ACQUIRE & PROCESS  RECORD  TELEMETER & STREAM  REPLAY

# MDR-GT

## Hybrid Concept for Data Recording & Processing
The Ultra-Fast Onboard FTI Solution

✈ **FLIGHT TEST INSTRUMENTATION**

*Hetm*

The **highly flexible** platform concept of the MDR-GT family is technically based on a common mainframe with many high-end built-in interfaces and functions. Specific functions and requirements can be addressed by adding dedicated interface canisters (featuring signal interfaces and/or storage media). With a selection range from **several mainframe variants** and **canister types** together with a **high number of signal modules,** the MDR-GT offers **configuration options** for almost all applications and requirements. **Backward compatibility to all MDR modules** is an additional benefit.

**Ultra-high data rates and storage capacities** plus **advanced data processing** allow for **extensive data** recording and management.
The MDR-GT leverages these advanced capabilities to meet the most demanding requirements in future applications.

**Next Gen.** → Next Gen Flight Test Instrumentation

Big FTI Data

Certification Tests

### ULTRA-HIGH DATA RATE AND STORAGE CAPACITY
Up to 16 Gbit/s and up to 80 TB

### EXTENDED CONFIGURATION FLEXIBILITY
User-Configurable Canister Concept

### INTEGRATED TELEMETRY OUTPUTS
IRIG 106-17 Chapter 7 Support

### ADVANCED DATA PROCESSING AND MANAGEMENT CAPABILITIES
On-Board Data Analysis

### FULL SPECTRUM OF INTERFACES
10GigE, Video, Fibre Channel, ARINC 429, PCM, MIL-STD-1553, H.265 Video, Analog...

### READY FOR HIGH-END USE CASES:
WIRELESS, AIRBORNE NAS, PREPARED FOR ARINC818

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## ❯ COMMON MAINFRAME

### MDR-GT Performance

MDR-GT/MDR-GTn recording data rate..........................up to 16 Gbit/s
Internal data rate...............................................................3x32 Gbit/s
Possible storage capacity (via 2 canisters).........................up to 80TB

### 10 Gigabit/s Ethernet

**2 ports, 10GBASE-T/1000BASE-T/100BASE-TX, Ethernet data recording, Remote control, UDP broadcast, PTP (Precision Time Protocol; time code sync. IEEE 1588-2002 / IEEE 1588-2008), FTP server download function**

### Other Setup/Control/Remote Interfaces

**Setup, User specific data**...............................1 SD-Card slot (optional)
**Serial Remote**............................................... 1 channel RS232 or RS422 serial remote
**Contact Remote (CR)** ........................................ 8 discrete input/output

### Flexibility for Classified Environments

**Definable booting sectors. Only volatile memory**

### Device Access Protection

**Secure Authentication + TPM Verification**

### Voice

**Channels** ................................... 2 input single ended headset channels, 2 single ended head set monitor outputs

### Time Coding

**Input Standard codes** ...IRIG A, B, G, DC-AM / 1 pps / 10 pps, GPS time code (NMEA), PTP
**Output Standard codes**.................. IRIG A, B, G, DC-AM, 1 pps / 10 pps; GPS NMEA on RS232/RS422, PTP

### Optional: Built-in GPS Receiver

### Max. Time System Accuracy ±3 ppb

### Telemetry Output

**Physical**................................................2 independent output channels
**Output content**..IRIG 106 Chapter 7 constant bit rate PCM data stream
**Output signal** .......................................................PCM Data and Clock

### Autonomous Monitoring System

**Intelligent Self Diagnostic**

## ❯ GT-CANISTER ARCHITECTURE

**Storage canister** .........Top/Front access, up to 40TB per canister (TSB/FSB), up to 2 storage canisters per MDR-GT

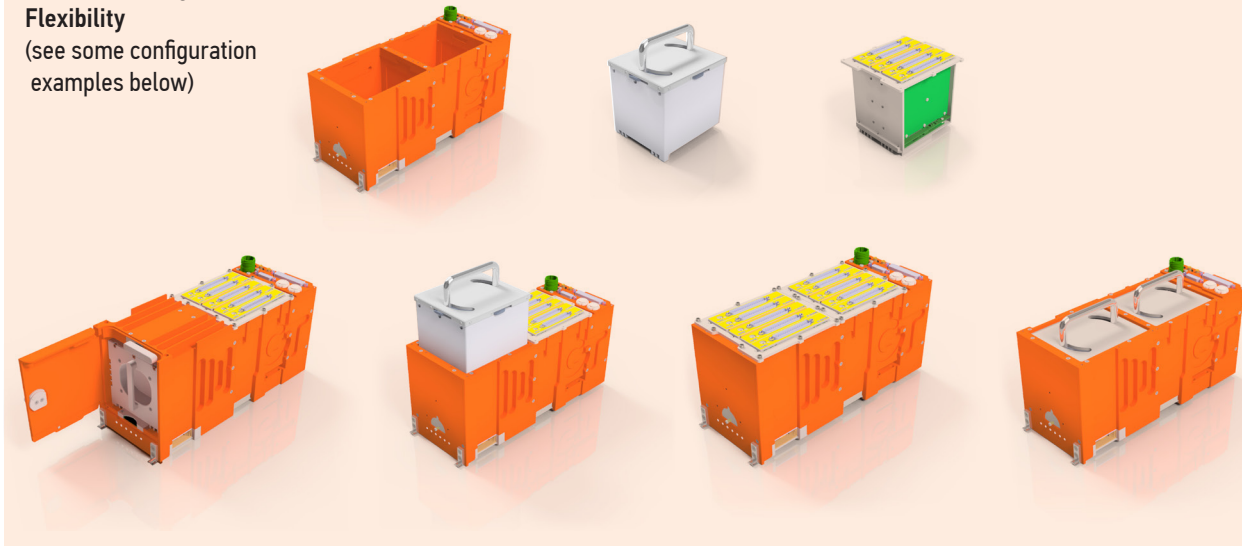.........................................Top/Front access, up to 40TB per canister, with integrated Download interface (TSA/FSA), up to 2 storage canisters per MDR-GT

**Data acquisition canister**.................Top access MDR-Module canister (TM) with 5 MDR module slots

### Extended Configuration Flexibility

(see some configuration examples below)

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