

# FDIMU

## Flight Data Interface Management Unit for Airbus Aircraft



### Mandatory Compliance, Aircraft Condition Monitoring, and Data Recording: 3 Functions in One Single Unit

With thousands of units in service and nearly three quarters of the Single Aisle (SA) and Long Range (LR) Airbus forward fit market, Teledyne Controls' Flight Data Interface Management Unit (FDIMU) is the industry standard for data acquisition on Airbus aircraft. This compact integrated data acquisition and recording system is available for installation on the A318/A319/A320/A321 and A330/A340 aircraft families, allowing operators with multiple aircraft types to utilize the same ACMS technology and programming tool across their fleet.

#### 3-in-1 Unit

Teledyne's FDIMU combines into a single unit the multiple functions of traditionally separated systems. It performs the functions of a Flight Data Interface Unit (FDIU) for mandatory data acquisition, a Data Management Unit (DMU) for engine/aircraft condition monitoring, and a Digital ACMS Recorder (DAR). This compact system can literally replace up to three LRUs, allowing operators to reduce weight, wiring and rack space for significant savings on initial equipment costs.

#### Extensive Flexibility to Process all Required Aircraft Parameters

The FDIMU is a state-of-the-art hardware and software solution which offers extensive flexibility, enabling users to specify the parameters they need for flight data monitoring, maintenance and operational efficiency, without the artificial constraints typically imposed by traditional data management systems. The purpose of the FDIMU is to acquire, condition, record and process all required aircraft parameters, and output them to one or two DFDRs at up to 1024 words per second (wps) to satisfy regulatory requirements. In addition, it can output a copy of the DFDR data to an external Quick Access Recorder (QAR), interact with cockpit displays (MCDUs), generate ACMS reports and send them to the printer, the ACARS/ATSU, the data loader and the Internal Recording Device (IRD) via PCMCIA interface. The FDIMU can also output user-defined parameters and ACMS reports to an external DAR such as Teledyne's GroundLink® Comm+ system, in addition to the internal IRD.

#### Highly Efficient and Lower Cost Seamlessly

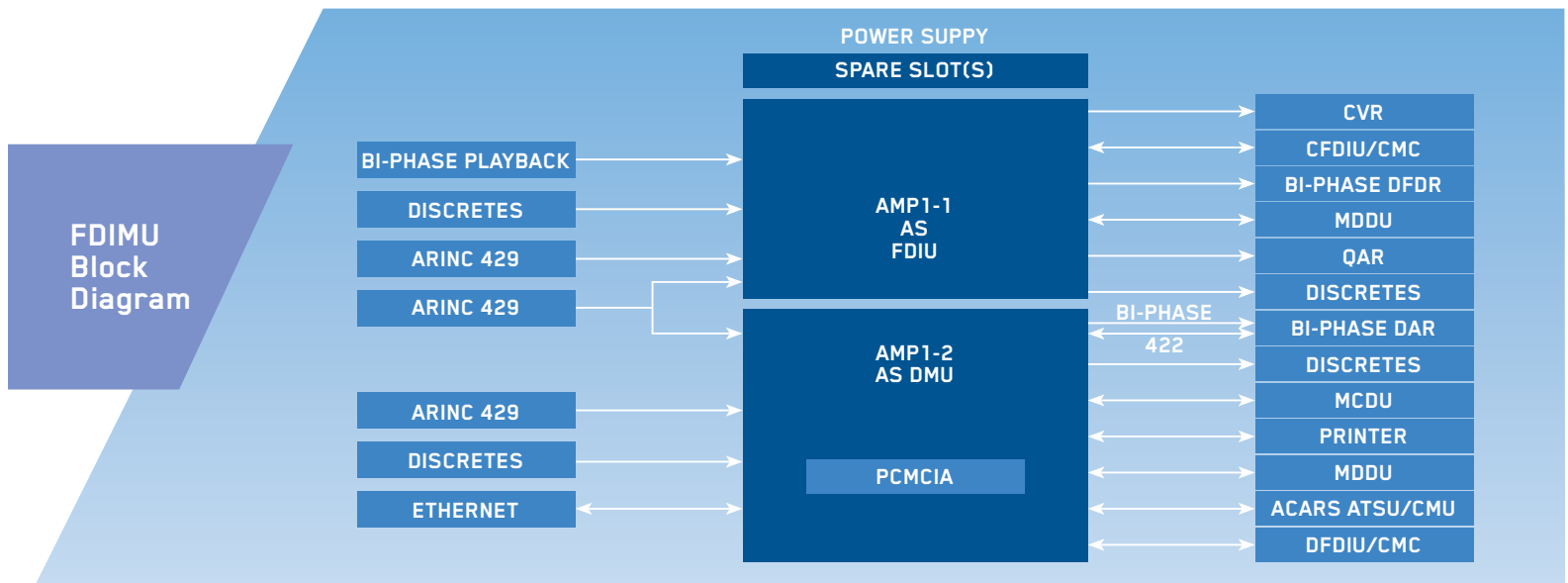
The FDIMU integrates with existing onboard equipment, giving airlines greater insight into their fleet's performance and operation. Today, the FDIMU is recognized as the most efficient and reliable system on the market, helping operators benefit from fewer system failures, less down time and lower costs.

## Key Benefits and Features

- Combines mandatory, ACMS and recording capabilities in one Line Replaceable Unit (LRU)
- Dual independent Power PC processors
- Software loadable using ARINC 615 Airborne/Portable Data Loader (ADL/PDL) as well as PCMCIA for ACMS applications
- ACMS software fully user programmable using Teledyne Controls Windows-based Applications Generation Station (AGS)
- Integral PCMCIA module for recording maintenance data as well as DFDR data
- The FDIU is capable of outputting data to one or two Flight Data Recorder(s) (FDR) at up to 1,024 words per second
- The FDIU is capable of outputting data to an external DAR at up to 2,048 words per second
- Can be installed in the DMU slot of existing aircraft for enhanced DMU capabilities

## Characteristics

**Form Factor:** SA: 3 MCU (A318, A319, A320, A321) LR: 5 MCU (A330, A340)  
**Weight:** SA: <9.5 lbs \ 4.3 kg LR: <11.5 lbs \ 5.22 kg  
**Input Power:** 115V, 400Hz



## FDIMU Technical Specifications

| Resources Description | Description                | Single Aisle | Long Range |
|-----------------------|----------------------------|--------------|------------|
| Discrete Inputs       | Ground/Open                | 81           | 94         |
| ARINC-429 Inputs      | High/Low Speed             | 69           | 77         |
| Recorder Inputs       | Harvard BiPhase (DFDR)     | 2            | 2          |
| Recorder Outputs      | Harvard BiPhase (DFDR/DAR) | 3            | 3          |
|                       | BipolarRZ (QAR)            | 1            | 1          |
|                       | Audio (AMU-CVR)            | 1            | 1          |
| Real-Time Clock       | Battery-Backed             | 1            | 1          |
| PCMCIA                | ATA, Type II Form-Factor   | 1            | 1          |
| Ethernet              | 10BaseT                    | 1            | 1          |
| Discrete Outputs      |                            | 11           | 11         |
| ARINC-429 Outputs     | High/Low Speed             | 6            | 5          |
| RS422 I/O (DAR)       | Communication I/O          | 1            | 1          |

## FDIMU Scheduled Availability

The FDIMU data acquisition unit is available on the Single Aisle (SA) and Long Range (LR) Airbus aircraft and is scheduled for future release on the Single Aisle Airbus NEO aircraft. Please contact your Teledyne Controls' representative for details.

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