RadiSys

DATASHEET

FEATURE SUMMARY

- Field tested high performance board that is very well suited for thermally constrained environments. Delivers superior performance/watt ratings and performance/$ value.
- Superior subsystem scalability and greater density; more subscribers/transactions per board to allow more network elements in an AdvancedTCA* chassis, which improves system scalability
- Backplane supports high I/O requirements and access to high-speed storage systems
- Enables carrier-grade system reliability and manageability such as controlling board power and monitoring onboard sensors using dual Intelligent Platform Management Bus (IPMB) connections

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Promentum MPCBL0040

Dual-core Xeon Compute Processing Module

The RadiSys® MPCBL0040 single board computer is a high compute board introducing powerful multi-core architecture compliant with the Advanced Telecom Computing Architecture (AdvancedTCA*) specification. In production since 2006 and field tested by several top tier Service Providers, the MPCBL0040 features two Dual-Core Intel® Xeon® processors LV 2.0 GHz, providing a total of four processor cores per board. This design achieves significant performance improvements in multithreaded applications such as IP Multimedia Subsystem (IMS), IPTV, and Wireless Control Plane applications.

The MPCBL0040 is also designed to interoperate with AdvancedTCA products from RadiSys and with third-party building blocks meeting the PICMG* 3.0 specification.

Dual-Core Intel® Xeon® LV 2.0 GHz Processor

The processor subsystem on the MPCBL0040 offers:

- Field tested high performance board that is very well suited for thermally constrained environments. Delivers superior performance/watt ratings and performance/$ value.
- Superior subsystem scalability and greater density; more subscribers/transactions per board to allow more network elements in an AdvancedTCA* chassis, which improves system scalability
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AdvancedMC*

The MPCBL0040 has one AdvancedMC* which supports the next-generation mezzanine card standard optimized for AdvancedTCA. AdvancedMC uses PCI Express* and Gigabit Ethernet for maximum throughput. In addition, the increased board area and power envelope enables the MPCBL0040 to support high-density I/O and processor mezzanines.

AdvancedMC provides full hot-swap support and allows management via an onboard IPMB bus AdvancedMC cards can also reduce time-to-market because AdvancedMC provides baseboard modularity via an easy-to-use expansion slot that requires no infrastructure changes.

Promentum MPCBL0040 Specifications

FEATURE	FUNCTION	DESCRIPTION
Physical	Dimensions	Height - 8U, 14 inches (35.56 cm)
		Width- 1.2 inches (3.048 cm)
		Depth - 11.02 inches (28 cm)
		Weight - 7 pounds (3.18 kg)— without packaging 8.82 pounds (4.01 kg) — with packaging
	Compliance	AdvancedTCA - PICMG 3.0 R1.0 and ECN0001 AdvancedMC- AMC.0, AMC.1, AMC.2 IPMI – IPMI v2.0
Processor	Type	Dual Core Intel® Xeon® processor LV 2.0 GHz
	Core	Dual core using Chip Multi Processing (CMP) architecture
	Processor Side Bus	667 MHz
Memory	Cache memory	2 MB L2 cache per processor
	Maximum memory capacity	8 GB SDRAM using two 4 GB DDR2-40 Registered ECC SDRAM DIMMs
	Number of DIMM slots	Two
Chipset	Memory Controller Hub	Intel E7520
	I/O Controller Hub	Intel 6300ESB
Operating System	Linux*	Validated with Red Hat Enterprise Linux 4, Update 3 Validated with MontaVista Linux Carrier Grade Edition (CGE)* 4.0 Validated with Wind River Platform for Network Equipment, Linux Edition* 1.2

Connectors, Front Panel		One USB 2.0 port One serial port (RJ45) One AdvancedMC* single-width, mid-size (x4/x8 PCI Express, x1 SAS, dual Gb Ethernet) Two 10/100/1000 Ethernet ports LEDs for hot swap, out-of-service, health, hard drive activity, and Ethernet portsOne USB 2.0 port
Connectors, Rear Transition Module Ports		
		One Serial port (RJ-45)
		One USB 1.1 port
Connectors, Backplane		Dual Gigabit Ethernet (AdvancedTCA Base Interface) Quad Gigabit Ethernet (AdvancedTCA Fabric Interface; PICMG 3.1, option 2) Dual IPMB connections (Zone 1) Support for Rear Transition Module (Zone 3)
	-	
Power	Supported Voltage (Normal)	-38VDC to -72VDC
	Maximum Power Draw	165W – includes two 4 GB DIMMs, one local SAS hard disk drive, and one AdvancedMC* card (25W maximum)
Environment	Ambient Temperature	Operating (normal): 5° C to 40° C (board intake temperature) Operating (short term): -5° C to 55° C -40° C to 70° C (-104° F to 158° F) Storage: -40° C to 70° C
	Airflow	Operating: 30 CFM per minute minimum
	Humidity	Operating: 15% to 90% non condensing at 55° C Storage: 5% to 95% non-condensing at 40°
	Vibration	Operating: 5 Hz to 100 Hz and back to 5 Hz @ 0.1Gs @ 0.1 octave/minute
	Shock, (unpackaged)	Non-operating: 50 G, 170 inches/second

		trapezoidal
Regulatory Compliance	NEBS	Demonstrated NEBS Level 3 compliance
	Safety	UL/cUL 60950-1 Safety for Information Technology Equipment E139761 EN/IEC 60950-1 Safety for Information Technology Equipment (CB Report and Certificate)
	Emissions	CISPR22: 1997 & 2003/EN55022:1998 & EN55022 A1:2000 & A2:2003 Class A EN 300 386 V1.3.2:2003FCC Rules CFR 47:2003 Part 15B Class A ICES-003, Issue 4 (CISPR 22:1997 & A2:2002) Class
	Hazardous Substances	Content meets requirements of EU RoHS Directive relying on exemptions for lead in solders for network infrastructure equipment for switching, signaling, transmission as well as network management for telecommunications (“Telecom”) and for lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages (“Flip Chip”). Products using Telecom exemption ONLY comply with the RoHS Directive if used in exempted applications. Products using Flip Chip exemption may be labeled as Pb-free-Second Level Interconnect
Storage	Type	Onboard storage controller with RAID 0/1support Support for onboard 2.5-inch Small Form Factor (SFF) Serial Attached SCSI (SAS) hard drive Redundant 128 MB flash drives Front panel SAS connector Support for SFF SAS hard drive on Rear Transition Module

Ordering Information

Information unavailable at this time.