

## DATA SYSTEMS



ACQUIRE & PROCESS RECORD TELEMETRY & STREAM REPLAY

# MDR

## Highly Versatile Airborne Data Acquisition, Recording & Dissemination System



Heilm



FLIGHT TEST INSTRUMENTATION

The MDR system allows collecting data in **complex and harsh airborne flight test environments**. Thanks to its modularity, the system will adapt from the lightest to the most extensive daily test requirements in terms of variety of signals to be recorded, environmental constraints and recording time.

A **wide range of signal interface modules** tailored to the most common data sources and busses ensure that today's and tomorrow's requirements will be addressed.

The **modular MDR design** provides the flexibility for choosing cost-effective systems or high-end FTI systems with high-capacity storage media. There are **mainframes** available with **2, 4 or 8 slots** for signal interface modules.

This configuration flexibility is completed by **advanced data processing** (filtering, decimation, etc.) and managing capabilities, including **UDP and most sophisticated Chapter 7 version 2017 streaming techniques**.



Flight Test Applications



In-Service Recording & Telemetry



Certification Tests

### SCALABLE MAINFRAMES

2 to 8 slots for signal interface cards

### EASY SETUP & RE-CONFIGURATION

In-the-field configuration, adaptable to any scenario

### HYBRID MODULES

Up to 4 different data types within one module

### FULL SPECTRUM OF INTERFACES

PCM, Ethernet, ARINC 429, MIL 1553, CAN, analog, video, serial, discrete...

### MULTI-RECORDING

Simultaneous recording of multiple data subsets in separate files on various storage media

PIONEER IN IRIG 106 CHAPTER 7  
TELEMETRY

## TECHNICAL SPECIFICATIONS

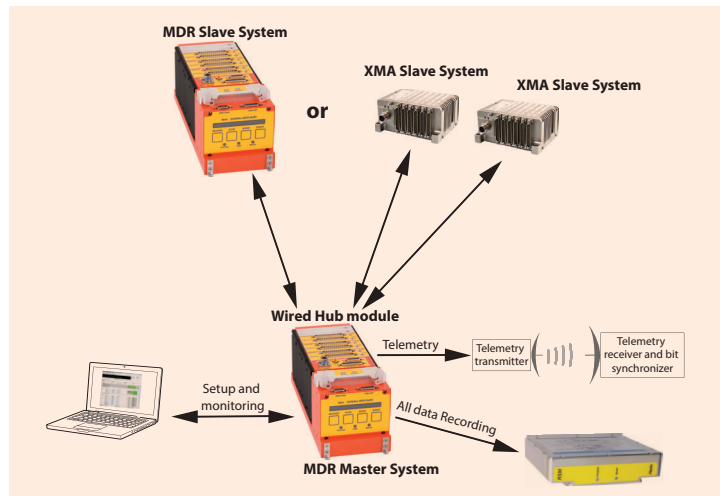
- Bit rate ..... 800 Mbit/s
- Ethernet ..... UDP broadcast, PTP (Precision Time Protocol; time code sync. IEEE 1588-2002/ IEEE 1588-2008), FTP server download function, remote control
- Time coding ..... IRIG A, B, G, 1 pps / 10 pps, GPS time code, PTP (Precision Time Protocol; IEEE 1588-2002 (slave) / IEEE 1588-2008 (slave))
- High precision oscillator 10ppb accuracy
- Built-in GPS receiver
- Real time clock (RTC)
- Temperature (operational) ..... MIL-STD-810F
- Vibration ..... MIL-STD-810F
- Shock/Acceleration ..... MIL-STD-810F
- Storage capabilities ..... CF-cards, SSD  
..... Capacity up to 3.2 TB
- Data format ..... IRIG 106 Chapter 10

## AVAILABLE IN 4 MAINFRAME VARIANTS

- MDR-2 ..... 2 module slots/CF card
- MDR-4 CF ..... 4 module slots/CF-card
- MDR-4 RC ..... 4 module slots/storage modules
- MDR-8 ..... 8 module slots/storage modules

## SPECIAL FEATURES

- ▶ Multi-file recording
- ▶ Multi-destination recording
- ▶ Access and streaming of pre-recorded data while recording
- ▶ Available bandwidth for streaming
- ▶ Support of native formats (MPEG, PCAP, ...)
- ▶ Live setup modification via Ethernet connection and comfortable configuration software



Set-up, Monitoring, Time Synchronization, Data Transfer via one single wired Ethernet link.

### SENSORS

- PCM
- ARINC 429
- STANAG 3910
- MIL-STD-1553
- CAN
- ETHERNET
- VIDEO
- VOLTAGE
- (E.G. TEMPERATURE, PRESSURE, MICROPHONE)



- TELEMETRY
- DIGITAL
- PCM
- ETHERNET
- DISCRETE
- VIDEO
- HYBRID
- ANALOG
- CAN BUS
- MIL BUS

## ACQUISITION

### PROCESSING RECORDING



SSD / LAN



IRIG 106 CH10  
UDP BROADCAST



CONTROL AND MONITORING

### GLOBAL SALES

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