Pinnacle
Data
Systems,
Inc.

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Dual AMD Opteron™ ATCA® Blade with RTM Interface

Product Datasheet

PDSI's **Dual AMD Opteron™ ATCA® Blade with RTM Interface** (ATCA-F1) provides a robust, high-performance general purpose server platform for use in building AdvancedTCA® systems. Architected around AMD Opteron processors with HyperTransport™ technology, it features two "Socket F" CPU sockets that can be populated with either 2200 series dual-core or the latest 2300 series quad-core processors for ultimate computing power in the carrier-grade AdvancedTCA™ form factor.

This third generation blade features a Zone 3 interface for connection to PDSi's ATCA-RT01 rear transition module (RTM), which adds SAS storage, video, and USB resources. Other on-blade features include a Compact Flash site and an AdvancedMC™slot for additional I/O or further storage expansion. The ATCA-F1 complies with PICMG ATCA 3.0 and 3.1 specifications for seamless and dependable operation in critical applications, and includes Pigeon Point's module management for IPMI support and board-level health monitoring.

PDSi gives telecom, aerospace, and military OEMs the ability to deploy configurable, scalable, high-reliability ATCA solutions using this powerful compute blade based on AMD's latest Dual Core and Quad Core processor technology. Extended availability from PDSi is assured as key components are supported by embedded roadmaps. PDSi can also provide customization, turnkey integration and support of ATCA systems, as well as extended warranty and repair services.

Key Features

- AMD-based AdvancedTCA blade server
- 2 x AMD Socket F (1207 pin) CPU sockets
  - One or two AMD Opteron processors
  - Dual-core and Quad-core
- Zone 3 RTM interface (to ATCA-RT01 RTM)
- 4 DIMM sockets, up to 32GB DDR2 Memory
- 2 x Gb Ethernet Base and Fabric Interfaces
- 2 x 1Gb Ethernet links (Front panel)
- 2 x USB 2.0 (Front panel)
- 1 x AMC.1 slot (Mid-size)
- Optional onboard boot drives
- Pigeon Point IPMC management
- VMWare-certified
- Extended availability assured

High Performance, High Availability

PDSi's ATCA-F1 blade and its companion RTM (ATCA-RT01) are VMWare-certified and targeted at the following industries and applications requiring the ultimate in computing capability and dependability:

Telecom

Enterprise

Military

Aerospace

ATCA-RT01

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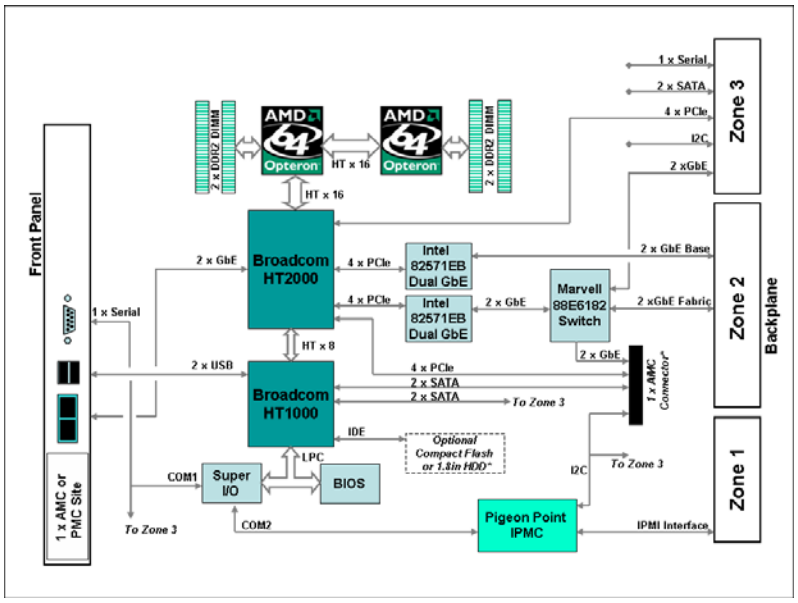
Dual AMD Opteron™ ATCA® Blade with RTM Interface

Processors 1 or 2 AMD Opteron™ processors, Dual-core or Quad-core
- High performance CPUs with Integrated Memory Controller and HyperTransport.
- 2200 series HE and EE dual-core models
- 2300 series Shanghai quad-core models

Chipset Broadcom HT2000 / HT1000
Intel 82571EB Dual GbE controller
Marvell GbE Switch chip

Memory 4 DIMM sockets (2 per processor)
Up to 32 GB DDR2 ECC Registered PC5300 (667 MHz) SDRAM

Storage Optional 4GB or 8GB Compact Flash or 60GB 1.8 inch drive



Front Panel

Ethernet 2x Gigabit Ethernet ports (RJ45)
USB 2x USB 2.0 ports
Serial 1x DB-9
LEDs Hot-swap, Out of Service, 2 user-defined

Backplane Interfaces

Base 2x Gigabit Ethernet
Fabric 2 x Gb SERDES Ethernet
Supports dual-star backplane topology

Zone 3 RTM Interface

Compatibility PDSi ATCA-RT01 RTM provides SAS storage, VGA video, USB, GbE, Serial

AMC Expansion AMC.1 compliant slot
Accepts 1 - mid size AMC module

System Management Pigeon Point IPMC

Compliance PICMG ATCA 3.0 R2, ATCA 3.1 R1
IPMI V1.5, NEBS Level 3, ETSI
RoHS Directive 2002/95/EC

Operating Systems Linux (RHEL 4&5, SuSe, Fedora)
Windows (XP, Server2003), Solaris x86
VMWare ESX 3.5 certified

FormFactor/ Dimensions PICMG ATCA Single slot 8U board
280mm(D) x 322mm(H) x 30.48mm(W)

Temperature Operation : -5 to 55 degC (Dual Core CPUs)
Quad Core CPUs – consult PDSi

Humidty 5% - 90% non-condensing

Ordering Guide

To configure OPN:

(1) Select 1 or 2 Processors
(2) Select Processor Type
(3) Select Memory Size
(4) Optional AMC Module
(5) Optional Onboard Storage

Description

ATCA-F1- [x x] - [x] - [x] - [x]

AMD Socket F AdvancedTCA Blade, with:

Onboard Storage
0 none
1 60 GB 1.8 inch HDD
2 4 GB Compact Flash
3 8 GB Compact Flash

AMC Module
0 none
C Combo 200GB HDD plus Video
H 120GB HDD Module (not RoHS)
V Graphics Module, 8MB (not RoHS)

Memory
1 2GB DDR2 ECC Reg PC5300 (667 Mhz) SDRAM
2 4GB DDR2 ECC Reg PC5300 (667 Mhz) SDRAM
3 8GB DDR2 ECC Reg PC5300 (667 Mhz) SDRAM
4 16GB DDR2 ECC Reg PC5300 (667 Mhz) SDRAM (2 CPUs only)
5 32GB DDR2 ECC Reg PC5300 (667 Mhz) SDRAM (2 CPUs only)

Processor
A AMD Opteron™ 2210EE, dual core, 1.8GHz, 45W max,
B AMD Opteron™ 2214HE, dual core, 2.2GHz, 68W max
P AMD Opteron™ 2374HE, quad core, 2.2GHz, 55W avg 35degC
S AMD Opteron™ 23NS, quad core, 2.2GHz, 55W avg

Processors
1 One CPU
2 Two CPUs

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