



(231-2401-00)

AGU-1 Aircraft Gateway Unit



The AGU-1 delivers on the level of quality that our customers have come to expect. It combines 4G LTE and Iridium SBD communications technologies in a complete aircraft gateway solution.

Aircraft Tracking & Communication Features

The AGU-1 provides base aircraft tracking functionality. Leveraging the Iridium satellite and Cellular LTE communications networks, the AGU-1 provides 15 second Cellular and 1 minute Iridium position reporting.



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Iridium Satellite Transceiver

Global satellite communications with the low latency Iridium Short Burst Data (SBD) technology.



Cellular LTE Cat 1 Transceiver

Worldwide LTE, UMTS/HSPA+ and GSM/GPRS/EDGE coverage.



GNSS Positioning Receiver

Concurrent reception of 3 GNSS satellite systems: GPS, GLONASS, GALILEO and BeiDou



Event Reporting

Interfacing aircraft sensors to the AGU-1's discrete switch input pins provides additional event reports.



Engine Start/Stop



Take-off & Landing



Hover Entry & Exit
(Detected based on airborne state and GPS ground speed)

Hardware Features

Robust BNC and TNC connectors ensure a reliable coaxial connection to external antennas. The following interfaces are provided via the proven 26 Pin D-Sub High Density connector design:

9 - 30VDC Power input

External Configuration Module

2x RS-232 Transceivers

1x ARINC 429 Receiver

1x CAN BUS Transceiver

6x Digital Discrete Inputs (28VDC to HI-Z or GND to HI-Z Configurable)

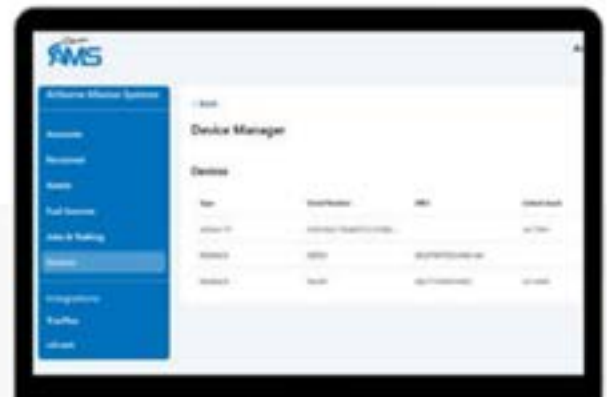
2x Digital Outputs (Emergency Indicator / Fail Status Indicator drive)

WiFi/Bluetooth Transceiver

The device can be powered via USB-C for easy on-bench configuration and initial setup. The device will operate with basic tracking functionality on USB-C 5VDC power however peripherals on the main connector will be inoperative.

Trusted Integration Partners

At Airborne Mission Systems we pride ourselves on having great working relationships with the biggest names in aircraft tracking services and will continue to deliver new integrated software partners. The cloud management system provides tools to help connect to these partners.



Cloud Connected

The AGU-1 is supported by a cloud management system, providing over-the-air services that include:



Configuration



Firmware



Asset/Device provisioning

The cloud service is a hub and consolidates all transmitted data, ready to be routed to 3rd Party Integrated Services.

Currently our integration partners are:



Specifications

Power Input	9 to 30VDC; 12W Max consumption
Power Consumption	12W Max consumption (peak) 8W Typical
Interfaces	6x Discrete Inputs 2x Discrete Outputs 2x RS232 Ports ARINC 429 In CAN Bus
Unit Size	123.5mm Width x 94.5mm Depth x 25.3mm Height
Weight	0.3 kg
Mounting Type	4x 10-32 UNC Tapped mounting threads; 4x 8-32 holes in flanged base
Wireless Communications	WiFi Bluetooth (LE) Iridium Satellite (SBD) 4G LTE Cat 1 GNSS Receiver
Operating Temperature	-45 to +70 degrees Celcius
Storage Temperature	-55 to +85 degrees Celcius
Operating Altitude	Up to 35,000 Feet
Environmental Qualification	TBA, Expect RTCA DO-160G
Compliance	RCM, UKCA, CE, FCC



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