line* (Remote Vector and GPS/UTM Coordinates)

Power

Internal battery:	Internal rechargeable lithium ion batteries
Operation time:	6.8 hours of use from full charge
Battery monitor:	Displays remaining usage time in 0.1 hour increments
Battery charger:	Lithium Ion smart charger (1.5 hours max charge time)
On/Off button:	Membrane panel button with LED indicator

Communications

Output port:	For downloading data to PC, PDA or Data Collector
Protocol:	Programmable baud, 8 data bits, no parity, 1 stop bit
Download cable:	Connects Output Port to computer (DB9)
Bluetooth:	Optional Class 1 Bluetooth
Format:	NMEA formats ($GPGGA, $GPGMP and $PLTIT)
Custom format:	$T (combination of GPS, Azimuth and Diagnostic data)
Laser port:	For *Laser Offset* and *Missing Line* modes

Environmental

Operational temperature: -30° C to +60° C (-22° F to +140° F)

Sealing:	NEMA 4, IP65
Shock/vibration:	IEC 68-2-27 / IEC 68-2-6
EMI:	FCC Part 15 Subpart B:2008 and ICES-003:2004
Approvals:	CE FC
Options:	Illuminated sighting scope, TruPulse laser rangefinder (with brackets), soft carrying case, ruggedized shipping case, laser line

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