



MPMC-9351-0002

Multi-Platform Mission Computer

5-slot 3U VPX System

Form Factor

- ◆ 3U VPX backplane

Mechanical

- ◆ Forced air cooling
- ◆ Volume optimized
- ◆ 10.72" x 5.5" x 8.1"
- ◆ 20 lbs (fully populated)

Standard Configuration

- ◆ (1) VPX3-127 SBC
 - Freescale™ MPC8640
- ◆ (4) FPE320 FPGA
- ◆ (1) XCLK1 clock
- ◆ (1) ADC513

Power Supply

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

Table 1: Max Power

System Component	Power	Qty	Total
VPX3-127	40 W	1	40 W
FPE320	53 W	4	212 W
XCLK1	10 W	1	10 W
ADC513	10 W	1	10 W
Fan Assembly	20 W	1	20 W
Power Supply	44 W	1	44 W
Total Power Required			336 W



The MPMC-9351-0002 accommodates the highest power 3U cards in the embedded computing market, within a 5-slot forced air enclosure. The MPMC-9351-0002 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 for the MPMC-9351-0002 is ensured via thermal transfer between the edges of its conduction-cooled 3U VPX 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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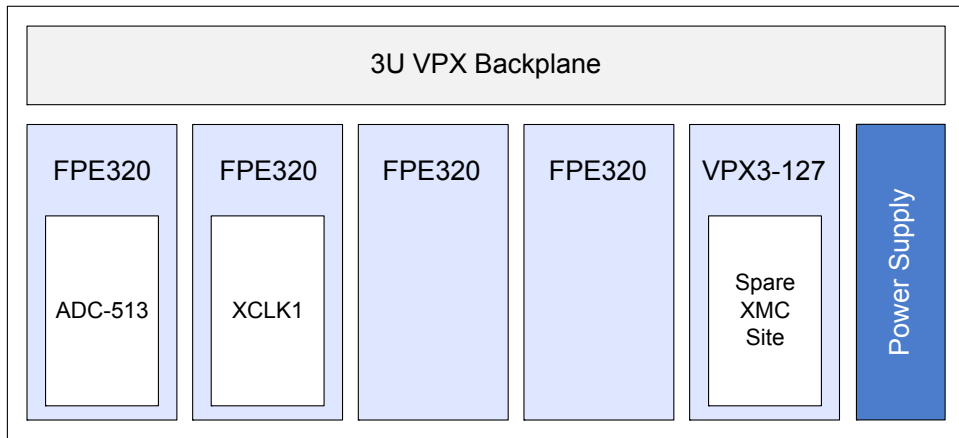
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Standard Configuration

The MPMC-9351-0002 is equipped with an integrated 28 VDC power supply unit, one VPX3-127 SBC, four FPE320 FPGAs, one ADC513, and one XCLK1 clock card.

Figure 1: MPMC-9351-0002 Block Diagram



Environmental Qualification

The MPMC-9351-0002 is designed to meet the harsh environments of many military and aerospace computing applications. Table 2 illustrates the environmental qualification standards the MPMC-9351-0002 has been designed to meet or exceed.

Table 2: Environmental Specifications

Environmental Condition	Testing Compliance
Operating Temperature	-40°C to +49°C
Storage Temperature	-48°C to +125°C
Altitude	-15,000 feet to +20,000 feet
Rain	94%
Fungus	Yes
Salt Fog	Yes
Sand and Dust	Yes
Explosive Atmosphere	Yes
Acceleration	Yes
Vibration	Yes
Shock	Yes

Table 3: Verified System Interfaces

Tested Interface	Qty
10 MHz Clock	1
RF In	2
Gigabit Ethernet	2
RS-232	2
DIO	2
JTAG	1

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