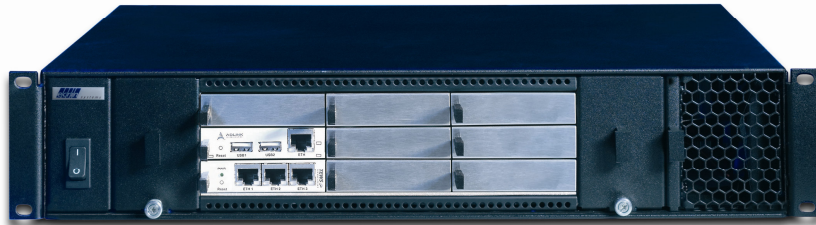# Pico DIAMANT

2U 19" 8 Slots Simple MicroTCA Chassis

μTCA™   AdvancedMC™

Pico DIAMANT Simple MicroTCA® chassis is a 2U 19" rack offering 8 AdvancedMC™ mid-size slots, and optional up to 3 double mid-size slots. Pico DIAMANT system is the perfect base for low cost computer platforms in medical, industrial automation, transportation, military, and telecommunication. It supports high-end computing applications with up to 8 CPU modules as well as I/O intensive configurations. Based on the MicroTCA® and AdvancedMC™ PIGMG® standards it is the best solution for long life cycle applications.

Pico DIAMANT includes a Simple MicroTCA Support Module (SSM) which provides carrier management functions, PCIe switching, PCIe clock generation, power control, monitoring of temperature, voltages, and fans. The front panel offers two Gigabit Ethernet ports and the systems management interface through a Fast Ethernet port.
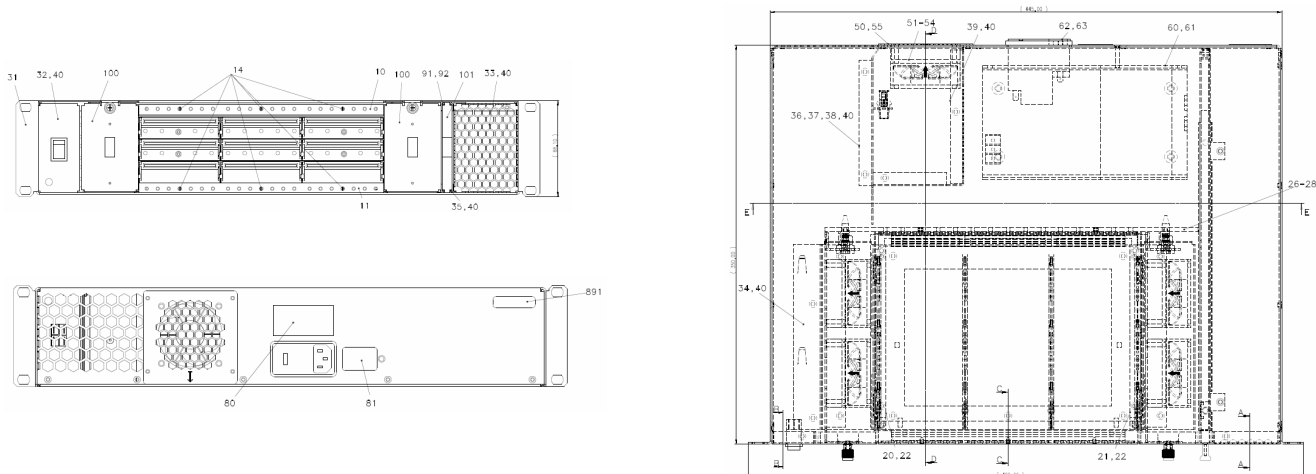
PCI Express™ is the Pico DIAMANT systems basic communication protocol. For inter-module communication PCIe, SATA, GbE, 10GbE, Serial RapidIO® protocols can be used. The backplane provides rear I/O, and all slots fully support hot-swap.

The system has a 350W AC power supply. The dust filter and all fan cartridges are hot-swappable. An optional DC input power supply is also available.

Features

- *19" Rackmount, 2U height*
- *8 AdvancedMC mid-size slots,*
  up to 3 double mid-size slots
- *AMC.0, AMC.1, AMC.2, AMC.3 compliant*
- *Full hot-swap support*
- *Simple MicroTCA® Support Module*
- *Rear-I/O*
- *350W AC power supply*
- *Front to rear air flow*
- *Low cost platform*

Dimensions

System Configuration

AMC slot 1 is the CPU slot, and should carry an AMC module with PCIe x4 or x8 interface on ports 4-7 or 4-11. Any processor or I/O AMC module may be used in AMC slots 2-8.

The CPU slot ports 4-11 are routed to the SSM PCIe switch, and further distributed as PCIe x1 lanes to each port 4 of all other AMC slots. The backplane supports slot-to-slot connections for the (telecom) clock signals. Fixed connections are available for the AMC ports 0-3, and 5-11. These connections support PCIe, SATA, GbE, Serial RapidIO®, and on ports 8-11 also 10GbE data transmission. The system does not support switched fabrics. The backplane has rear I/O connectors for each slot.

Specifications

Construction	19" rackmount, 2U height, shelf-contained top and bottom cover, RAL 9005 painted
Shelf Manager	Simple MicroTCA Support Module including carrier management, PCIe switching, PCIe clock generation, power control, monitoring of temperature, voltage, and fans, SNMP support
Cooling System	3 hot-swap fan cartridges with 5 fans total, front to rear air flow
Backplane	12 layers backplane with integrated power and fan connectors
Power Supply	350W AC power module, MTBF > 300.000 h
Weight	9.0 kg incl. SSM
Operating Temp.	-5°C … +50°C
Storage Temp.	-25°C … +85°C
Humidity	up to 95% Non-Condensing
Electromagnetic Compability	System configuations conforming to EN55022 class B and EN61000-4-3 supported
Safety	EN-60950
Dimensions	19" x 2U x 350 mm (W x H x D)
Compliance	MicroTCA : PIGMG MTCA.0 R1.0 / AdvancedMC : PIGMG AMC.0 R2.0 and AMC.1 R1.0 / Simple MicroTCA : SMTCA.0 R1.0

Ordering Informations

Pico DIAMANT: 2U/19'' SMTCA, 8 slots AMC including SSM and Power Supply
Options: - AMC-1000/L7400/M2G : Pr AMC Intel Core 2 Duo, L7400, 1.5GHz, 2GB SORDIMM
              - AMC600-202-221-000 : AMC SATA 100GB
              - Linux Red Hat Enterprise or Debian
              - Microsoft Windows XP Pro OEM