

Form Factor

3U CompactPCI (cPCI) backplane

Mechanical

- Forced air cooling
- Volume optimized
- 10.72" x 5.11" x 7.62"
- 17 lbs (fully populated)

Standard Configuration

- (4) DCP-124 SBC
 - Freescale[™] MPC7448
- (2) DPMC-706 Video
- (1) DPMC-601 1553
- (1) ARINC 429 card
- (1) DPMC-550 memory

Power Supply

- 28 VDC input
- MIL-STD-704 compliant

Table 1: Max Power

System Component	Power	Qty	Total
DCP-124	27 W	4	108 W
DPMC-706	10 W	2	20 W
DPMC-601	7 W	1	7 W
ARINC PMC	10 W	1	10 W
DPMC-550	5 W	1	5 W
Fan Assembly	20 W	1	20 W
Power Supply	25 W	1	25 W
Total Power Required			195 W

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ABOVE & BEYOND

MPMC-9350-0005

Multi-Platform Mission Computer 5-slot 3U cPCI System

The Multi-Platform Mission Computer 9350-0005 solution accommodates the highest power 3U cards in the embedded computing market within a 5-slot forced air enclosure. The MPMC-9350-0005 is backed by unprecedented processing power and the flexibility to exactly meet the needs of deployable systems. It's 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.

Optimal system cooling is ensured via thermal transfer between card edges of its conduction cooled 3U cPCI cards and the side walls of the system enclosure. EMI filters and gaskets are employed for system security and increased reliability (see Table 2).





Standard Configuration

The MPMC-9350-0005 is equipped with an integrated 28 VDC power supply unit, four DCP-124 SBCs, two DPMC-706 video cards, one DPMC-601 1553 card, one AIM ARINC card, and one DPMC-550 memory card.

3U cPCI Backplane DCP-124 DCP-201 DCP-124 DCP-124 DCP-124 Carrier Power Supply DPMC-DPMC-DPMC-DPMC-ARING 601 **PMC** 706 550 706

Figure 1: MPMC-9350-0005 Block Diagram

Environmental Qualification

The MPMC-9350-0005 is designed to meet the harsh environments of many military and aerospace computing applications. Table 2 illustrates the environmental qualification standards the MPMC-9350-0005 has been designed to meet or exceed.

Table 2: Environmental Specifications

Environmental Condition	Testing Compliance
Temperature & Altitude/Var	DO-160F, B1
Humidity	DO-160F, B
Operational Shocks & Crash Safety	DO-160F, B
Vibration	DO-160F, S
Fluid Susceptibility	DO-160F, F
Fungus Susceptibility	DO-160F, F
Magnetic Effect	DO-160F, A
Power Input	DO-160F, Z
Voltage Spike	DO-160F, A
Audio Freq Susceptibility	DO-160F, Z
Emissions	DO-160F, M
RF Susceptibility	DO-160F, Y
Lightening Strike	DO-160F, A3 E3
ESD	DO-160F, A

Table 3: Verified System Interfaces

Tested Interface	Qty
Gigabit Ethernet	8
MIL-STD-1553	2
RS-422	8
RS-232	4

Tested Interface	Qty
ARINC 429 Rx	24
ARINC 429 Tx	8
Video out	4
DIO	12

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Whether the intent is to maximize COTS content or leverage an existing custom solution, Curtiss-Wright is your Embedded Systems partner. Take advantage of 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.