



MPMC-9620

Multi-Platform Mission Computer 2-slot 6U VME Intel® System



Processing

- ◆ One or two, Intel Core2 Duo SBCs
- ◆ One or two, Freescale MPC7447A/7448 PowerPC SBCs

Optional Interfaces

- MIL-STD-1553 – two redundant channel
- 32 Channels of ARINC 429
- Dual CANbus
- Video up to eight outputs DVI or LVDS Plus VGA or RS-170

VME 64x Backplane

Mechanical

- ◆ Volume Optimized
- ◆ L x W x H – 12.5" x 5.8" x 8.25"

Power Supply

- ◆ 28 VDC input at up to 130 W

The MPMC-9620 has the standard interfaces required of modern mission computers, backed by unprecedented processing power and the flexibility to exactly meet the needs of deployable systems in a smaller volume.

The MPMC-9620 is designed to meet the harsh environments of many military computing applications. Circuit cards installed in the system enclosure are isolated from external environmental conditions such as humidity, dust and sand.

The main processing power of the MPMC-9620 is supplied by one or two single board computers (SBC); the MPMC-9620 can be driven by either the DMV-1901 (Intel® Core™2 Duo at 1.5 GHz) SBC or the DMV-183 (Freescale™ MPC7447A/7448 PowerPC™ at 1.2 GHz) SBC.

The MPMC-9620 has a full selection of standard and optional I/O. The standard I/O includes Ethernet, RS-232 serial, RS-422 serial, two redundant channels of MIL-STD-1553 and DIO. 32 channels of ARINC 429 can be provided via an AIM429 PMC with each channel individually selectable as Rx or Tx.

Up to eight independent video outputs, DVI, LVDS, VGA & RS170 formats, via built-in video GPUs and up to two XMC-710 video XMCs.

Learn More

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System Configuration

One of the strengths of the MPMC-9620 is its flexibility. The MPMC-9620 is built around an open architecture that provides unmatched versatility allowing the system to be configured with various feature combinations to meet specific program requirements. Essentially, the MPMC-9620 can accommodate two SBCs and support numerous PMC cards (the amount of supported PMC cards depends on the number of PMC card slots on the SBCs). The block diagram to the right illustrates a sample configuration of a standard mission computing system.

Custom Configuration

The MPMC-9620 can be ordered with any of the standard features listed to the right, or the MPMC-9620 can also be ordered as a modified commercial off the shelf (MCOTS). As an MCOTS product, the MPMC-9620 can be configured with a modified front panel connector set, modified backplane wiring or a modified card set so it will fit your exact needs.

Environmental Qualifications

The MPMC-9620 is designed to meet the harsh environments of many military and aerospace computing applications. To ensure the highest level of Performance, the MPMC-9620 has been designed to meet or surpass the DO-160F Environmental Conditions for Airborne Equipment. It has been designed to pass numerous environmental tests including Temperature, Altitude, Shock, Vibration, Fluid Susceptibility, Voltage Spikes, Electrostatic Discharge and more. Circuit cards installed in the sealed compact chassis are completely isolated from external environmental conditions such as humidity, dust and sand.

Curtiss-Wright Controls Embedded Computing

Whether the intent is to maximize COTS content or leverage an existing custom solution, CWCEC is your embedded systems partner. Take advantage of our decades of experience in assembling generic platforms, upon which you can build your applications. Or leverage specific system solutions that focus on addressing full compliance to platform/program requirements. Either way, we have the products, open standard technologies and system platforms to keep your program ahead of schedule and on budget. Your success is the standard upon which we base our performance.

Figure 1: Configuration Example

