



MPMC-9350-0007

Multi-Platform Mission Computer

5-slot 3U cPCI System

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

- ◆ (1) DCP-1201 SBC
 - Intel® Core™2 Duo
- ◆ (1) TEWS TPMC363 Serial
- ◆ (1) TEWS TPMC375 Serial
- ◆ (1) ARINC card
- ◆ (2) NAI1 75C2 DIO & A/D

Power Supply

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

Table 1: Max Power

System Component	Power	Qty	Total
DCP-1201	39 W	1	39 W
TEWS TPMC363	7 W	1	7 W
TEWS TPMC375	7 W	1	7 W
ARINC PMC	7 W	1	7 W
NAI1 75C2	10 W	2	10 W
Fan Assembly	20 W	1	20 W
Power Supply	13 W	1	13 W
Total Power Required			103 W

The Multi-Platform Mission Computer 9350-0007 solution accommodates the highest power 3U cards in the embedded computing market within a 5-slot forced air enclosure. The MPMC-9350-0007 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).



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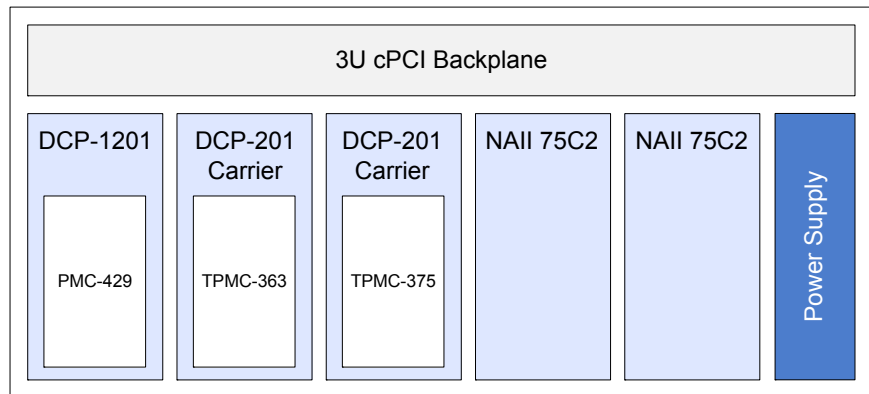
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ABOVE & BEYOND

Standard Configuration

The MPMC-9350-0007 is equipped with an integrated 28 VDC power supply unit, one DCP-1201 SBC, one TEWS TPMC363 serial card, one TEWS TPMC375 serial card, one ARINC PMC, and two NAI1 75C2 DIO & A/D modules.

Figure 1: MPMC-9350-0007 Block Diagram



Environmental Qualification

The MPMC-9350-0007 is designed to meet the harsh environments of many military and aerospace computing applications. Table 2 illustrates the environmental qualification standards the MPMC-9350-0007 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	Tested Interface	Qty
Gigabit Ethernet	2	USB	2
RS-232	2	ARINC 429 Rx	4
RS-422	2	0-50 V ADC 75 ohm	20
RS-485	8	0-50 V ADC 50 ohm	10
RS-232/422	4	Discrete I/O	16
SATA	1	DIO VCC & GND	4

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