



MPMC-9655

Multi-Platform Mission Computer 5-slot 6U VME System

Non-ITAR Solution

- ◆ Part of a family not restricted by ITAR

Processing

- ◆ Up to two Power Architecture™ 7448 SBCs

Input/Output

- ◆ 10x ADC Inputs (0 to 10V DC)
- ◆ Voice and tone generator
- ◆ 48x DIO (0-80V DC) Inputs/Outputs
- ◆ 8x RS-232/RS422/RS-485 Interfaces
- ◆ 2x 10/100BaseT Ethernet
- ◆ Dual MIL-STD-1553
- ◆ Video
 - 2x internal video sources
 - 5x external video inputs
 - 5x video outputs

Mechanical

- ◆ 10kg (fully populated)
- ◆ 3/4 ATR Short
- ◆ MIL-E-5400T Class 2X
- ◆ 28VDC input per MIL-STD-704A
 - includes hold-up

The MPMC-9655 is the ideal mission computer with its extensive complement of I/O interfaces, backed by Power Architecture™ or Intel® processing power and the flexibility to meet the needs of a wide range of deployable systems.



The MPMC-9655 is designed to meet the harsh environments of many military and commercial computing applications. Circuit cards installed in the system enclosure are isolated from external environmental conditions such as humidity, dust and sand.

Cooling is accomplished by thermal transfer between the card edges of the conduction-cooled 6U VME cards and the side walls of the system enclosure. EMI filters and gaskets are employed for system security and increased reliability.

Processors

The main processing power of the MPMC-9655 is supplied by two Curtiss-Wright Controls Defense Solutions DMV-183 (Power Architecture 1.2GHz 7448) single board computers (SBCs). Up to 64GB of flash is provided by the DPMC-550 PMC module. The SVME/DMV-183 is a 6U VME SBC supporting single or dual up to 1.2GHz Freescale MPC7447A/7448 Power Architecture processors with AltiVec™ technology and up to 2 GB of state-of-the-art DDR SDRAM. The 183 provides two 64-bit PMC sites and an innovative complement of I/O capability such as Gigabit Ethernet, up to six serial ports, up to two 1553 channels, SCSI, Serial ATA, and two USB 2.0 ports.

The MPMC-9655 has a full selection of standard and optional I/O. The standard I/O includes Ethernet, RS-232 serial, RS-422 serial, analog and DIO. Two dual redundant channels of MIL-STD-1553 can be supplied via a 1553 PMC module.

Learn More

Sales Info: cwcdefense.com/sales

Sales Email: defensesales@curtisswright.com

ABOVE & BEYOND

**CURTISS
WRIGHT** Controls
Defense Solutions

cwcdefense.com

Photo courtesy of
General Dynamics
Land Systems Inc.

Fact Sheet

MPMC-9655

Video I/O

Up to two video outputs can be generated by a PMC-706 video PMC hosted on a DMV-183. In addition the system will accept five additional XGA and STANAG 3305B (differential) video inputs which are crossbar-switched with the internally generated video to produce 5 independent video outputs. The video crossbar is controlled by one of the DMV-183 SBCs.

The system also includes a Voice and Tone generator with a 600 ohm transformer isolated output. The tone generation and pre-recorded speech playback is offloaded from the SBC to a dedicated processor. The pre-recorded speech is prepared off-line using a supplied utility that accepts many industry-standard file formats.

Standard Features

The MPMC-9655 is available in several configurations utilizing either Intel or Power Architecture based processor solutions for the system controllers, as well as VME and VPX backplane fabrics. These system solutions integrate many features that are found to be common for mission critical or video display systems such as MIL-STD-1553, ARINC 429, Ethernet switching & video capabilities.

The MPMC-9655 is a 3/4 size ATR (short) format with dimensions of L x W x H – 303mm x 190.5mm x 194mm.

Custom Variations

The MPMC-9655 can be ordered as a modified commercial off the shelf (MCOTS) product with a modified front panel connector set, modified backplane wiring or a modified card set to meet particular needs.

Contact your local Curtiss-Wright representative for more information on how these system configurations can meet your program requirements.

Environmental Qualifications

The MPMC-9655 is designed to meet the harsh environments of many military and aerospace computing applications. To ensure the highest level of performance, the MPMC-9655 has been designed to meet or surpass the MIL-E-5400T 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.

Figure 1: System Overview

