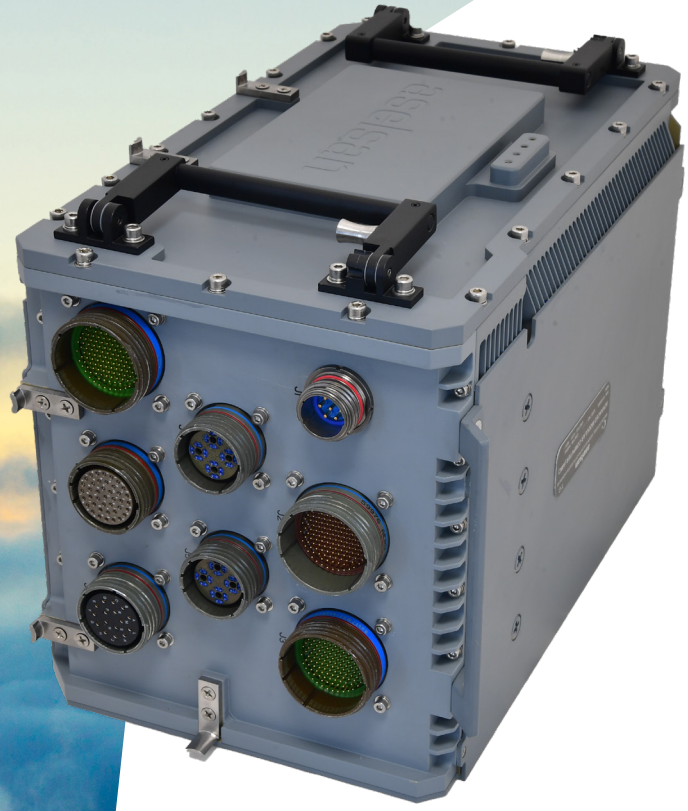
ACORE | MGB

ADVANCED MODULAR COMPUTER

#Avionics



FIGHTER JET PLATFORM QUALIFIED
REDUNDANT OPERATION
MISSION AND DISPLAY MANAGEMENT

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ADVANCED MODULAR COMPUTER

ACORE MGB, Advanced Modular Computer, is the processing center of the Integrated Fighter Avionics System. Two ACORE MGB units can be equipped to form a dual redundant tactical mission management structure. ACORE MGB is based on multiple, high performance quadcore PowerPC family processors. AMD Radeon based graphical processing units can support up to seven digital display generation.

ACORE MGB has modular system architecture. ACORE MGB's expandable hardware and software design allows adapting its performance and interfaces according to the platform or application needs.

General Specifications

- Avionic System Management
- Aircraft Interface Management
- Operator Interface Management, Symbology Generation and Multifunction Display Management, Head Up Display Management
- Communications and Identification Management
- Navigation Management
- Tactical Surveillance Management
- Stores Management, Weapons Release, Launch and Jettison Management, Weapons System Diagnostics
- Emergency/Auxiliary Operations and Zeroization Management
- Mission Planning, Mission and Test Data Upload /Download
- Moving Map including Synthetic Vision (3D Terrain), Digital Terrain System

Interfaces

- MIL-STD-1553B/ MIL-STD-1760D
- Ethernet (10/100/1000)
- ARINC-429
- Serial Ports (RS-232/RS-485/RS-422)
- Display Port Digital Video Out
- Analog Video In/Out
- Discrete In/Out
- Analog In/Out
- Audio Out
- W-194 (W-MUX)
- Special Serial Ports
- HUD X/Y Symbology Out

Physical Specifications

- Dimensions : 342 mm (W) x 213 mm (H) x 236 mm (L)
- Weight : < 20 kg

Technical Specifications

- Power Input: 3 (three) or 1 (one) Phase 115VAC@400Hz
- Power Consumption: 375VA (Nominal) / 475VA (Maximum)
- Power Hold-Up for Short Time Power Interrupts
- Rugged Forced Air Cooled Chassis
  - 6 (six) 6U VPX Slots
  - MIL-DTL-38999 Connectors
  - Single Slot 2.5" SATA SSD
- VITA 46.4 Compliant PCIe Bus Architecture
- VITA 62.0 Compliant Power Supply
- Software
  - Greenhill Integrity 178B RTOS
  - RTCA DO-178B
  - ARINC 653 RTOS
  - Qualified bsp/driver
- Extensive Built In Test Infrastructure (Initiated BIT, Power-Up BIT, Continuous BIT)

Environmental Conditions

- Operating Temperature and Altitude: -55°C / +95°C, 55.000 ft
- Storage Temperature and Altitude: -55°C / +95°C, 70.000 ft

Qualifications

- MIL-STD-810H
- MIL-STD-461E
- MIL-STD-704A/F
- DO-160E
- Compliant to Fighter Jet Environmental Qualification Conditions

Specifications are subject to change without any notice. | All tolerances are within ±10%.

AGS - ACORE MGB - 12.2024

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