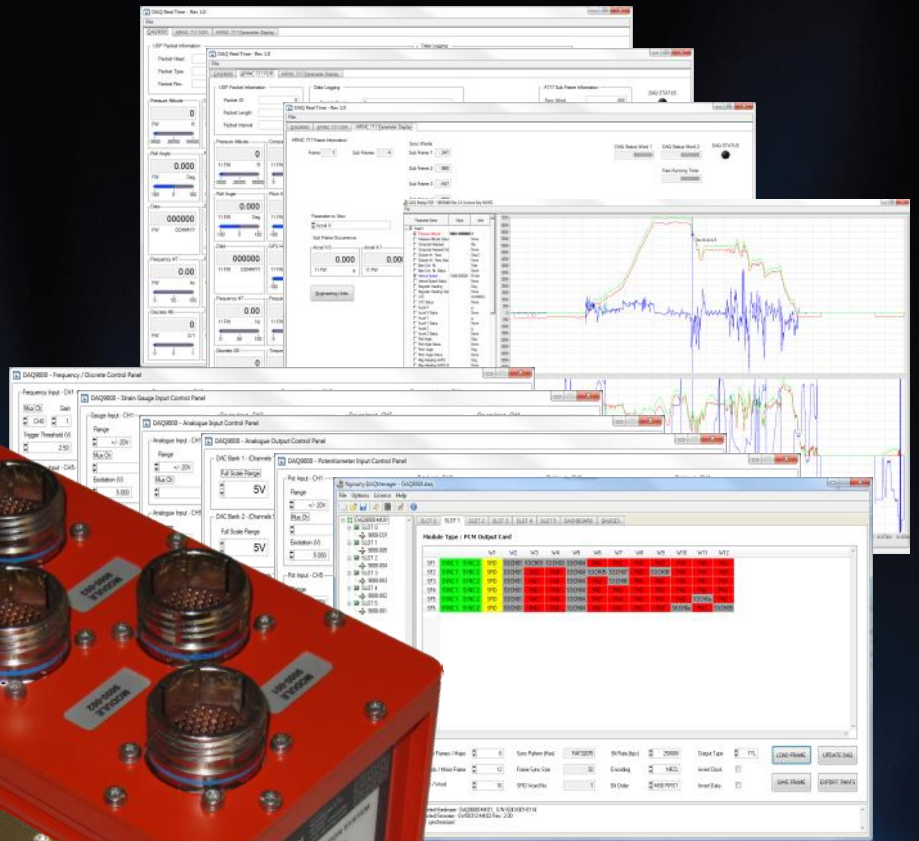


PRODUCT SHEET

DAQ9000

Data Acquisition System



Product Features

- Multi Function Data Acquisition System
- Data protocol and format conversion
 - Flight Data Acquisition Unit
 - Data Concentrator
 - Flight Test Instrumentation
- Interchangeable modular functionality
- Input/Output and Combined I/O Modules
- Integrated GPS, includes UTC time stamping of data
- Interfaces to Nginuity Inertial and Air Data Sensors
- All data processed internally in engineering units
- Slot Zero Master System Controller
- Flexible user configuration and parameter mapping
- Up to 32GB Storage for Recording
- 1GHz Parallel ARM Cortex DSP + FPU Processing



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PRODUCT OVERVIEW

DAQ9000

Data Acquisition and Protocol Conversion System

A comprehensive Data Acquisition System with recording

Fully configurable Protocol Converter, Data Concentrator and Flight Data Acquisition Unit

Standard chassis available for 5 user modules, with 2 or 9 module options

Strain Gauge Module

- 4 or 12 independent channels per module
- 4 wire connection with wire fault detect
- Each channel is user configurable for :-
 - Sensor supply up to 12.5V and up to 20mA
 - Full scale range from +/-20mV to +/-20V
 - Sample rate up to 1kHz at 24 bits

Potentiometer Module

- 4 or 12 independent channels per module
- 3 wire connection with wire fault detect
- Each channel is user configurable for :-
 - Pot supply up to 12.5V and up to 20mA
 - Full scale range from +/-20mV to +/-20V
 - Sample rate up to 1kHz at 24 bits

Analogue Input Module

- 8 or 16 independent channels per module
- Full differential measurement with wire fault detect
- Each channel is user configurable for :-
 - Full scale range from +/-20mV to +/-20V
 - Single ended measurement with internal reference
 - +/-12.5V range
 - 16 or 32 single ended inputs, if multiplexed
 - Sample rate up to 1kHz at 24 bits
- Up to 4 channels of thermocouple input

Analogue Output Module

- Up to 40 independent analogue outputs
- Each bank of 8 channels is user configurable for :-
 - Output full scale range from +/-2.5V to +/-12.5V or 0-5V to 0-12.5Vdc
- Up to 8 channels can be user configured for current output up to +/-2.5mA

Avionic Interface Modules

- 2/4/8/16 ARINC 429 Inputs/Outputs at 9.5 to 125kHz
- ARINC 419/561/568/575 Input /Output
- 2 ARINC 573/717 Input/Output from 64 to 4096 wps
- 1/2/4 dual redundant MIL-STD-1553B interfaces
- 1/2/3 ARINC 407 Synchro Input

Colour

Orange or Black

Frequency / Discrete Modules

- Up to 8 independent frequency/tacho inputs
- Each input is user configurable for :-
 - Input voltage : 30mV to 24Vac or 100mV to 70Vdc
 - Frequency range 0.01 to 10kHz
- Compatible with standard engine tachometers
- Up to 8 independent frequency/PWM outputs
- +32Vdc open collector output with sink of 100mA
- Each output is user configurable for :-
 - Frequency range 0.01 to 10kHz
- Up to 32 discrete inputs, each +28Vdc compatible
- High impedance or opto-isolated operation available
- High side or low side switching
- Up to 10 discrete outputs
- Opto-isolated
- High side or low side switching
- Either 4.5 to 32Vdc current limited operation or up to 100Vac/dc compatibility (configured in manufacture)

Serial Interfaces

- IRIG 106 –13 PCM Data Output up to 2MHz
- Each user module has the following serial interfaces :-
 - 2 off RS232 Rx/Tx or 1 off RS422/485 Rx/Tx
 - 1 off ARINC 825/CAN Spec 2.0B Rx/Tx
- These can be user configured to provide real time output for monitoring and telemetry or for interface to external equipment such as optional modules and a range of industry standard module interfaces are available.

Slot Zero Master System Controller

- Ethernet 10/100baseT/AFDX/Video over IP/UDP
- Solid state recording up to 32GB
- 66 channel 10Hz GPS/1Hz DGPS
- Full speed USB 2.0
- Battery backed real time clock
- System is +28Vdc powered

External Module Options

- Inertial Sensor Module
- Air Data Sensors
- Real Time Serial/UDP Telemetry or Virtual Instrument
- Robust Data Recording Module

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