

FV-4000

Open Architecture Avionics Computer



Flexible power and advanced technology in a low-cost airborne processing and display generation system

The FV-4000 Open Architecture Avionics Computer is a compact, airborne, modular computer for avionics and mission processing and for display generation. The FV-4000 is the culmination of many years of experience in the design and production of both the operational software and the processor hardware for cockpit integration. The result is a modular, open architecture design featuring CompactPCI™/PMC technology — enabling the FV-4000 to utilize a wide variety of off-the-shelf modules. This, in turn, simplifies the upgrade process and allows the computer to support new processing and peripheral elements as they become available.

The FV-4000 features 500 MHz PowerPC G4 processors with up to 512 Mbytes of memory per processor for processing critical data in real time and at a high refresh rate. It has extensive video switching and graphics generation capability and includes an industry leading, 8 GB solidstate mass memory card. Its processing is supported by modules which can be added for high-resolution graphics in the case of multifunction displays or for interfacing to any avionics bus or signal used with either military or civil systems.

Designed and qualified to operate in a severe military environment, the FV-4000, with its processing power and modular flexibility, is the right choice for retrofits or new aircraft. Its compact size makes it easy to install in any aircraft.

FV-4000 Open Architecture Avionics Computer — Specifications

FEATURES

CompactPCI™/PMC Open Architecture

BENEFITS

World-wide standard that is rapidly being adopted by the military/aerospace industry. Facilitates program development via its support of a wide range of third-party hardware modules and software support tools

Modular Construction/Flexible Design

Supports the data processing, interface and primary control/display elements of any aircraft avionics system. Easily configured for future expansion. Modules for special functions such as embedded ACMI can be added.

High-Resolution Graphics Generation for MFD Drivers, RGB, DVI, LVDS

Supports either smart or dumb MFDs. High graphics resolution up to 1600 x 1200. Flexible and economical cockpit integration. Full 2D and 3D OpenGL support with real time video overlay.

Symbol/Graphics Overlay

Provides pilot with real time cues for navigation and weapons delivery.

Multiple Interface Support: MIL-STD-1553/1760, ARINC-429, Fibre Channel, I²C, RS-422/485, Ethernet, Discrete and Analog

Multiple interface capability facilitates easy integration into almost any aircraft avionics system.

Multiple PowerPC 500 MHz G4 with up to 512 Mbytes of Memory Each

Processing power and data storage capability for processing and display of data from multiple sensor sources. Information is provided to the pilot in real time with minimal latency.

Enclosed Equipment Case with Conductive Cooling for Electronic Modules. Ruggedized Construction.

Operates reliably in harsh environments of temperature, altitude, moisture, vibration, shock, EMI/EMC. MIL-SPEC and FAA qualified. No requirement for aircraft supplied forced air cooling. High reliability

Extensive Built-In Test (BIT) Capabilities

Continuous in-flight testing and fault log for O-Level and bench fault isolation.

VxWorks® Operating System

Provides certification capability for DO-178B, Levels A-D.

8 GB Mass Memory

Extensive storage for DTED elevation data, raster maps, MPEG video/data and map databases.

SPECIFICATIONS

Weight

3 MCU: 8.0 kg (17.6 lb), 5 MCU: 9.3 kg (20.5 lb) min. – 12.6 kg (27.7 lb) max. depending on configuration.

Operating Voltage

28 VDC per MIL-STD-704 and DO-160D or 115 VAC 400 Hz 1 or 3 phase per MIL-STD-704.

Power Consumption

250 Watts.

Size

3 MCU: W 3.8" (96.5 mm) x H 7.8" (198.1 mm) x D 15" (381 mm) Chassis.
5 MCU: W 6.2" (157.5 mm) x H 7.8" (198.1 mm) x D 15" (381 mm) Chassis.

Connector

AARINC 600.

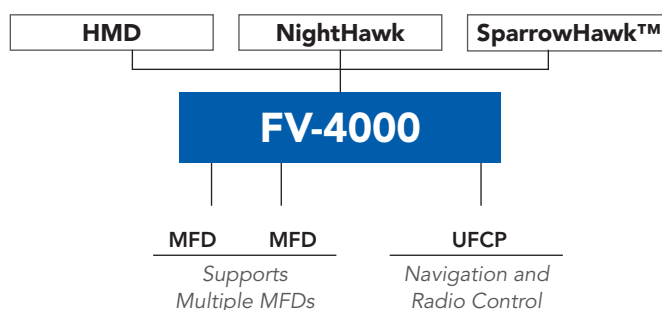
Environmental

MIL-STD-810, MIL-STD-461/462, DO-160D.

Aircraft Avionics Subsystems

- Inertial Navigation System
- AHRS
- Radar
- Laser Range Finder
- Weapons Interface
- Navigation Receiver
- Radio Communications
- Air Data Computer
- GPS

Stroke on Raster HUD and Symbol Generators



Interface Support

- MIL-STD-1553
- ARINC-429
- RS-422
- Fibre Channel
- Fire Wire
- Ethernet
- PCMCIA
- Discrete
- RGB or LVDS Video
- HUD/HMD Driver

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The information and data given are typical for the equipment described. However any individual item is subject to change without any notice.

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Products

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