iDMU integrated Data Management Unit

Increase Data Processing Power

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

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

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

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

Technical Characteristics:

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