

# Dual AMD Opteron™ ATCA® Blade with RTM Interface



## Product Datasheet

PDSi's **Dual AMD Opteron™ ATCA® Blade with RTM Interface** (ATCA-F1) is a military-proven, high-performance general purpose server platform for AdvancedTCA® systems. Architected around AMD Opteron processors with HyperTransport™ technology, it features two CPU sockets that can be populated with the latest AMD 23QS "Shanghai" 2.4GHz quad-core processors, for a total of eight-cores. And for the ultimate in ATCA computing power, PDSi's ATCA-F1 blade supports up to 32GB of 800MHz memory.

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. See PDSi's **AMC-E24D** module for an excellent space-saving AMC combining SATA storage and dual hi-res video.

PDSi gives telecom, aerospace, and military OEMs and integrators the ability to deploy configurable, scalable, high-reliability eight-core ATCA solutions using this powerful compute blade based on AMD's Shanghai 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
  - AMD Opteron processors
  - Quad-core "Shanghai" or Dual-core
- Zone 3 RTM interface (to ATCA-RT01 RTM)
- 4 DIMM sockets, up to 32GB DDR2 800MHz
- 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

**AdvancedTCA®**



### 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:

**Rugged Military Servers**

**Flexible Aerospace Platforms**

**Powerful Telecom Convergence**



- Processors** 2 AMD Opteron™ processors,  
Quad-core or Dual-core
- 23QS HE "Shanghai" quad-core 2.4GHz
  - 23KS EE low power "Shanghai" quad-core 2.0GHz
  - 2214 HE dual-core 2.2GHz
  - High performance CPUs with Integrated Memory Controller and HyperTransport.
- 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 PC2-6400 (800 MHz) SDRAM
- Storage** Optional 4GB or 8GB Compact Flash

**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**

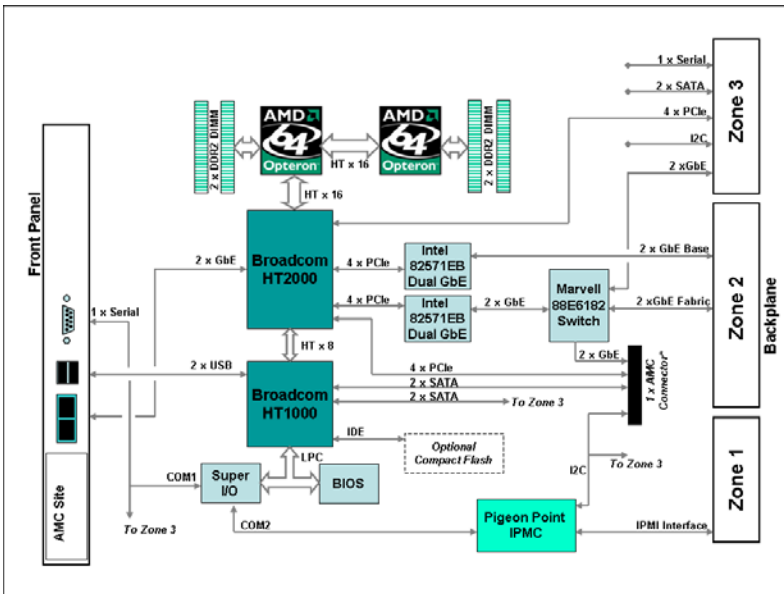
- PICMG ATCA Single slot 8U board  
280mm(D) x 322mm(H) x 30.48mm(W)

**Temperature**

- Operation : -5 to 55 degC

**Humidity**

- 5% - 90% non-condensing



**Recommended for use with this ATCA Blade:**

**AMC-E24D Dual Display Graphics + Storage Module**  
High resolution DVI and VGA graphics plus optional SATA HDD or Intel SSD on a mid-size AMC.

**ATCA-RT01 Graphics + Storage RTM**  
VGA graphics, SAS HDD plus Ethernet, serial and USB rear interfaces. Mil-proven and VMWare-certified.

Ordering Guide	Description
ATCA-F1- [2] [x] - [x] - [0] - [x]	<b>AMD Socket F AdvancedTCA Blade, with:</b>
	<u>Onboard Flash Storage</u>
	0 none
	2 4 GB Compact Flash
	3 8 GB Compact Flash
	<u>Memory</u>
	3 8GB DDR2 ECC Reg PC5300 (667 MHz) SDRAM
	4 16GB DDR2 ECC Reg PC5300 (667 MHz) SDRAM
	7 16GB DDR2 ECC Reg PC6400 (800 MHz) SDRAM
	5 32GB DDR2 ECC Reg PC5300 (667 MHz) SDRAM
	6 32GB DDR2 ECC Reg PC6400 (800 MHz) SDRAM
	<u>Processor</u>
	B AMD Opteron™ 2214HE, dual core, 2.2GHz, 68W max
	Q AMD Opteron™ 23QS HE, quad core, 2.4GHz, 71W max
	K AMD Opteron™ 23KS EE, quad core, 2.0GHz, 50W max