



Highlights

- >> Part of our Advanced Managed Platform Offering
- >> 7U, 19"-Wide, CompactPCI® PICMG® 2.16 Platform
- >> Ten Hot-Swappable, 6U, Standards-Based Slots
 - Eight Payload Slots
 - Two 10/100/1000 PICMG 2.16 Redundant Fabric Slots
- >> Two 3U, Redundant, PICMG 2.9, IPMI-Based Intelligent Shelf Manager (ISM) Slots
- >> IPMI Star Topology for Increased Reliability & Security
- >> One H.110 Bus Segment
- >> One CompactPCI Bus Segment
- >> Up to 975W Redundant N+1 Power & Cooling
 - Up to 80W per Payload Slot
 - IPMI-Based Management on DC Supplies
- >> Efficient Push and Pull, Redundant, Front-to-Rear Cooling Architecture
- >> Designed for NEBS Level 3

The CPC5095 7U PICMG® 2.16 Platform is designed for equipment manufacturers who require a low profile system with complete component redundancy for high availability applications such as softswitches, edge routers, controllers and media gateways. This high density platform features eight node slots, dual PICMG 2.16 fabric slots, dual PICMG 2.9 IPMI-based shelf management slots and redundant power and cooling.

The CPC5095 platform supports five-nines (99.999%) availability with built-in redundancy for all active system components including Layer2/Layer3 Ethernet switches, intelligent shelf managers (ISMs), power supplies and fan trays. Redundant ISMs enable customers to manage all IPMI-enabled components in the platform and conduct chassis diagnostics remotely for enhanced system reliability. Ethernet signals are routed across the midplane without the use of cables, saving time in setup, maintenance and repair and minimizing the thermal challenges of traditional cabling methods. Hot-swappable system components simplify replacement and minimize service time.

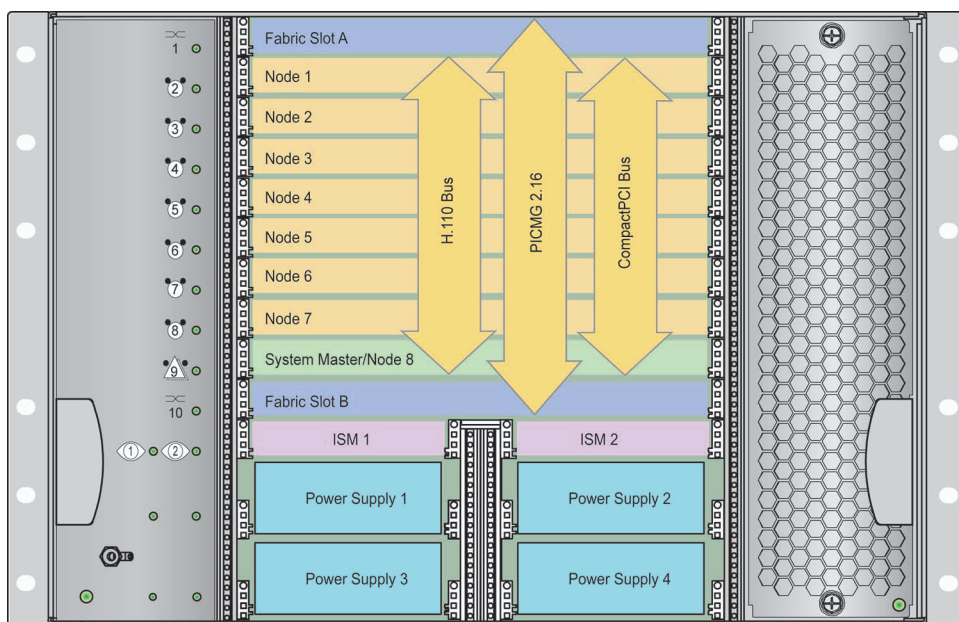


Figure 1: CPC5095 midplane details.
All active components in the platform are IPMI-enabled;
including the fan trays and power supplies.

Midplane Configuration

The CPC5095 midplane features 10 6U x 160mm slots. Slots 1 and 10 are dedicated to 6U, PICMG 2.16-compliant, 10/100/1000 Ethernet switches (fabric boards), and slots 2 through 9 are PICMG 2.16-compliant node slots, each supporting a single 33MHz, 64-bit CompactPCI bus segment and one contiguous PICMG 2.5 R1.0 H.110 bus. Slots 2 through 8 are CompactPCI peripheral slots, and slot 9 is a CompactPCI system master slot.

Below slot 10 are two 3U x 160mm slots for redundant ISMs (CPC7301). The rear panel I/O section directly behind the midplane supports IEEE 1101.11-style and 6U x 80mm rear panel transition modules (RTMs) for all 10 6U slots and a single 6U RTM slot, which supports the redundant pair of ISMs. The V(I/O) plane can be configured for either 3.3V or 5V operation.

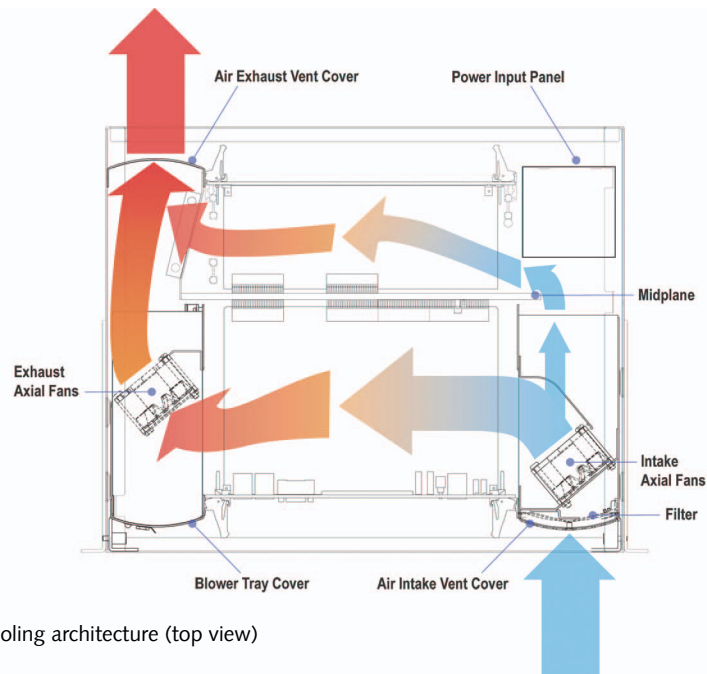


Figure 2: Cooling architecture (top view)

Cooling Architecture

The CPC5095 can power and cool up to 975W of total redundant power. The platform houses two redundant fan trays, serviceable from the front. The intake fan tray draws air from the front and pushes it through the payload and power supplies. The exhaust fan tray pulls the air from the payload and power supplies and exhausts out the rear. Each fan tray supports five fans, supports speed control and provides management features such as fan tachometer, voltage and temperature sensors, and FRU information (e.g. serial number or part number). The exhaust fan tray also includes a status LED for each slot in the platform, including power supplies and ISMs. The CPC5095 also includes air baffles that allow enough airflow to the rear card cage slots to properly cool up to 5W per slot.

About Advanced Managed Platforms

Performance Technologies' Advanced Managed Platform offering, built upon the intelligent AMP™ Architecture, ensures standards-based, reliable and comprehensive management throughout all active platform components, including the power supplies.

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IPnexus™ CPC5095 7U PICMG® 2.16 Platform

Ordering Information

The CPC5095 may be ordered with the following options:

>> Base Enclosure and Power Input Panel

C1: AC input panel
C2: DC input panel

>> Power Supplies

P1: Three CPC6314 325W DC
P2: Four CPC6314 325W DC
P3: Three ZT 6303 250W AC
P4: Four ZT 6303 250W AC

>> Midplane

M1: 7U Platform with
CompactPCI bus & H.110 bus

>> Intelligent Shelf Manager

I1: One CPC7301A-1A
I2: Two CPC7301A-1A

>> ISM Rear Transition Module

R0: No RTM4820A
R1: One RTM4820A

>> Spares

Filler panels: 18299, 20434 & 19275
Air management blades: 20456
Power supplies: ZT 6303, CPC6314
Fan trays: CPC5062A-1A
exhaust fan tray & CPC5063A-1A
intake fan tray
Air filters: 21200

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Specifications

The CPC5095 is compliant with the following:

- CompactPCI core spec. PICMG 2.0, R3.0
- CompactPCI hot-swap spec., PICMG 2.1, R2.0
- CompactPCI system mgmt spec., PICMG 2.9, R1.0
- CompactPCI power interface spec., PICMG 2.11, R1.0
- CompactPCI packet switching backplane spec. PICMG 2.16, R1.0
- IPMI spec., version 1.5
- Standard CompactPCI keying

Power

Input

- AC input 100 to 240V AC (50-60Hz) 9.5-4.0 amps
- DC input: -37.4 to -60V DC 34.0-21.0 amps

Power Supplies	+5V DC	+3.3V DC	+12V DC	-12V DC
Three 325W DC supplies (2+1)	60A	80A	10A	2A
Four 325W DC supplies (3+1)	90A	120A	15A	3A
Three 250W AC supplies (2+1)	80A*		11A	2A
Four 250W AC supplies (3+1)	120A*		16.5A	3A

Output

* ZT 6303 AC power supply, the 5V and 3.3V rails share current

Physical

- Height: 7U, 12.25" (311mm)
- Width: 17.2" (436mm) without rack-mount flanges. Rack mount flanges allow mounting to 19" racks
- Depth: 17" (431mm)
- Weight: 65lbs. (29.55 kg) fully loaded with boards

Environmental

The CPC5095 platform (enclosure, fan trays & midplane) is designed for harsh environments. The platform features sturdy steel and aluminum construction.

- Min. operating temperature: 5° C
- Max. operating temperature:
 - DC power supplies: 40° C¹ (55° for 96 hours²)
 - AC power supplies: 40° C¹ (55° for 96 hours²)

Notes: ¹ The hottest ambient temperature supported by Performance Technologies for the platform is 40° C. Any ambient temperature above 40° C is considered a failure condition. Up to 40° C, this platform supports a single power supply failure, where the total chassis load (including the fans) does not exceed 975W for DC platforms and 750W for AC platforms. ² This platform also supports a severe condition where the ambient temperature is between 40° C to 55° C, with all power supplies operational, for 96 hours.

- Storage temperature: -40° C to 70° C
- Non-condensing relative humidity: 5% to 85% (to 90% for 96 hours)

Regulatory Compliance

Designed for NEBS Level 3 and ETSI Installations

Safety

- UL/cUL 60950 Safety for Information Technology Equipment E179737
 - UL File Number E179737
- EN/IEC 60950 Safety for Information Technology Equipment
- CB Certificate and Report Scheme
- CE Certificate

Emissions Test Regulations

- FCC, Class A
- EN 55022/CISPR 22 Class A Radiated and Conducted Emissions Tests
- EN 55024/CISPR 24
- EN-61000-3-2 Power Line Harmonic Emissions
- EN-61000-3-3 Power Line Fluctuation and Flicker
- EN-61000-4-2 Electro-Static Discharge (ESD)
- EN-61000-4-3 Radiated Susceptibility
- EN-61000-4-4 Electrical Fast Transient Burst
- EN-61000-4-5 Power Line Surge
- EN-61000-4-6 Frequency Magnetic Fields
- EN-61000-4-11 Voltage Dips, Variation & Short Interruptions

Network Equipment-Building System (NEBS) Requirements

GR-1089-CORE

- Sect. 2 Electrical Discharge
- Sect. 3.2.2 Radiated RF Emissions
- Sect. 3.2.3 AC Line Conducted
- Emissions-Voltage
 - Sect. 3.2.4 AC & DC Line Conducted
- Emissions-Current
 - Sect. 3.3.1 RF Radiated Fields
 - Sect. 3.3.3 RF Common Mode

GR-63-CORE Issue 1

- Sect. 5.1.1.1 Low-Temp. Exposure & Thermal Shock
- Sect. 5.1.1.2 High-Temp. Exposure & Thermal Shock
- Sect. 5.1.1.3 High Relative Humidity Exposure
- Sect. 5.3.1 Handling Drop Tests- Packaged Equipment
- Sect. 5.3.2 Unpackaged Equipment Drop Tests
- Sect. 5.4.1 Earthquake Tests
- Sect. 5.4.2 Office Vibration Test Procedure
- Sect. 5.4.3 Transportation Vibration- Packaged Equipment
- Sect. 5.6 Acoustic Noise Test

Note: To provide proper cooling to the CPC5095, each unused slot in the chassis must be populated with an air management blade. All rear slots should be populated with a rear filler panel. See the list below for orderable components:

- To cover a single rear panel slot, use a filler panel that is 6U x 4HP (horizontal pitch=0.2") (PN 18299).
- To cover six rear panel slots, use a filler plate that is 6U x 24HP (PN 20434).
- To fill a front slot, use an air management blade that is 6U x 4HP (PN 20456).
- To fill a power supply bay, use a filler plate that is 3U x 8HP (PN XXXXX).
- To fill an ISM slot, use a filler panel that is 3U x 4HP (PN 18309).