

iDMU integrated Data Management Unit



Increase Data Processing Power with Teledyne Controls' New integrated Data Management Unit (iDMU)

Designed to meet the extensive data monitoring requirements of modern digital aircraft, the iDMU is Teledyne's new-generation Data Management Unit. Integrating the latest microcomputer technology, the iDMU delivers increased performance, while significantly reducing the circuit card count, which results in higher reliability and lower maintenance costs.

Multi-Function Unit

Teledyne's iDMU combines multiple functions into a single unit, allowing operators to reduce weight and power consumption. The unit integrates a data recording function via PC Card media for QAR/DAR and message data recording. Its enhanced ACMS (Aircraft Condition Monitoring System) function supports higher-capacity and faster data throughput, therefore facilitating both aircraft/engine performance monitoring, as well as advanced monitoring of daily flight operations.

Ethernet Enabled

The iDMU features an Ethernet connector which permits high speed data transfer to/from other Ethernet enabled systems. This facilitates data transmission within an airline's operations, therefore promoting initiatives for a "Connected Aircraft".

Flexible ACMS Capability

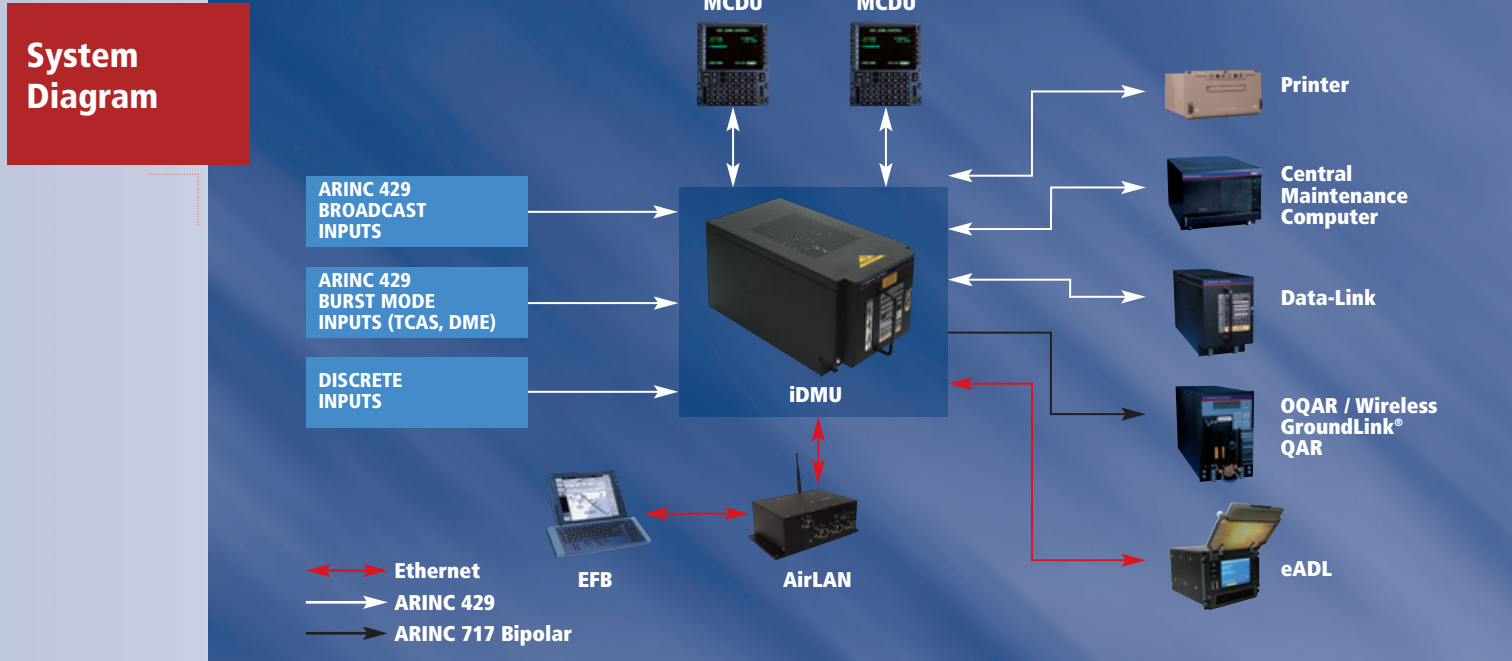
Like all other Teledyne airborne avionics systems, the iDMU is fully user-programmable via Teledyne's MS Windows-based Application Generation Software (AGS). This software tool allows operators to easily customize the various elements of their ACMS applications, such as QAR/DAR output data maps, MCDU screens and enhanced ACMS reports.

Teledyne's iDMU is certified on the Boeing 747-400 and 767-300 aircraft and is available for both retrofit and forward fit installations. The iDMU is also standard equipment on the 747-8, co-labeled and provided under sub-contract through Rockwell Collins.



KEY BENEFITS AND FEATURES

- ACMS and recording capabilities in one single unit results in reduced weight and power consumption
- Enhanced processor allows for higher-capacity and faster data processing and throughput
- Ethernet interface provisions support high-speed data transfer, such as application software upload and flight data download, to/from other Ethernet enabled systems, including data loaders, high-speed data link systems, on-board networks and electronic flight bags
- Fully user-programmable ACMS interface via Teledyne's AGS software tool *(for more information, please consult our AGS data sheet)*



ACMS REPORTING

The iDMU is delivered with a set of standard ACMS reports including:

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|------------------------|-------------------------|--------------------|------------------------------|
| ■ Engine Start | ■ In-flight Engine Fail | ■ Weather/Position | ■ SAGE or EHM Formatted |
| ■ Engine Aborted Start | ■ Take-off | ■ Limit Exceedance | ■ Take-off and Stable Cruise |
| ■ Engine Performance | ■ Stable Cruise | ■ Turbulence | |
| ■ Landing | ■ Flight Summary | ■ APU Start | |

Additional reporting capabilities can be programmed by Teledyne or the aircraft operator. A few examples of advanced reports are provided below:

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|----------------------------|---------------------------------|------------------------------------|-------------------------------------|
| ■ Turbulence Inspection | ■ Maintenance Report | ■ Flight Control | ■ Aircraft Stable Frame |
| ■ Engine Oil Monitoring | ■ EGT Divergence | ■ Aborted Take-off | ■ Max Operating Altitude Exceedance |
| ■ Ground Run-up | ■ Go-around Landing | ■ Flap/Slat at Altitude Exceedance | ■ Touch and Go Landing |
| ■ Maximum MACH Exceedances | ■ Flap Placard Speed Exceedance | ■ Engine Trend | |
| ■ Overweight Inspection | ■ Gear Down Speed Exceedance | | |

TECHNICAL CHARACTERISTICS

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|---------------------------------|---------------------------------|--------------------|------------|
| ■ Power Consumption: < 32 watts | ■ Connector: ARINC 600 Standard | ■ Enclosure: 6 MCU | ■ Ethernet |
| | | ■ Weight: < 12 lbs | |

SOLUTIONS FOR A CONNECTED AIRCRAFT

The iDMU is an integral part of Teledyne Controls' complete "Connected Aircraft" solution, which consists of bridging traditional avionics equipment with new Ethernet-based systems. By integrating a wide range of products that support both traditional ARINC 429 and TCP/IP interfaces, Teledyne's "Connected Aircraft" facilitates connectivity both onboard the aircraft, and between the aircraft and the airline's corporate network.

