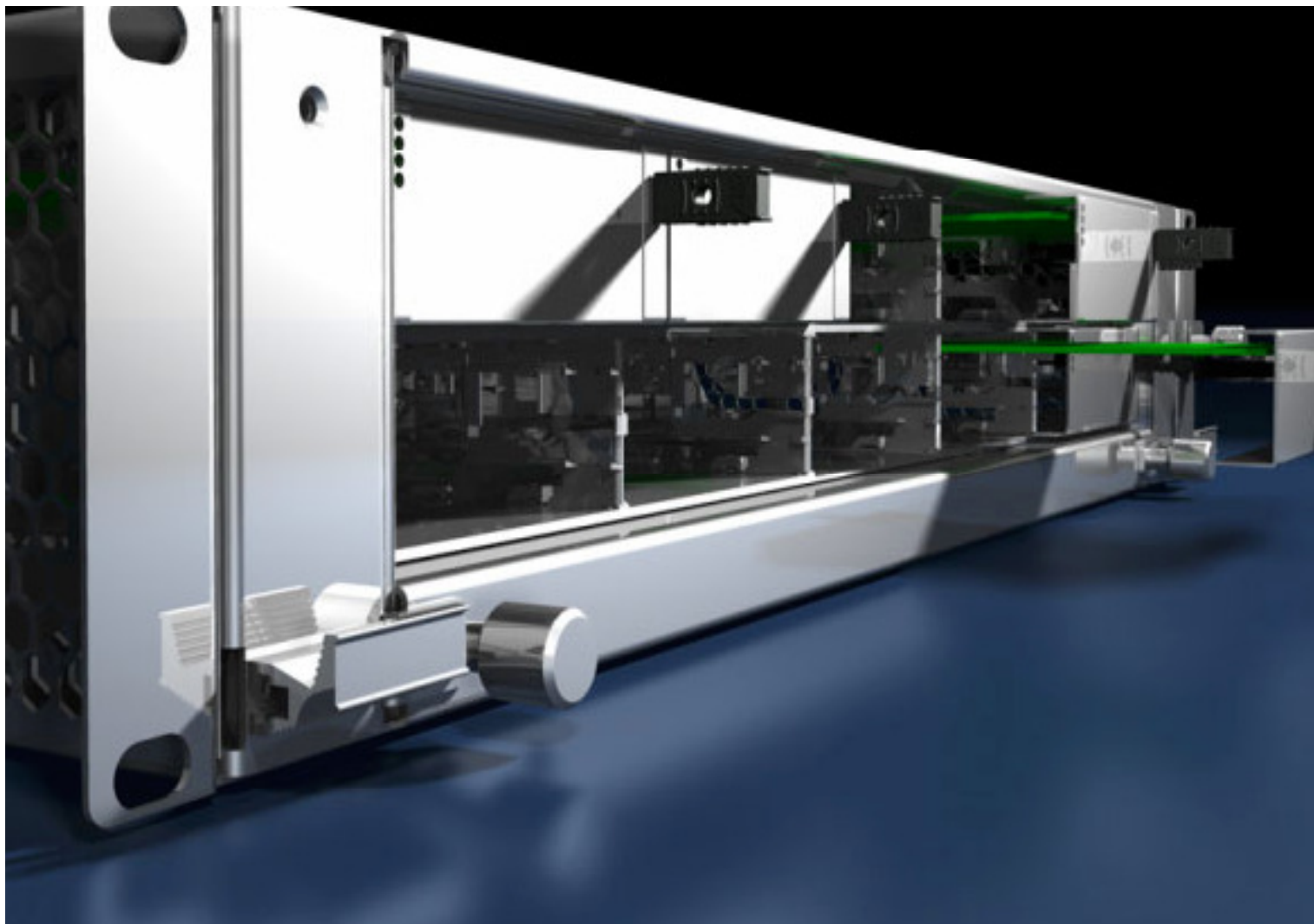


PicoTCA, 2 U, 19", 12 AMC



The PicoTCA chassis is a modular 19" chassis in 2 U design supporting up to 12 AMCs in full-size/compact form factor, and one MCH in full-size. As an option AMC in "double full-size" is also supported. The integrated AC/DC power pack supplies the necessary voltages of 3.3 V for the IPMI and 12 V for the AMCs. PicoTCA was developed for laboratory and field environments and reflects essentially the specifications of **PICMG MicroTCA.0 R1.0**. Existing and new applications can be migrated to this MicroTCA platform both quickly and cost effectively. This represents a decisive benefit for developers of industrial and telecommunications applications.

Features

- 2 U/19" 12 AMC-slot MicroTCA chassis
- MicroTCA backplane supports AMC.0, AMC.1, AMC.2, AMC.3 and AMC.4
- Integrated power management board with EMMC
- Telco Alarm function (optional)
- 2 integrated Cooling Units
- Integrated 450W PSU 90 -264 VAC (No redundancy)
- Supports Full-size and Compact AMCs
- Support for up to 12.5 Gb/s
- JTAG connector on backplane
- IPMI v1.5 compliant
- Supports Hot Swap per AMC.0

PicoTCA, 2 U, 19", 12 AMC

Backplane Interconnect

The platform provides Common Option (CO) and Fat Pipe (FP) region connectivity to each installed AdvancedMC. These are non-blocking Gigabit Ethernet channels to Port 0 of each AdvancedMC slot that are provided by the MCH for CO connectivity.

PCI Express x4 connections in the Fat Pipe to each AdvancedMC slot are supported.

Point-to-point backplane connections between AdvancedMC slot ports 2 and 3 provide support for SATA or SAS AdvancedMCs in the system. See Fig.3 PicoTCA backplane configuration.

Thermals

The 2 U chassis has integrated dual front replaceable Cooling Units (CU). Air intake is through a replaceable air filter. The air flows from right to left through the chassis. Sufficient airflow is provided to cool 40 Watt/ board in each AdvancedMC slot. See Fig.4 Thermal distribution.

IPMI and JTAG Support

The IPMI-based management architecture provides all hardware management support. The MicroTCA Carrier Management Controller (MCMC), located on the MCH, provides the primary management function. Radial IPMB-L connections are routed from the MCH to individual AdvancedMC slots. Dual Redundant IPMB-0 buses are routed from the MCH to the PSU and CUs.

A JTAG Switch Module (JSM) connector on the backplane enables the JSM that provides a mechanism for system-level test based on the JTAG.

Specifications

Chassis

- 2 U chassis: 87 x 482.6 x 250 mm (HxWxD)
- 13 slots: 12xAMC, 1xMCH
- Weight: 5.9kg
- Designed according to EN60950-1

Power Unit (PSU & Management Board)

- 450W
- AC inputs 90-264 VAC 47-63Hz with PFC
- Provides management and payload power to 12 AdvancedMCs, 1 MCH, and Cooling Units
- EMMC with IPMB to facilitate communication with the Carrier Manager
- Status LEDs for management- and payload

Backplane

- MicroTCA backplane supports AMC.0, AMC.1, AMC.2, AMC.3 and AMC.4 specifications
- 1x Gigabit Ethernet on Port 0
- SATA/SAS on adjacent Ports 2 & 3
- 4x PCI Express on Ports 4, 5, 6 & 7
- JTAG connector for debug and test
- AdvancedMC connectors based on con:card+ design
- Processor AdvancedMC can communicate with adjacent SAS/SATA module via point-to-point connection

Cooling Units (CUs)

- 2 hot-swappable fan trays with 2 fans each (push & pull)
- Each tray provides up to 62cfm (105m³/h), air pressure 52 PA

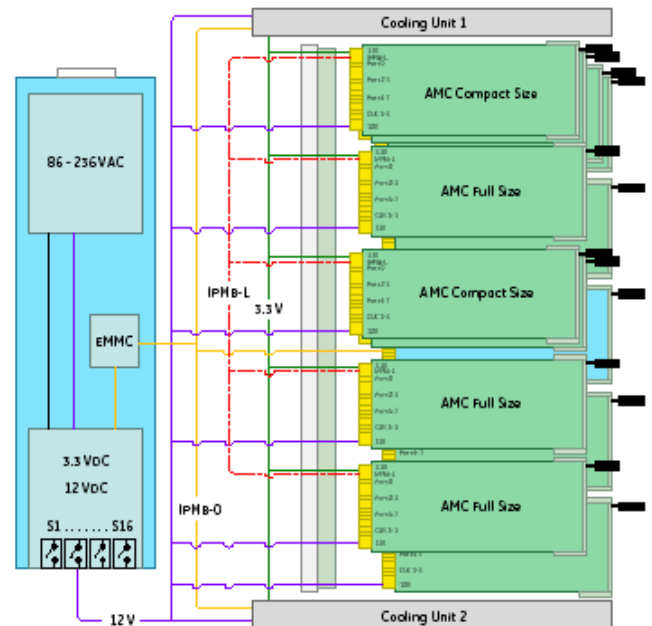
System Mounting

- Mounted in a 19-inch rack or use stand alone

Environmental

- Temperature - Operating: 0° to +45 °C
- Storage -40° to +85 °C
- Relative Humidity - Operating: 5% to 90% non-condensing
- Storage 5% to 90% non-condensing
- Shock & Vibration
- IEC 61587-1, DL1

Fig.1: Platform Configuration



PicoTCA, 2 U, 19", 12 AMC

Fig.2: Sample Slot Configuration

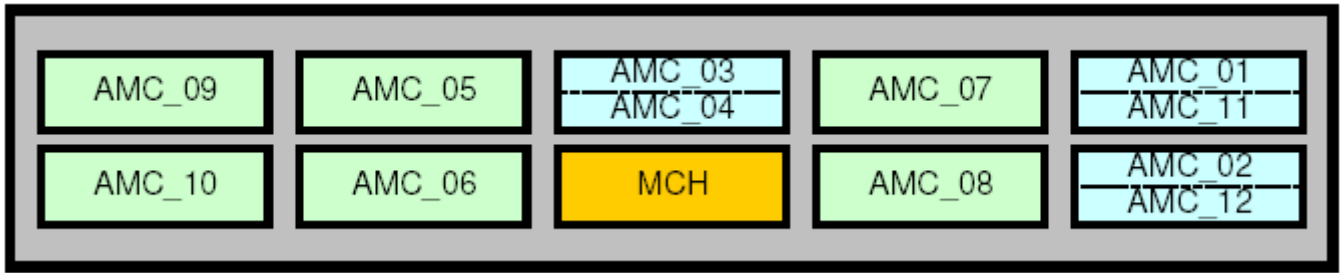
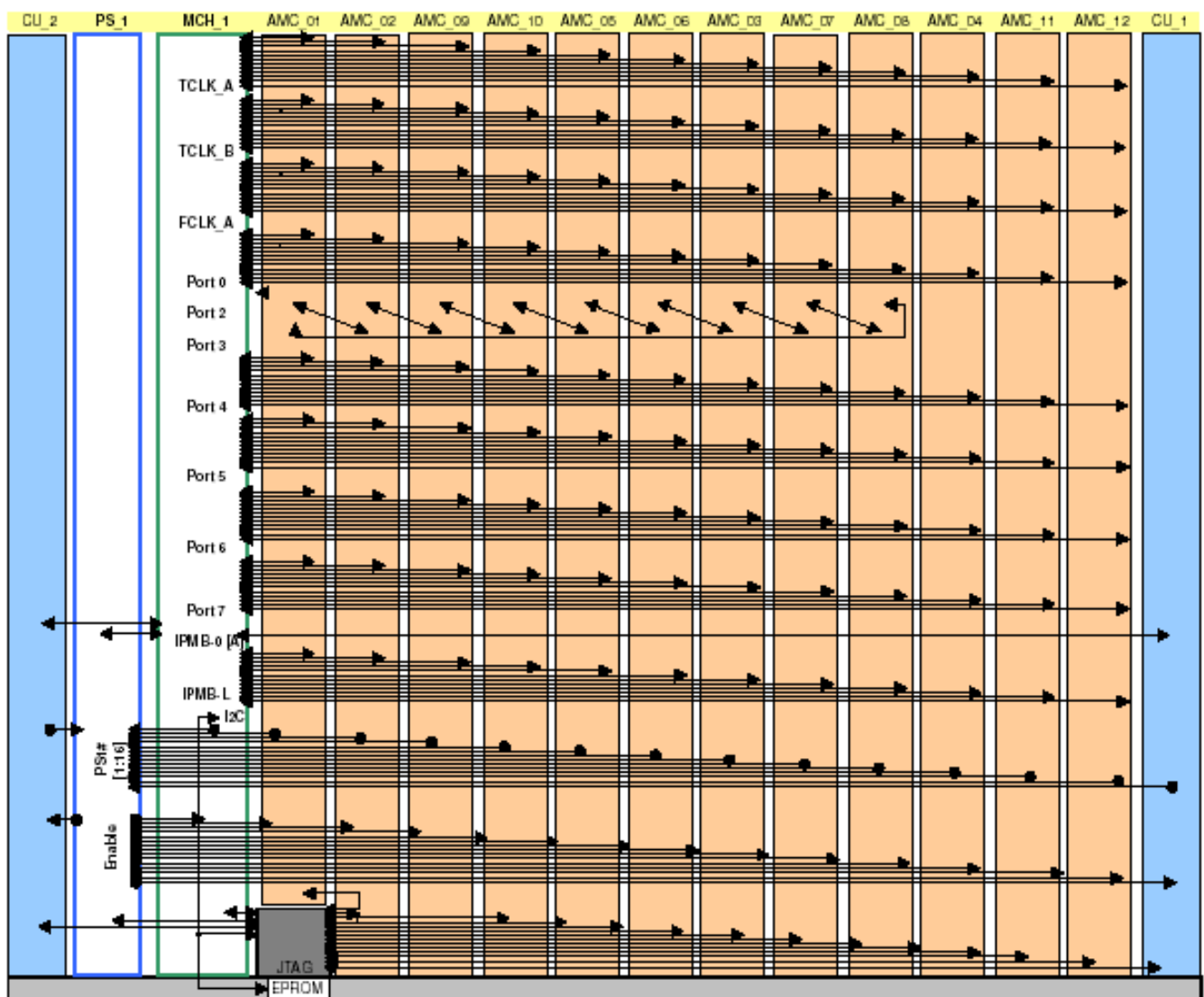
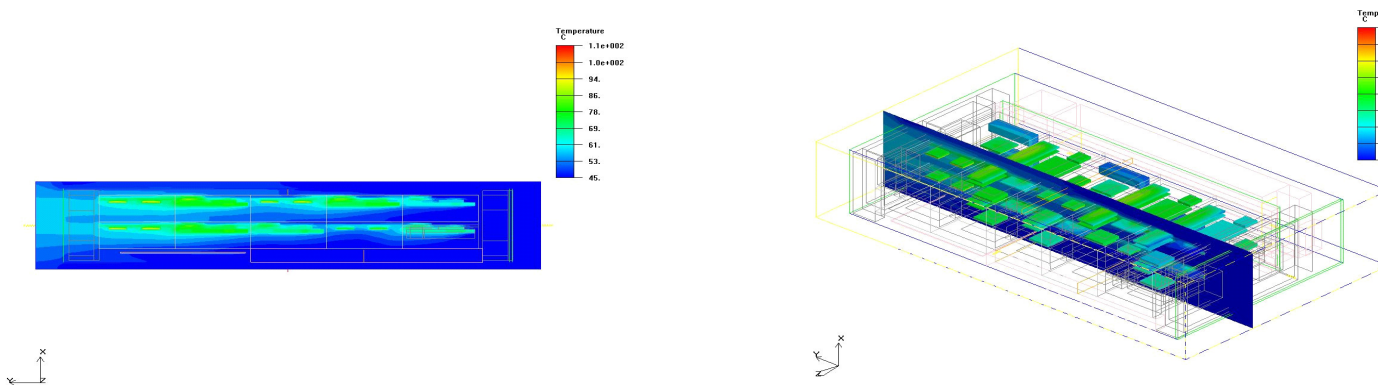


Fig.3: PicoTCA Backplane Configuration



PicoTCA, 2 U, 19", 12 AMC

Fig.4: Thermal Distribution



Thermal Simulations Summary

- Temperature difference air inlet/outlet of the chassis is 10K

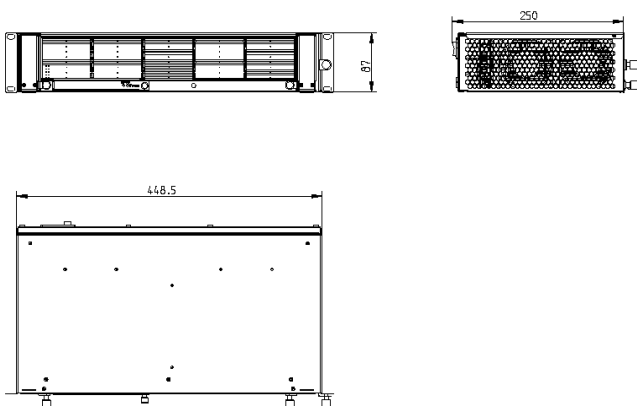
Regulatory Compliance

- EN 60950-1/UL 60950
- LVD 2006/95/EG
- EN 55022 class A
- FCC Part 15, Class A
- EN 55024
- EN 61000-3-2/ EN61000-3-3

Supply includes

- 1 rack-mounted system 482.6 mm (19"), 2 U,
- 250 mm deep
- 2 fan tray modules
- 1 air filter
- 1 power supply unit
- 1 power management board
- 1 backplane, 13 slots

Fig.5: PicoTCA Chassis



Order Information

Description	Packs of	Model No. RP
PicoTCA	1	9911.803

Accessories

Part Number	Description
9910.104	Ri-MCH-base12-GbE
9909.923	Ri-MCH-base12-GbE-SSC-PCIe x24
9906.621	Ri-MCH-base12-GbE-SSC-PCIe x48
3666.000	Ri-MCH-base12-GbE-TC-SRIO x48
9911.570	AMC filler sheet single
9911.891	Air baffle plate compact
9911.893	Air baffle plate full-size
9911.885	AMC face plate kit single x compact
9911.886	AMC face plate kit single x full-size

Country specific power cables

Part Number	Voltage [Volt]	Country version
7200.210	230	D/F/B
7200.211	230	GB
7200.213	230	CH
7200.214	230/115	USA/CDN

Note: PicoTCA supply does not include mains lead. Customer should place a separate order for this according to the country version.

