

DATA SYSTEMS



ACQUIRE & PROCESS RECORD TELEMETRY & STREAM REPLAY

MDR

Highly Versatile Airborne Data Acquisition, Recording & Dissemination System



Heim



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 IIRIG 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 IIRIG 106 Chapter 10

AVAILABLE IN 4 MAINFRAME VARIANTS

MDR-2 2 module slots/CF card

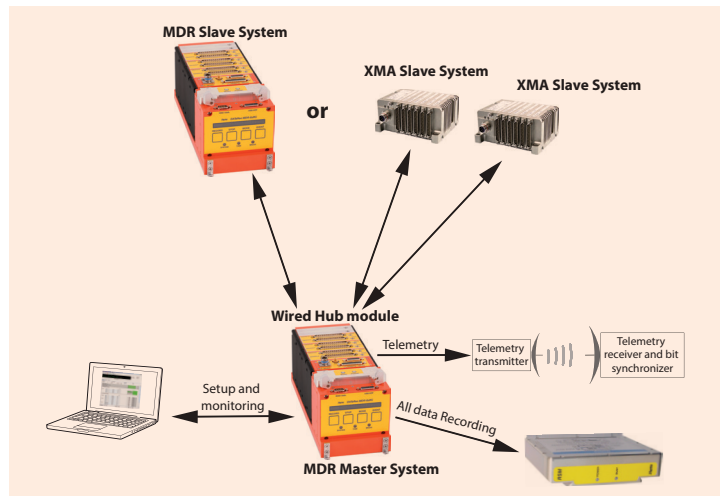
MDR-4 CF 4 module slots/CF-card

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

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