

MDR-GT

Hybrid Concept for Data Recording & Processing

 FLIGHT TEST INSTRUMENTATION



Hetm

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

 **SAFRAN**

**Instrumentation
Devices** 

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MDR-GT

The Ultra-Fast Onboard FTI Solution

The highly flexible platform concept of the MDR-GT family is technically based on a common mainframe with various high-end built-in interfaces and functions.

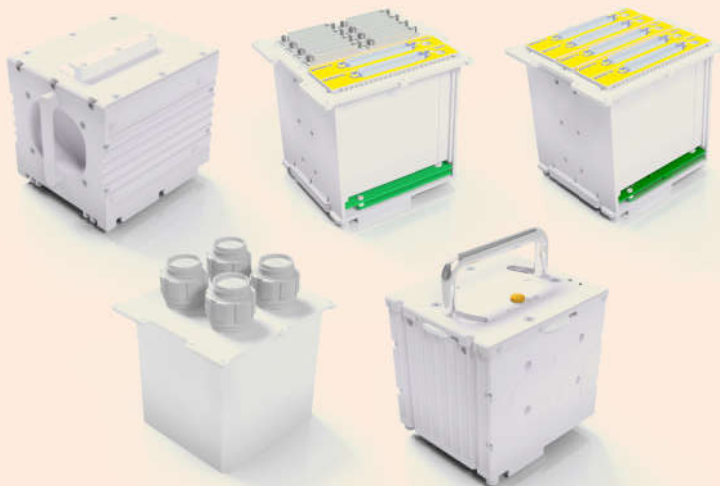
Specific functions and requirements can be addressed by adding dedicated interface canisters (featuring signal interfaces and/or storage media). With a choice from **several mainframe variants** and **canister types** together with a **high number of signal modules** (e.g. MDR or XMA modules), the MDR-GT 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.

A **ruggedized variant** with corresponding MIL-DTL-38999 connectors and chassis can be configured for extremely demanding environments.

> FLEXIBLE GT ARCHITECTURE

> GT CANISTERS



Next Gen.



> TOP LOADER



> FRONT LOADER



> 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
 All-data capture (incl. corrupted data packets)

1 Gigabit/s Ethernet

4 ports 1000BASE-T/100 BASE-TX
 All-data capture (incl. corrupted data packets)

Other Setup/Control/Remote Interfaces

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

Flexibility for Classified Environments

Definable booting sectors. Only volatile memory

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, NTP

Output Standard codes IRIG A, B, G: DC-AM, 1 pps / 10 pps; GPS NMEA on RS232/RS422, PTP, NTP

Optional: Built-in GPS receiver

Max. Time System accuracy 33 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

Device Access Protection

Secure Authentication + TPM Verification

Autonomous Monitoring System

Intelligent Self Diagnostic

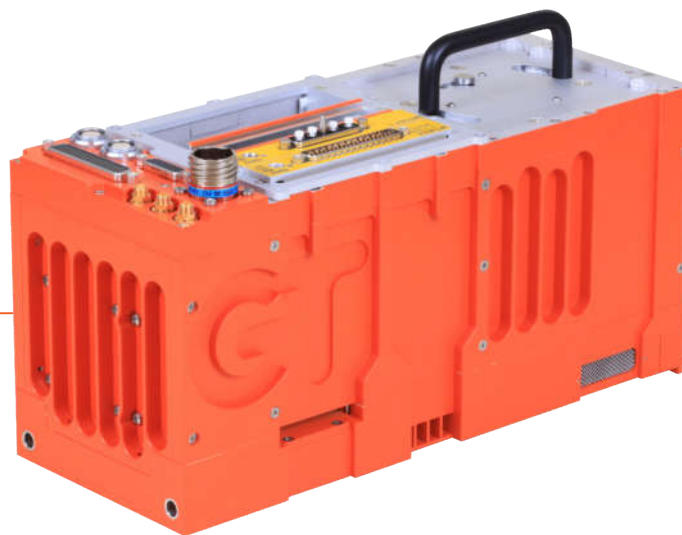
Real-Time Clock (RTC)

User-exchangeable battery

> DOWNLOAD STATION

Data Download and Processing 40 GigE Interface
 Ultra High-Speed Internal Interface from Media to Controller
 Download Station for one Storage Canister

CONFIGURATION EXAMPLE FOR GT TOP LOADER



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