



# Aircraft Memory System



GE Aviation has over 30 years experience in the design, integration and manufacture of data transfer and storage systems that are fielded on a multitude of military platforms across the globe including the F-16, F-22, and F-35. GE is committed to providing the most reliable and innovative equipment on the market.

GE's Aircraft Memory System (AMS) is a flight proven, high-assurance Line Replaceable Unit (LRU) currently deployed on one of the world's most advanced tactical fighters. AMS is comprised of two subsystems: a cockpit mounted Enhanced Data Receptacle (EDTR) and removable Enhanced Data Transfer Cartridge (EDTC). The primary function of the AMS is to provide mass storage and file server functionality for aircraft avionics subsystems. It is also the primary repository for avionics operational flight programs (OFP), mission and theater data, prognostics and health data, and aircraft parametric data.

AMS offers the industry's most reliable storage through Single-Level Cell Error Detection and Correction (EDAC) memory, which is expandable up to 240 (GBytes). It provides file server services between internal mass storage and off-board mission planning ground stations via a gigabit Ethernet interface. This interface is compatible with the Gigabit Ethernet Module (GEM), which is provided as part of the ground support adapter kit. In addition, the AMS provides the capability to host user-developed applications and process data from its mass storage.

AMS is designed to operate in harsh environments and is qualified to MIL-STD-810, MIL-STD-461, MIL-STD-740, and designed to perform over an extended temperature range. It implements internal Built-In-Test (BIT) to autonomously detect and report a minimum of 98% of all functional failures providing complete autonomous end-to-end system checks, fault detection (FD), fault isolation (FI), and performance monitoring.

# Specifications

<b>General Features</b>	<b>Built-in-Test</b>
App hosting and data processing	Power on self test (POST)
VxWorks O/S	Initiated (IBIT)
Field upgradable	Continuous (CBIT)

  

<b>Interfaces</b>	<b>Environmental</b>
Optical Fibre Channel (2 Gbps)	-54°C to 85°C non-operating
IEEE-1394 FireWire (400 Mbps)	-40°C to 65°C operating

  

<b>Throughput</b>	<b>Power</b>
40 MBps read / 35 MBps write (aircraft)	20 VDC <20 Watts
15 MBps read / 7 MBps write (ground)	

  

	<b>Weight</b>
	<8 lbs.

  

<b>Memory</b>	<b>Size</b>
96 GBytes EDAC	Enhanced Data Transfer Receptacle
Expandable to 240 GBytes	5.75"W x 4.49"H x 8.02"D

  

<b>Reliability</b>	
MTBF >7,700 hours (predicted)	Enhanced Data Transfer Cartridge
MTTR <12 minutes	4.72"W x 1.62"H x 7.5"D

GE Aviation  
Andrew Massiah  
andrew.massiah@ge.com  
3925 Gateway Ctr Blvd  
Ste 100  
Pinellas Park, FL 33782  
www.geaviation.com

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