



V Rose Microsystems, Inc.

www.vrosemicrosystems.com

VRM-PSA-100

Product Data Sheet

Overview:

The V Rose Microsystems, Inc. VRM-PSA-100 is the Fujitsu AXEL X2 10 Gigabit Ethernet switch based AMC carrier board in a single slot ATCA form factor. The board supports 3 Mid-Size B+ AMC bays, each with two 10GBase-KX4 Fat Pipe and two 1000Base-KX Base interfaces. As a build option four SFP+ or SFP cages can be installed instead of the AMC B1 bay. The PSA-100 provides six 10GBase-KX4 Fabric Channel and six 1000Base-T Base Channel interfaces to the ATCA backplane. Therefore, the PSA-100 will function as an AMC Carrier Node Board in any ATCA Chassis or as an AMC Carrier Hub Board for Dual Star or Full Mesh ATCA backplanes supporting 7-slots or less. Please refer to the block diagram for detailed configuration.



Features:

10 Gigabit Ethernet Switch

Fujitsu MB86C69RBC (AXEL X2) 5th Generation 26-port 10 gigabit Ethernet switch

- 520Gbps aggregate throughput
- Integrated SerDes
- Pin-to-pin switching latency of 300nS (including SerDes)
- On-chip Multi-port Stream Memory and buffer management
- Cut-through, Priority queues and Jumbo Frame support for high-performance cluster
- Extended VLAN (up to 64) for Logical Partitioning
- Dedicated GMII Switch management port
- Support unmanaged L2 switching

Switch Management Processor

Intel next-generation System-on-Chip (SoC) processor EP80579

- 600MHz, 1066MHz, and 1200MHz core speed available
- Integrated Memory Controller Hub (MCH)
- 2Gbyte 72-bit ECC DDR2 memory running up to 800MHz
- 2-4GB SSD mass storage
- SSD and PXE boot support
- Serial Console redirection

AMC Bays

Three Mid Size B+ AMC Bays

- Two 10GBase-KX4/1000Base-KX auto negotiable interfaces on AMC Fat Pipe Lane[4:7] and Lane[8:11]
- Two 1000Base-KX interfaces on AMC Common region Lane[0] and Lane[1]
- Rotational Lane[2] and Lane[3] routing scheme for flexible storage support
- A configuration option is provided where the B1 AMC Bay can be replaced with 4 cages for SFP+ (10Gbps) or SFP (1Gbps) front panel interfaces connecting directly to switch

aTCA Backplane Interface

- Six 1000Base-T ATCA Base Channel interfaces
- Six 10GBase-KX4 / 1000Base-KX auto-negotiable Fabric Channel interfaces

Environmental

- Operating Temperature: 0 to 55C
- Humidity: 0 to 95 C (non condensing)
- Power Consumption: TBD

Ordering:

VRM-PSA-100: ATCA AMC Carrier Switch Blade



V Rose Microsystems, Inc.

www.vrosemicrosystems.com

VRM-PSA-100

Product Data Sheet

