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.
**FLIGHT TEST INSTRUMENTATION**

**MDR-GT**

### 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

### 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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**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**

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**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