ETHERNET ENABLED DIGITAL FLIGHT DATA ACQUISITION UNIT
DFDAU 2233000-9X6

Teledyne Controls' enhanced Digital Flight Data Acquisition Unit (DFDAU) is an integrated system that combines the functions of Mandatory Data Acquisition and Recording with a sophisticated Aircraft Condition Monitoring System (ACMS). This comprehensive system provides aircraft operators with a standardized hardware and software solution for high-power data acquisition, management and recording in an internal PCMCIA recorder.

High-Speed Data Processing and Ethernet Connectivity

Designed to meet the extensive data management requirements of newer aircraft, Teledyne's DFDAU-9X6 is the latest family of acquisition units which supports faster data processing, increased performance and higher reliability. The DFDAU-9X6 family is also equipped with optional Ethernet capabilities for high-speed transfer of data to Ethernet-based equipment, such as wireless data communication systems. The DFDAU's ACMS software is extensively flexible, allowing users to define the parameters and reports they need for flight data monitoring, maintenance, and operational efficiency, without the artificial constraints typically imposed by other software systems.

Initially introduced to the market in 2003, Teledyne's latest generation of DFDAUs are service proven systems that have been adopted by hundreds of commercial and military operators worldwide.

DFDAU-9X6 CAPABILITIES

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 even when the unit's power is off

Supports Installation on the following Aircraft Types
- B737-NG
- P8
- C130
- HU25
- E-6B

Input Capabilities
- Up to 64 A429 input ports available for both the mandatory and ACMS processors independently
- 57 programmable analog input ports: 3 wire (53), 4 wire (4)
- 180 discretes
- 3 spare slots for future functions

Output Capabilities
- Ethernet (down-load and program-load)
- ARINC 429 (MCDU, printer, DataLink)
- ARINC 717 (FDR, QAR, WQAR, OQAR, DAR)

FLIGHT RECORDING ACQUISITION CAPABILITIES (MANDATORY ACQUISITION)

- Interchangeable across multiple aircraft types (up to 18 independent uploadable DFDR data frames)
- Up to 512 WPS, which meets/exceeds new regulatory agency requirements for FDR recording
- Dual processor design ensures isolation and allows full ACMS user programmability without re-certification
- Cockpit Voice Recorder (CVR) time synchronization output

D   F   D   A   U   2   2   3   3   0   0   0   -   9   X   6

501 Continental Boulevard, El Segundo, CA 90245 USA
Tel: +1 310 765 3600 Fax: +1 310 765 3604/3605
www.teledynecontrols.com

TELEDYNE CONTROLS
A Teledyne Technologies Company

ACMS CAPABILITIES

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

MCDU/MICDU/MIDU Interface:
- Reprogrammable display menus including real-time reprogrammable reports
- ARINC 429 label call up display
- Mnemonic call up display
- Stored reports directory including last flight
- Recording Start/Stop Control
- Password protection
- Report distribution changes
- Constant modification
- ADL/PDL Upload/Download Menu

External QAR/Optical WQAR Interface:
- 64, 128, 256, 512, 1024 selectable output rates
- Programmable history buffer length (20 to 48 seconds with optional data compression, data logging option)

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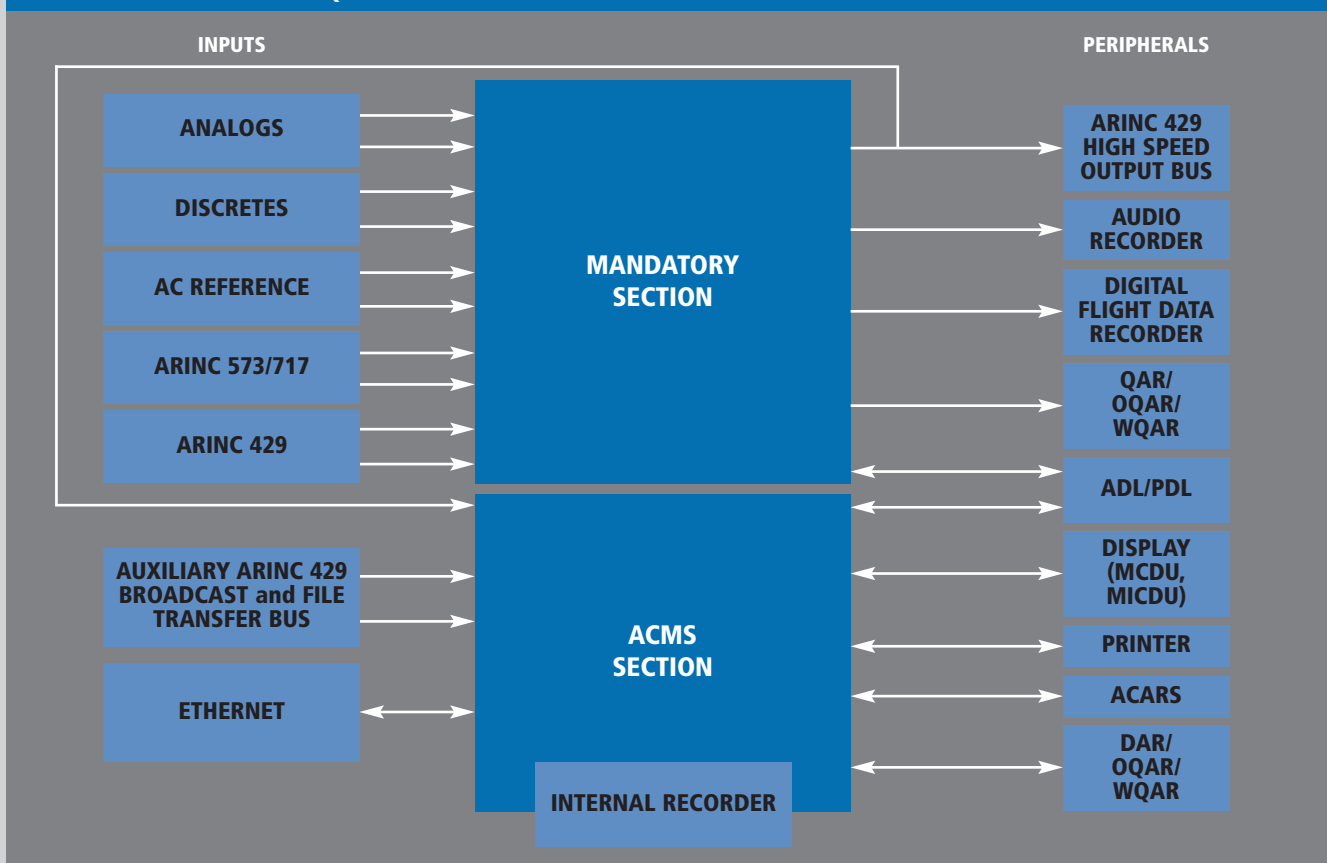- Reprogrammable report formats

Other Peripherals:
- Interfaces for ARINC 615A (OPTION) ADL and PDL
- CMU ARINC 758, ACARS ARINC 724B
- Automatic or manual message generation for down linking
- Supports uplink requests

Integrated Recording Module (PCMCIA)
- Recorder installed inside unit
- Supports recording of raw data and message (report) data
- Eliminates need for separate recorder wiring on aircraft
- Supports up to 2GB PCMCIA ATA Type II
- Supports uploading ACMS from this module

DIGITAL FLIGHT DATA ACQUISITION UNIT INTERFACE DIAGRAM

INPUTS

PERIPHERALS

ANALOGS

DISCRETES

AC REFERENCE

ARINC 573/717

ARINC 429

MANDATORY SECTION

AUXILIARY ARINC 429 BROADCAST and FILE TRANSFER BUS

ETHERNET

ACMS SECTION

INTERNAL RECORDER

ARINC 429 HIGH SPEED OUTPUT BUS

AUDIO RECORDER

DIGITAL FLIGHT DATA RECORDER

QAR/ OQAR/ WQAR

ADL/PDL

DISPLAY (MCDU, MICDU)

PRINTER

ACARS

DAR/ OQAR/ WQAR

Solutions for a Connected Aircraft

The DFDAU is an integral part of Teledyne Controls' end-to-end aircraft data management solutions. Designed to assist operators with their FDM/FOQA (Flight Data Monitoring/Flight Operations Quality Assurance) initiatives, these offerings include innovative airborne data acquisition products, air-to-ground wireless data transfer systems and ground-based applications and services that fit together to deliver greater benefits to operators and provide the total solution necessary for a successful flight safety program.

DFDAU 2 2 3 3 0 0 0 - 9 X 6

DIGITAL FLIGHT DATA ACQUISITION UNIT
DFDAU 2233000-8XX

Teledyne Controls' Digital Flight Data Acquisition Unit (DFDAU) is an integrated system that combines the functions of Mandatory Data Acquisition and Recording with a sophisticated Aircraft Condition Monitoring System (ACMS). This comprehensive system provides aircraft operators with a standardized hardware and software solution for high-power data acquisition, management and recording to an internal PCMCIA or magneto optical disk recorder.

The DFDAU's ACMS software is extensively flexible, allowing users to define the parameters and reports they need for flight data monitoring, maintenance, and operational efficiency, without the artificial constraints typically imposed by other software systems.

Teledyne's DFDAUs are service proven systems that have been adopted by hundreds of commercial and military operators worldwide.

DFDAU-8XX CAPABILITIES

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 even when the unit's power is off

Supports Installation on the following Aircraft Types
- B737-NG and B737 classic
- B757 and B767
- C130
- MD11 and MD90
- F100/70
- A300/310

Input Capabilities
- Up to 64 A429 input ports available for both the mandatory and ACMS processors independently
- 57 programmable analog input ports: 3 wire (53), 4 wire (4)
- 180 discretes
- 3 spare slots for future functions

Output Capabilities
- Ethernet (down-load and program-load)
- ARINC 429 (MCDU, printer, DataLink)
- ARINC 717 (FDR, QAR, WQAR, OQAR, DAR)

FLIGHT RECORDING ACQUISITION CAPABILITIES (MANDATORY ACQUISITION)

- Interchangeable across multiple aircraft types (up to 18 independent uploadable DFDR data frames)
- Up to 512 WPS, which meets/exceeds new regulatory agency requirements for FDR recording
- Dual processor design ensures isolation and allows full ACMS user programmability without re-certification
- Cockpit Voice Recorder (CVR) time synchronization output

D F D A U   2 2 3 3 0 0 0 - 8 X X

501 Continental Boulevard, El Segundo, CA 90245 USA
Tel: +1 310 765 3600 Fax: +1 310 765 3604/3605
www.teledynecontrols.com

TELEDYNE CONTROLS
A Teledyne Technologies Company

ACMS CAPABILITIES

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

MCDU/MICDU/MIDU Interface:
■ Reprogrammable display menus including real-time reprogrammable reports
■ ARINC 429 label call up display
■ Mnemonic call up display
■ Stored reports directory including last flight
■ Recording Start/Stop Control
■ Password protection
■ Report distribution changes
■ Constant modification
■ ADL/PDL Upload/Download Menu

Printer Interface:
■ 40, 53, 64, and 80 column print formats
■ ARINC 597/740/744/744A
■ Reprogrammable report formats

External QAR/Optical WQAR Interface:
■ 64, 128, 256, 512, 1024 selectable output rates
■ Programmable history buffer length (20 to 48 seconds with optional data compression, data logging option)
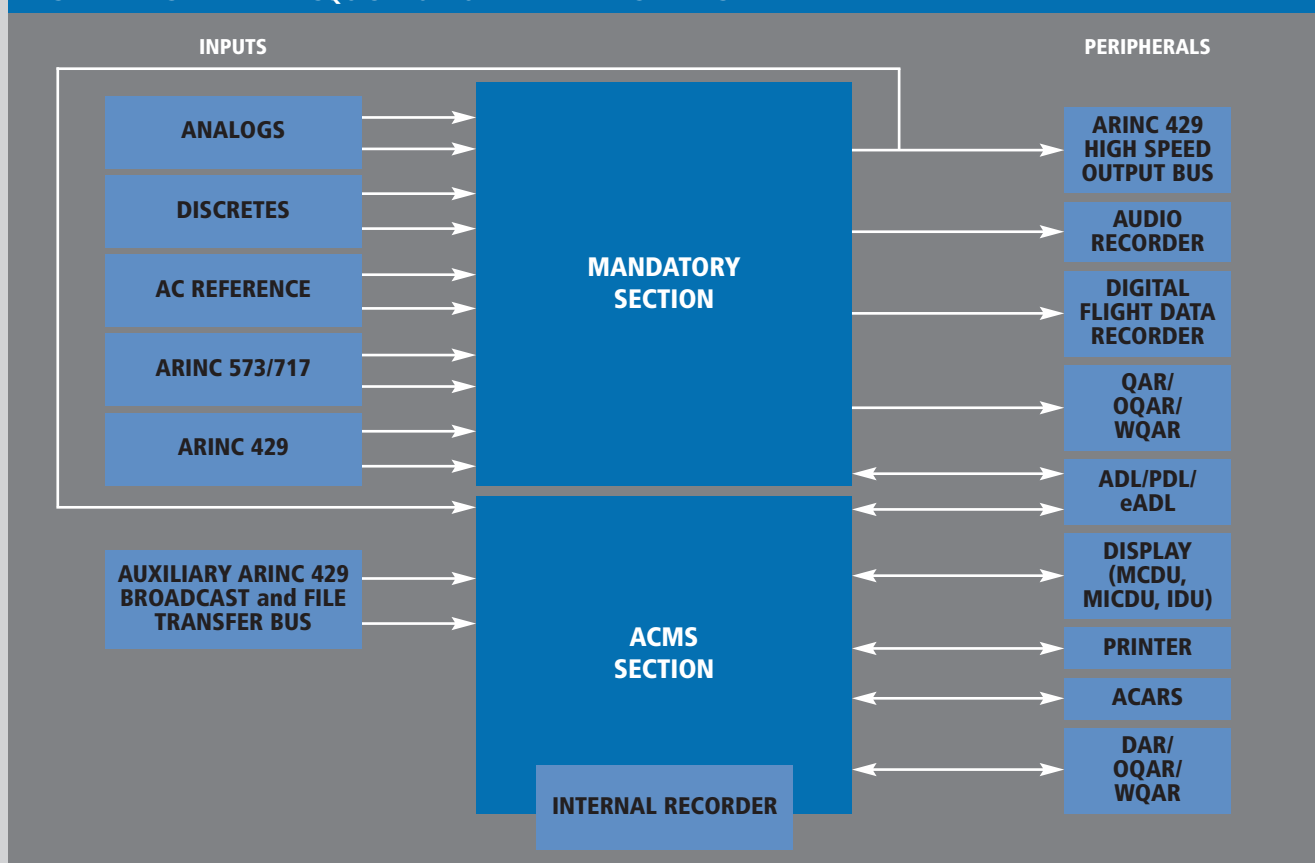
Other Peripherals:
■ Interfaces for ARINC 615 ADL and PDL
■ CMU ARINC 758, ACARS ARINC 724B
■ Automatic or manual message generation for down linking
■ Supports uplink requests

Integrated Recording Module (PCMCIA or Optical)
■ Recorder installed inside unit
■ Supports recording of raw data and message (report) data
■ Eliminates need for separate recorder wiring on aircraft
■ Supports up to 2GB PCMCIA ATA Type II, or up to 640MB magneto optical disks
■ Supports uploading ACMS from this module

DIGITAL FLIGHT DATA ACQUISITION UNIT INTERFACE DIAGRAM

INPUTS: ANALOGS, DISCRETES, AC REFERENCE, ARINC 573/717, ARINC 429, AUXILIARY ARINC 429 BROADCAST and FILE TRANSFER BUS

MANDATORY SECTION / **ACMS SECTION** / INTERNAL RECORDER

PERIPHERALS: ARINC 429 HIGH SPEED OUTPUT BUS, AUDIO RECORDER, DIGITAL FLIGHT DATA RECORDER, QAR/OQAR/WQAR, ADL/PDL/eADL, DISPLAY (MCDU, MICDU, IDU), PRINTER, ACARS, DAR/OQAR/WQAR

Solutions for a Connected Aircraft
The DFDAU is an integral part of Teledyne Controls' end-to-end aircraft data management solutions. Designed to assist operators with their FDM/FOQA (Flight Data Monitoring/Flight Operations Quality Assurance) initiatives, these offerings include innovative airborne data acquisition products, air-to-ground wireless data transfer systems and ground-based applications and services that fit together to deliver greater benefits to operators and provide the total solution necessary for a successful flight safety program.

D F D A U 2 2 3 3 0 0 0 - 8 X X