

# APS-XT-GPS



## Antenna Orientation and Location Sensing System

- Contains two GNSS receivers which are primarily designed to determine antenna Azimuth, Latitude, Longitude and Altitude in real-time, thanks to sophisticated differential algorithms
- It supports multiple navigation systems (GNSS) as GPS, GLONASS, Galileo, BDS and QZSS
- Mechanical Tilt and Roll are determined based on accelerometers MEMS sensors
- Works with AISG 2.1 controllers as an Alignment Sensor Device and Geographic Location Sensor
- Works with AISG 2.0 controllers in RET emulation mode
- Additional output port for GPS signal (SMA Female connector type)
- Available as a retrofit to site-installed ANDREW and Third Party antennas
- Long Term Monitoring
- Verify Installations

## Product Classification

**Product Type** RET actuator

## General Specifications

<b>AISG Input Connector</b>	8-pin DIN Male
<b>AISG Input Connector Quantity</b>	1
<b>AISG Output Connector</b>	8-pin DIN Female
<b>AISG Output Connector Quantity</b>	1
<b>GPS Output Connector</b>	SMA Female
<b>GPS Output Connector Quantity</b>	1
<b>Azimuth Note</b>	Accuracy may be affected by installation environment and satellite visibility
<b>Azimuth, nominal</b>	$\pm 2.5^\circ$
<b>Color</b>	Gray
<b>Elevation</b>	$\pm 5$ m
<b>Latitude</b>	$\pm 5$ m
<b>Longitude</b>	$\pm 5$ m
<b>Roll</b>	$\pm 1^\circ$
<b>Tilt</b>	$\pm 1^\circ$

## Dimensions

<b>Height</b>	99 mm   3.898 in
<b>Width</b>	325 mm   12.795 in

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**Depth** 166 mm | 6.535 in

## Electrical Specifications

<b>GPS Antenna Gain</b>	31±1 dB @ +25 °C (typical)   31±4 dB @ -40 °C to +70 °C (typical)
<b>GPS Frequency Band</b>	1575.42 ±5 MHz
<b>GPS Input Voltage, dc</b>	3.8-5.5 Vdc (dual power supply)
<b>GPS Current, dc</b>	≤ 30 mA
<b>GPS LNA Output 1dB Compression Point</b>	≥0 dBm
<b>GPS Noise Figure</b>	1.9 dB typical   2.5 dB maximum
<b>GPS Out of Band Rejection</b>	>35 dB @ 1575 ±50 MHz   >50 dB @ 1575 ±100 MHz
<b>GPS Passband Ripple</b>	≤1 dB @ 1575.42 ±1.023 MHz, typical   ≤2 dB @ 1575.42 ±5 MHz, typical
<b>Input Voltage</b>	10–30 Vdc
<b>Boot Time</b>	15 s
<b>Boot Time Note</b>	Exceeds AISG 2.0 and 2.1 requirements
<b>Electromagnetic Compatibility (EMC)</b>	CFR 47 Part 15, Subpart B, Class A   EN 55022   EN 55032   EN 61000-4-2   EN 61000-4-3   EN 61000-4-4   EN 61000-4-6
<b>Interface Protocol Signal</b>	RS-485
<b>Lightning Surge Capability Test Method</b>	IEC 61000-4-5
<b>Lightning Surge Capability Waveform</b>	1.2/50 voltage and 8/20 current combination waveform
<b>Lightning Surge Test Mode</b>	Common mode
<b>Power Consumption, maximum</b>	3 W
<b>Power Supply</b>	AISG (compliant with AISG 2.1 ASD and GLS, exceeds AISG 2.0 RET)
<b>Protocol</b>	3GPP/AISG 2.0 compliant

## Material Specifications

**Material Type** ASA

## Environmental Specifications

<b>Operating Temperature</b>	-40 °C to +70 °C (-40 °F to +158 °F)
<b>Relative Humidity</b>	Up to 95%, non-condensing
<b>Climatic Sequence Test Method</b>	IEC 60068-2-14
<b>Cold Exposure Test Method</b>	IEC 60068-2-1
<b>Corrosion Test Method</b>	IEC 60068-2-11, Test Condition Ka   IEC 60068-2-52, Test Condition Kb

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<b>Damp Heat Exposure Test Method</b>	IEC 60068-2-30, Test Condition Db
<b>Heat Exposure Test Method</b>	IEC 60068-2-2
<b>Ingress Protection Test Method</b>	IEC 60529:2001, IP56
<b>Packaged Product Shock Test Method</b>	ASTM D4169   GR-63-CORE, Section 4.1.1
<b>Rain Simulation Test Method</b>	IEC 60068-2-18, Test Condition Ra, Method 1
<b>UV Resistance Test Method</b>	IEC 60068-2-5, Test Condition B
<b>Vibration Test Method</b>	ASTM D4169   IEC 60068-2-6

## Packaging and Weights

**Weight, net** 1.5 kg | 3.307 lb

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
CE	Compliant with the relevant CE product directives
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on <a href="http://www.andrew.com/ProductCompliance">www.andrew.com/ProductCompliance</a>
ROHS	Compliant
UK-ROHS	Compliant

