



Helicopter 4000

Integrated Glass Cockpit Avionics

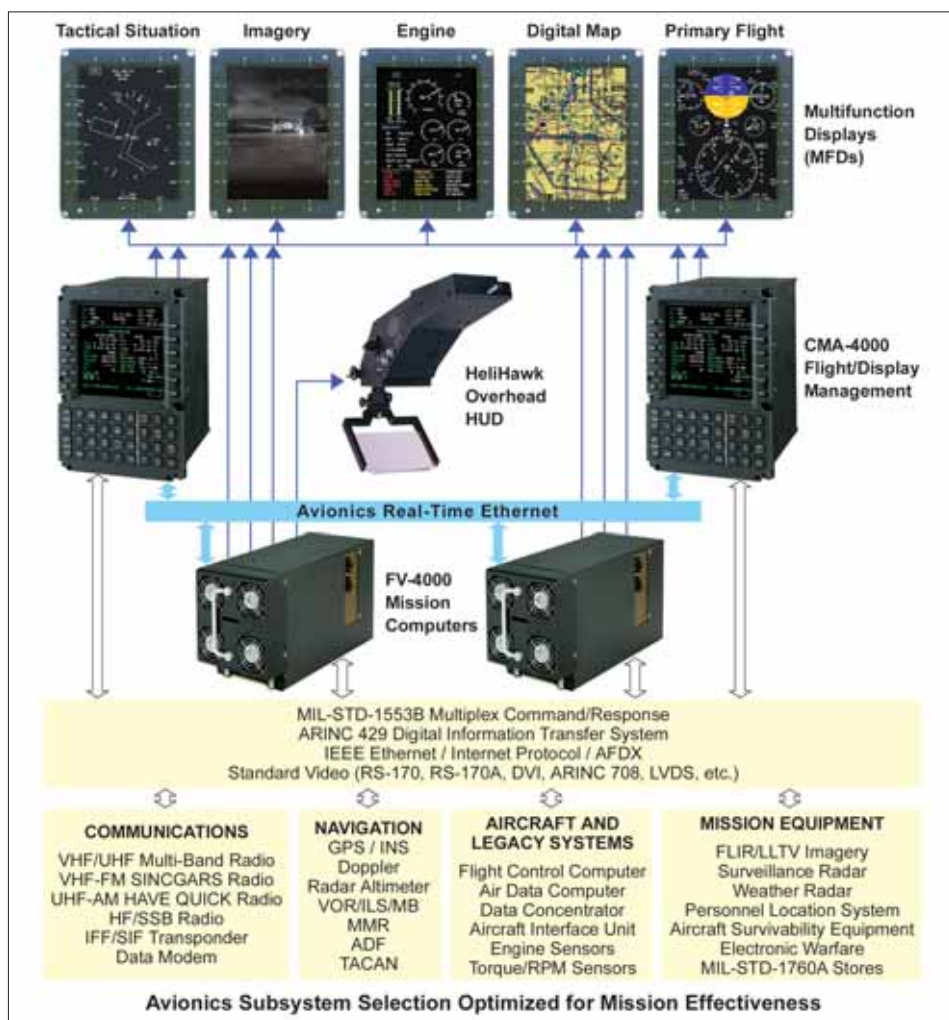
Scalable, open system architecture solution for military-class helicopters

- Military transport/utility
- Combat search and rescue
- Armed reconnaissance
- Maritime surveillance/ASW
- Command and control
- Special operations

Computer resources and Pilot-Vehicle Interface optimized for mission effectiveness.

Avionics subsystem selection optimized for mission effectiveness and customer preferences.

Open system architecture provides scalability for multi-role applications, network-centric architectures and future growth.



HELICOPTER 4000 INTEGRATED GLASS COCKPIT AVIONICS – CHARACTERISTICS

FV-4000 MISSION COMPUTER

ARINC 600 3-MCU or 5-MCU form factor
 Open system architecture - up to 4 cPCI 6U cards with 8 PMC sites
 Multi-processor mission computer for navigation and mission OFPs
 Built-in HeliHawk HUD display generation
 Digital map generation with up to 16 Gbytes of mass memory
 MFD imagery/symbology generation - each FV-4000 can drive up to 8 MFDs
 Video formatting and switch for external imagery such as FLIR, weather radar
 Standard MIL-STD-1553B, ARINC 429, Ethernet/IP, discrete, analog and video interfaces



CMA-4000 FLIGHT AND DISPLAY MANAGEMENT SYSTEM

Standard 6.75" console DZUS mounted form factor
 Open system architecture - up to 3 cPCI 3U cards with 6 PMC sites
 Multi-processor mission computer with TFT color LCD display and CDU keyboard
 Flight management system (FMS)
 Radio/communication management
 Jeppesen navigation database stored in Flash EPROM
 MFD imagery/symbology generation - each CMA-4000 can drive up to 2 MFDs
 Video formatting and switch for external imagery such as FLIR, weather radar
 Standard MIL-STD-1553B, ARINC 429, Ethernet/IP, video interfaces



HELIHAWK HEAD-UP DISPLAY (HUD)

25° Field of View HUD
 Stroke only or stroke/raster
 Stowable combiner with adjustable height
 Day or night applications
 NVG interoperable
 Flight, navigation and weapon delivery symbology
 Electronic boresighting
 High-brightness - 1.3-to-1 contrast ratio at 10,000 fL



MULTIFUNCTION DISPLAYS

Full color, high brightness
 Available in 4"x5", 5"x7" or 6"x8" display sizes, landscape or portrait orientation
 Wide viewing angle
 VESA or S-video/composite/RS-170 standard video interface



OPEN SYSTEM ARCHITECTURE PROVIDES SCALABILITY FOR EVERY HELICOPTER APPLICATION FV-4000 AND CMA-4000 SHARE COMMON MULTI-PROCESSOR OPEN ARCHITECTURE

Multi-processor architecture with 3U/6U cPCI cards with configurable PMC modules
 Mission computer processing capabilities - 500 MHz PowerPC G4 processor
 POSIX or VxWorks operating system (growth to ARINC 653 partitioned operating system)
 OpenGL application-graphics interface
 High-speed Ethernet interfaces support distributed architecture and IP protocols for network-centric systems

DESIGN AND CONSTRUCTION FOR DEMANDING HELICOPTER OPERATIONS

Environment - MIL-STD-810E, RTCA/DO-160D
 EMC/EMI - MIL-STD-461D, RTCA/DO-160D
 All displays are NVG compatible for tactical operations
 Operating power - MIL-STD-704, 28 Volt DC
 Redundant system architecture at black-box level, MIL-STD-1553B and ARINC 429 data buses, video distribution



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