Flight Data Systems

ANALOG & DIGITAL SIGNAL ACQUISITION

MODULAR ACQUISITION UNIT (MAU)

United Kingdom | United States | Australia

CAPABILITIES

- Extremely compact and lightweight — weighs as little as 1.5 lb. (0.68 kg)
- Modular hardware and software design
- Safety-critical soft-core procoessor for customer loadable software analysis
- Internal ambient temperature sensor
- Data output via ARINC 429 and ARINC 717
- Internal, non-volatile memory
- Qualified to DO-160G & MIL-STD-810F/461F/704F
- Software-defined data acquisition

MAU AT A GLANCE

The Modular Acquisition Unit (MAU) provides a custom solution to suit aircraft configurations with minimal engineering. The MAU is designed to fit general, business and military aircraft which require a standalone flight data acquisition system. The MAU provides 24 channels per expansion module. RS-422 data can also be acquired on an aircraft-specific basis.

The MAU's robust machined aluminium enclosure, along with the MIL SPEC D38999 connectors, provide protection for most operational environments making it suitable for both fixed and rotary wing aircraft. The hard mount, compact configuration enables it to be fitted in any orientation, simplifying the installation process.

The MAU supports a wide range of signal input types including ARINC 717, ARINC 429, GPS signal, analog inputs such as synchro, pitot/statics and discretes.

It provides a standard ARINC 429 and ARINC 717 output data stream which is compatible with ARINC 429 and ARINC 717 flight data recorders.

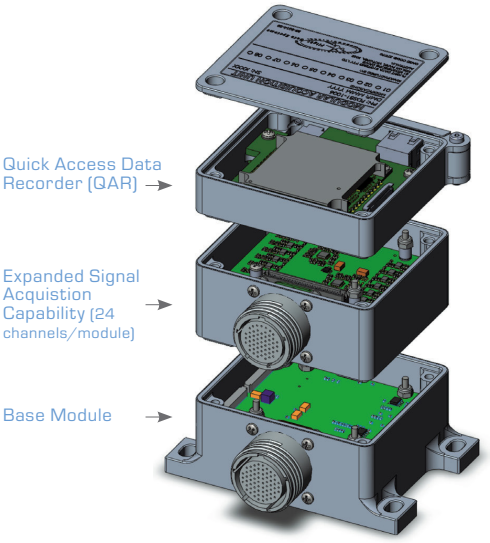
Due to its small size, the MAU can be readily mounted on the airframe and does not require a pressurized location.

A 4.3-inch shielded touch screen LCD with optional NVG Class A capability is also available.

MAU SPECIFICATIONS

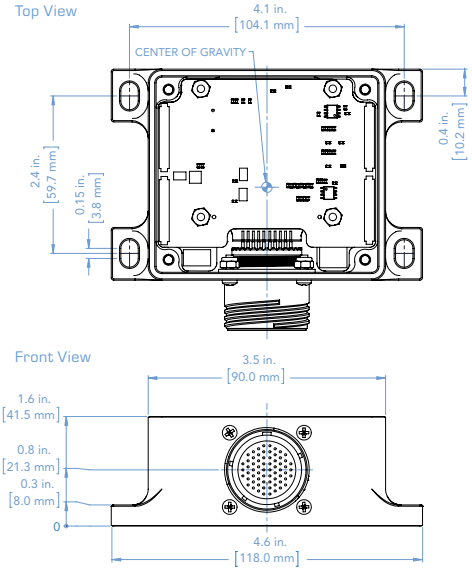
Lightweight, software-defined analog and digital data acquisition unit.

MAU Expanded View

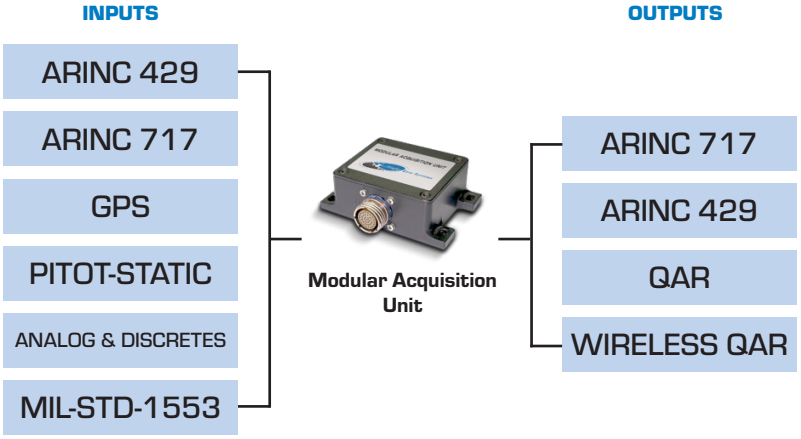


Type	Description
Physical Dimensions (in.)	1.4 in. H (min.) x 3.9 in. D x 4.6 in. W
Physical Dimensions (mm.)	35mm H x 100mm D x 115mm W
Weight	1.5 lb. nominal
Inputs (up to 24 bit w/ 2 megasamples/second/channel)	ARINC 429, ARINC 717, MIL-STD-1553 Analogs, Discretes, Synchros, LVDT, Remote Data Concentrator (RDC)
Output	ARINC 429, ARINC 717
Power (Input Power)	28 VDC
Power (Consumption)	5 Watts
Main Connector	MIL-C-38999 Series II, 66-pin
Environmental Certifications	DO-160G & MIL-STD-810F/461F/704F
Operating Temperature	-55˚C to 70˚C
Non-operating Temperature	-55˚C to 85˚C
Humidity	100%
Operational Altitude	55,000 ft.
Operational Shock	20 g
EMI/EMC	DO-160G, MIL-STD-461F/704F
Reliability	>12,000 operating hrs. MTBF
Cooling	Passive convection
Additional Capabilities	• Quick Access Reocrder (QAR) • 115 VAC, 400 Hz power • Available 4.3-inch EMI-shielded touchscreen LCD with optional NVG Class A capability • Internal, non-volatile memory (up to 64 GB)

MAU Dimensions



MAU Functional System Block Diagram



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