

Complete and comprehensive data acquisition, processing, and storage solutions with the Model 3255M Integrated Data Acquisition and Recorder System.



GE Aviation's Integrated Data Acquisition and Data Recorder System (IDARS) is versatile and easily adaptable to a wide variety of customer requirements – requirements that go beyond flight data and voice recording and into information management.

IDARS is versatile and supports custom tailoring of hardware and software configurations to meet specific customer vehicle acquisition and processing requirements.

Flexible, modular, vehicle monitoring and data acquisition

The IDARS acquires, processes and stores data for a wide range of analog, digital and discrete sources. GE Aviation's configurable software controls the entire system and is easily modified for any specific application.

Crash survivable, position location and water recovery

Impact resistant greater than 3,400 Gs.
Water recoverable with optional acoustic beacon to 20,000 feet.

Mission analysis and crew training

IDARS flight and voice data provides an integrated analysis database for optional animated flight replay capability and Flight Operational Quality Assurance, FOQA.

Specifications - 3255M IDARS

Mechanical	
	1/2-ATR short chassis per ARINC 404 (12.62" L x 4.88" W x 7.62" H)
Dimensions	(320.5mm L x 123.95 mm W x 193.5 mm H)
Weight	< 16.5 pounds (7.5 kg), maximum without acoustic beacon
Mounting Tray	1/2-ATR Short per ARINC 404; front tie-downs, rear DPX key pins
Connectors	2 or 4-Bay DPX filter pin connector per ARINC 404; 106 pins per bay
Data download and operational software updates via front panel connector	
Audio Interface	
Optional: acoustic beacon, 1 lb. (.45 kg)	

Health and Usage Management Systems

The IDARS combines GE's proven technology and experience with flight data recorders, engine health usage monitoring systems, real-time airborne and ground software. The IDARS in a full-up HUMS configuration, with vibration monitoring and Rotor Track and Balance (RTB) establishes a new benchmark in analytical aircraft management systems.

GE's IDARS is the complete solution to your aircraft monitoring needs. GE's voice recording and flight data acquisition systems have proven their adaptability, versatility, and state-of-the-art technology on a wide range of helicopters and fixed wing aircraft throughout the world.

Performance

Authorized to TSO-C123c and TSO-C124c

Compliant to EUROCAE ED-112A requirements

Environment per RTCA DO-160 Rev G

Temperature: -40 °C to +71 °C

Electrical

Modular design characteristics, tailored to the specific application requirements

Analog signal interfaces:

AC/DC differential inputs (high voltage)

- DC differential inputs (low voltage)
- Differential phase reference inputs
- Frequency (i.e., rotor tachometer, torque, etc.) inputs
- Configurable discrete inputs
- Audio inputs: up to 3 narrow-band (150 to 3,500 Hz), 1 wide-band (150 -6,000 Hz)
- Open/ground discrete outputs

Digital bus interfaces:

- ARINC 429 (high and low speed)
- RS-422/485 (300 Baud to 1.5 Mbaud)
- MIL-STD-1553B (dual redundant)
- 10/100/1000 Mbps Ethernet

Input power:

- +28VDC, 40 watts (Maximum)
- Performance: DO-160C, Sect. 16, Cat. A and MIL-STD-704A, Table II, Cat. B

Installation and mounting kits, ground playback and analysis software available.