



DIGITAL FLIGHT DATA ACQUISITION UNIT DFDAU 2233000-81X



The Teledyne Controls Digital Flight Data Acquisition Unit (DFDAU) is a sophisticated Aircraft Condition Monitoring System (ACMS) that provides aircraft operators with a standardized hardware and software solution for data acquisition, management and recording. Its enhanced ACMS software offers extensive flexibility, enabling users to specify the parameters they need for flight data monitoring, maintenance, and operational efficiency, without the artificial constraints usually imposed by other systems.

Introduced to the market in the late 90s, Teledyne's latest generation DFDAU is a service proven solution that has been adopted by hundreds of civil and military operators worldwide.

ACMS FUNCTIONAL CAPABILITIES

Fully programmable ACMS software system via Teledyne's Windows based Application Generation Station (AGS)

IDU/MCDU/MICDU/MIDU Interface:

- Reprogrammable display menus including real-time reprogrammable report
- ARINC 429 Label call up display
- Mnemonic call up display
- Stored reports directory including last flight
- QAR and PCMCIA Start/Stop Control
- Password protection provided
- Report distribution changes
- Constant modification
- ADL/PDL Upload/Download Menu

QAR/Optical QAR Interface:

- 64, 128, 256, 512, 1024 and 2048 Output rates selectable
- Internal 640MB optical disk provides the equivalent of thirty five 600ft tapes
- Programmable history buffer length (20 to 48 seconds)
- Optional data compression

Printer Interface:

- 40, 53, 64, and 80 column print formats
- ARINC 597/740/744/744A
- Reprogrammable report formats

Other Peripherals:

- Interfaces for 615 ADL and PDL
- ACARS interface, 724, or 724B
- Automatic or manual message generation for down linking
- Supports uplink requests

DFDAU ENHANCED CAPABILITIES

- An easily programmable dual processor which supplies data to the mandatory Digital Flight Data Recorder
- Increased I/O capability to support the expanded interface requirements of multiple aircraft types
- A front panel display for easier access and readability of the DFDAU operation
- Interchangeable across multiple aircraft types in single unit (up to 18 independent uploadable DFDR data frames)
- Up to 512 WPS, which meets/exceeds new regulatory agency requirements
- Dual processor design ensures isolation and allows full ACMS user programmability without re-certification
- Cockpit Voice Recorder (CVR) time synchronization output

Characteristics of DFDAU:

- Intel 80486 based mandatory (DFDR) processor
- Motorola 68020 based ACMS processor
- Reduced card count requires less power
- Lower weight
- Higher reliability due to less power and new technology

Integrated Recording Module (Floppy, Optical or PCMCIA)

- Recorder installed inside unit
- Supports recording of raw and message (report) data
- Eliminates need for separate recorder wiring on aircraft
- Supports either 1.44MB Floppy, 640MB magneto optical, or PCMCIA ATA Type II or Type III
- Supports uploading ACMS from this module

Front Panel 16 Character Alphanumeric Display

- Multiple Software Part numbers displayed
- Faults are displayed in user friendly text instead of codes
- Battery backup allows viewing of software versions and fault messages without external power

Input Capabilities

- 46 429 input ports (expandable to 64) available to both the mandatory and ACMS processors independently
- 57 programmable analog input ports (53 3 wire, 4 4 wire)
- 180 discretes
- 3 spare slots for future functions

Supports Installation on the following Aircraft Types

- B737-Classic and B737-NG
- B757
- B767
- MD11 and MD90
- F100/70
- A300/310
- C130

