

MPMC-9320-0004

Multi-Platform Mission Computer

2-slot 3U cPCI System

Form Factor

- ◆ 3U CompactPCI (cPCI) backplane

Mechanical

- ◆ Natural convection cooling
- ◆ Volume optimized
- ◆ 9.1" x 5.0" x 5.1"
- ◆ 14.5 lbs (fully populated)

Standard Configuration

- ◆ (1) DCP-1201P SBC
 - Intel® Core™2 Duo
- ◆ (1) DPMC-650 GbE Switch

Power Supply

- ◆ 28 VDC input
- ◆ MIL-STD-704 compliant

Table 1: Max Power

System Component	Power	Qty	Total
DCP-1201P	39 W	1	39 W
DPMC-650	15 W	1	15 W
Power Supply	10 W	1	10 W
Total Power Required			64 W

The MPMC-9320-0004 provides the highest functional density available in a small package. As a natural convection cooled system, the MPMC-9320-0004 is designed for reliable operation in harsh environments without the need for base plate or forced air cooling.



Packaged in an ultra compact 3U cPCI form factor and equipped with reliable Intel® Core™2 Duo processing, the MPMC-9320-0004 has all the elements required of modern mission computers in space constrained applications (see Table 3).

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).

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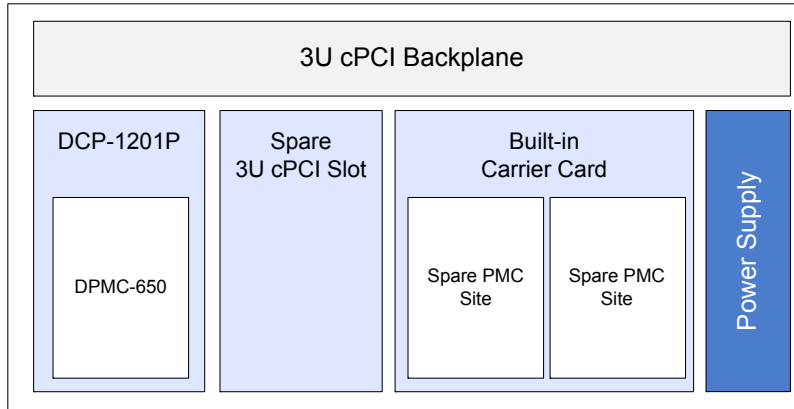
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Standard Configuration

The MPMC-9320-0004 is equipped with an integrated 28 VDC power supply unit, one DCP-1201P SBC, and one DPMC-650 Gigabit Ethernet Switch.

Figure 1: MPMC-9320-0004 Block Diagram



Operating System

The MPMC-9320-0004 has been verified to run Windows® XP Embedded.

Environmental Qualification

The MPMC-9320-0004 is designed to meet the harsh environments of many military and aerospace computing applications. Table 2 illustrates the environmental qualification standards the MPMC-9320-0004 has been designed to meet or exceed.

Table 2: Environmental Specifications

Environmental Condition	Testing Compliance
Temperature & Altitude	MIL-STD-810F, 501.4 (high temp) MIL-STD-810F, 502.4 (storage temp, operation) MIL-STD-810F, 500.4 (alt extremes)
Temperature Variation	MIL-STD-810F, 503.4 (temperature shock, 60°C/15 seconds (+20 to -40°C))
Operational Shocks & Crash Safety	MIL-STD-810F, 516.5 (shock)
Vibration	MIL-STD-810F, 514.5 (vibration)
Explosion Proofness	MIL-STD-810F 511.4

Table 3: Verified System Interfaces

Tested Interface	Qty
Gigabit Ethernet	8
100Base-T Ethernet	1
USB 2.0	1
RS-232	3

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