

Evaluation PCIX-I Host Bus Adapter for RMI XLR™ Processor Family

Key Features

- Supports complete family of XLR™ processors
- Quad 10/100/1000 Base-T Ethernet Ports
- Full-duplex line rate transfer
- Copper Media Interface
- Line-rate, standards-compliant IPSEC and SSL acceleration
- 64-bit 133MHz PCI-X 1.0a system bus interface
- Backward compatible with 32/64-bit, 33/66MHz PCI
- 64/128/256/512MB of on-board DRAM memory
- Local or remote boot capable
- Comprehensive suite of software drivers targeting a variety of end user applications
- Full documentation and support available

RMI PCIX-I Evaluation Card



Advanced Features and Functionality

Supports complete XLR™ Processor Family with up to 32 vCPUs

- XLR532
- XLR516
- XR508

Leverages XLR™ Enhanced Processor Cores

- Enhanced 64-bit MIPS64® ISA with instruction set extensions
- Each core 4-way fine-grain multi-threaded
- Flexible thread scheduling

Network Acceleration Features

- Line speed Parser / Packet Director for deep packet inspection
- Supports IPv4 / IPv6
- TCP/IP Acceleration Hardware
- Layer 4-7 inspection / offload capable
- Packet Distribution Engine and order sequencing hardware per network interface

Security Acceleration

- Up to 10Gbps bulk encryption
- AES (128, 192, 256), DES/3DES, ARC4
- MD5, SHA-1, SHA-256 (All HMAC)

Network Connectivity

- Quad 10/100/1000 Base-T Ethernet
- IEEE 802.3, 802.3u, 802.3ab compliant
- IEEE 802.1Q VLAN Tagging, both insertion and removal
- 16K Jumbo Frame support
- Two Link/Activity LEDs per port

Main Memory - 64/128/256/512MB Options

- Industry standard DDR-II memory
- Single or dual controller supported
- x36 and x72 data path widths supported
- ECC fully supported for SBC and double bit non-correctable errors

Boot Memory

- Up to 32MB on-board Flash
- Full remote boot capability

Power Management

- On-Chip Thermal Sensor
- Software programmable clock throttling

PCIX-I Adapter Card for RMI XLR™ Processor Family

| Host Bus Interface Specifications | |
|--|---|
| Speed | 64-bit, 133MHz PCI-X |
| Voltage | 3.3V buses supported |
| Compliance | Conforms to PCI Local Bus Specification Rev. 2.2, PCI-X Specification 1.0a. PCI Bus Power Management Interface Specifications Rev. 1.1 |
| Security Acceleration Features | |
| Speed | Up to 10Gbps |
| Topology | Switched Gigabit Ethernet |
| Encryption | Advanced encryption standard (AES), triple data encryption standard (3DES) or ARC4 |
| Message Authentication | SHA-1, SHA-256, MD5 |
| User Authentication | Pre-shared key or certificate authentication |
| Compliance | RFC2401 - IP Security Architecture, RFC2402 - IP Authentication, RFC2403 - HMAC-MD5, RFC2404 - HMAC-SHA-1, RFC2405 - DES-CBC Cipher Algorithm, RFC2406 - IP Encryption, RFC2409 - IKE |
| Physical Specifications | |
| Ports | Four |
| Media | Copper, CAT 5 UTP |
| Form Factor | Short Card (6.875" x 4.200") |
| Bracket Size | Standard Size |
| Connectors | RJ45 |
| Power Consumption | Typical ~11.4W, Max ~23W XLR processor dependent figure - See your RMI sales representative for details |
| Environment and Equipment Specifications | |
| Airflow | 0 lf/m |
| Temperature | Operating: 0 C/32 F to 55 C/131 F. Storage: -20 C/-4 F to 70 C/158 F |
| Humidity | Relative (noncondensing): 10% to 90%, Storage: 5% to 95% |
| Cable | Category 5, 5e UTP (up to 100 meters) |
| Software | |
| Reference Driver Availability | Open Source Linux for all I/O (1GE, 10GE, Peripheral I/Os) OpenSSL Source Libraries (Security Acceleration Engine API, Fast Messaging Network) |
| Reference O/S Availability | Linux v2.4, Linux v2.6 |
| Operating System Support | Linux 2.6, MontaVista Linux, Wind River VxWork s |
| Ordering Information - Ships in Individually Packed Box with Standard Size Bracket | |
| RMI-PCIX1-XLR532 | Based on XLR 532 processor |
| RMI-PCIX1-XLR516 | Based on XLR 516 processor |
| RMI-PCIX1-XLR508 | Based on XLR 508 processor |

About RMI

Raza Microelectronics, Inc. (RMI®) is a fabless semiconductor company providing highly-integrated feature-rich products ranging from power-optimized System-on-a-Chip (SoC) solutions to High-Performance Processors for the Digital Consumer, Wireless, Networking and Security markets. RMI offers the most advanced and most complete MIPS-Based™ processing solutions with both 32/64-bit architectures supporting frequencies from 300MHz to 1.2GHz. The company is headquartered in Cupertino, CA with offices in Texas, India, Korea, Japan and China. More information about RMI can be found on the company's website at www.RazaMicro.com

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