Pinnacle
Data
Systems,
Inc.

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Dual AMD Opteron® Socket F AdvancedTCA® Blade

Product Datasheet

PDSI's **Dual AMD Opteron® Socket F AdvancedTCA® Blade** (ATCA-F0) provides a robust, high-performance general purpose compute platform for use in building AdvancedTCA® systems. Architected around AMD's x86-based Opteron™ 2200/2300 series, it features two "Socket F" CPU sockets that can be populated with either dual-core or the latest quad-core processors for ultimate computing power in the carrier-grade AdvancedTCA™ form factor

The ATCA-F0 complies with PICMG ATCA 3.0 and 3.1 specifications for seamless and dependable operation in critical applications. It features onboard Compact Flash or 1.8 inch HDD boot drive options in addition to an AdvancedMC™slot for additional I/O or further storage expansion. It also 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 compute blade
  - PICMG ATCA 3.0 and 3.1
- 2 x AMD Socket F (1207 pin) CPU sockets
- AMD Opteron 2200/2300 series Processors
  - Dual-core and Quad-core support
- 4 DIMM sockets, up to 16GB DDR2 Memory
- 2 x Gb Ethernet Base Interface
- 4 x Gb Ethernet Fabric Interface
- 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
- Extended availability assured

High Performance, High Availability

PDSi's ATCA-F0 blade is targeted at the following industries and applications requiring the ultimate in computing capability and dependability:

Telecom
- Core applications
- Edge applications
- Access applications

Enterprise
- Gateways
- Access Servers
- Security

Military/Aerospace/Defense
- Avionics platforms
- Communications systems
- Real-time Intelligence systems

PN 818-0105-01 RevE1

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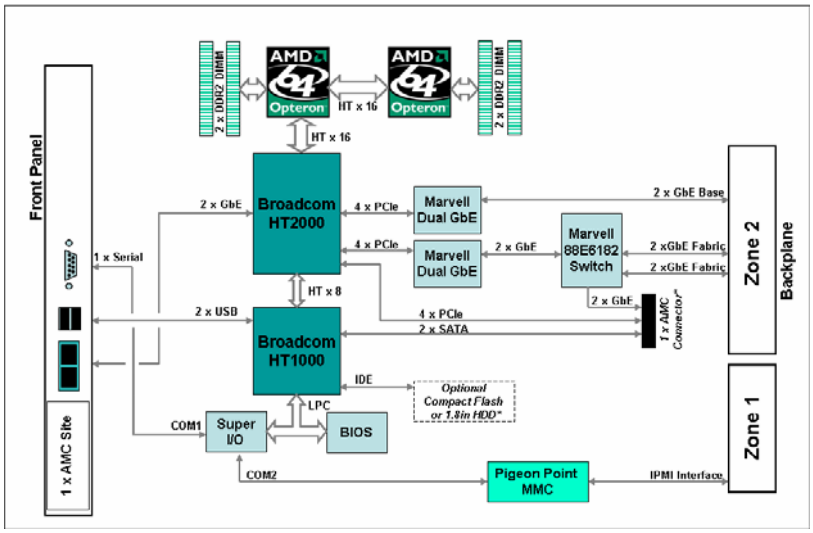
Processors 1 or 2 AMD Opteron™ processors, Dual-core or Quad-core
- High performance CPUs with Integrated Memory Controller and HyperTransport.
- 2200 series HE and EE dual-core models
- 2300 series HE quad-core models

Chipset Broadcom HT2000 / HT1000
Marvell Dual GbE controller
Marvell GbE Switch chip

Memory 4 DIMM sockets (2 per processor)
Up to 16 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
USB	2x USB 2.0 ports
Serial	1x RJ45
LEDs	Hot-swap, Out of Service, 2 user-defined

Backplane Interfaces

Base	2x Gigabit Ethernet
Fabric	4 x Gb SERDES Ethernet (multiplexed through switch chip) Supports dual-star backplane topology
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, Windows, Solaris x86
FormFactor/ Dimensions	PICMG ATCA Single slot 8U board 280mm(D) x 322mm(H) x 30.48mm(W)
Temperature & Humidty	Operation : -5 to 55 degC (Dual Core CPUs) 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-F0- 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)

Processor
- **A** AMD Opteron™ 2210EE, dual core, 1.8GHz, 45W max,
- **B** AMD Opteron™ 2214HE, dual core, 2.2GHz, 68W max
- **C** AMD Opteron™ 2216HE, dual core, 2.4GHz, 68W max
- **D** AMD Opteron™ 2218HE, dual core, 2.6GHz, 68W max
- **J** AMD Opteron™ 2346HE, quad core, 1.8GHz, 55W avg
- **K** AMD Opteron™ 2347HE, quad core, 1.9GHz, 55W avg

Processors
- **1** One CPU
- **2** Two CPUs

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