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Find the *DSS Networks 5262-RJ* at our website: *Click HERE*

dss networks
The Gigabit Experts™

GIGMAC PMC
MODEL 5262

PRODUCT DATASHEET



Model 5262-LC

FEATURES

· 245 MB/port - 490+ MB/sec (3.92Gb) total
· Up to 1,000,000 frames per second max transfer rate
· IEEE 1386 64-Bit Compact PCI PMC Mezzanine Card
· High performance PCI compliant bus-master DMA engine design
· Available with OEM Developer Kit CD

DRIVER SUPPORT FOR

· VxWorks, Tornado II
· Windows 2000, Windows XP Embedded
· Linux kernel versions 2.4 including Embedded Linux

AVAILABLE MODELS

5262-LC - 2-port fiber with LC connector option
5262-RJ - 2-port copper with CAT5 RJ-45's

EMBEDDED APPLICATIONS

· Digital Video Transmission
· Packet Voice, VoIP
· Protocol and media converters
· Switches and edge routers
· Network security and monitoring
· Test equipment
· Military and medical systems
· Digital imaging products

PRODUCT DESCRIPTION

COMPACT PCI SERIES – HIGH PERFORMANCE
2-PORT GIGABIT ETHERNET CONTROLLER CARD

DSS Network's GigMAC PMC Model 5262 is a dual-port high performance gigabit ethernet fiber controller card for embedded applications in broadband telecommunication and data communications networks. Available in two model configurations, the fiber version provides two 1000 Base-X ports over singlemode or multimode fiber optics while the copper version provides two 1000 Base-T ports over CAT5 cabling. Both allow fully independent operation on both ports and are fully IEEE 802.3 compliant.

The model 5262's Compact PCI Mezzanine card design provides a drop-in daughter card solution allowing the addition of two Gigabit Ethernet ports per PMC site. Using a mezzanine card approach provides a simple space saving solution yielding maximum performance, scalability and flexibility.

The GigMAC PMC Model 5262 uses an advanced 4th generation, high-performance, low power Gigabit Ethernet chip from Intel. It has a 64-bit, 133/100/66 MHZ PCI bus interface interface and is capable of full speed bus-master DMA operations utilizing maximum PCI bandwidth. It typically operates in full-duplex mode, transferring frames at wire speed. Combined with our high-performance device drivers, it is capable of providing a total sustained throughput of 490 megabytes per second full duplex. As a PCI bus master, is operates on buffer descriptor lists, transferring Ethernet frames to and from main memory with low CPU management overhead. This mechanism yields maximum throughput while minimizing utilization of the host CPU.

Advanced features including TCP/UDP/IP checksum offload, jumbo frame support, priority queuing, VLAN support and busmaster descriptor list processing are implemented in silicon. These features coupled with advanced packet filtering and a powerful PCI DMA bus engine provide optimal performance while offloading the host processor.

DSS Networks is a direct manufacturer of Gigabit Ethernet solutions and we also develop our own high-performance device drivers for VxWorks, Linux and Windows XP Embedded. We have formed strategic partnerships with leading companies of Semiconductors and Embedded Systems technology so that we are able to provide robust, highly integrated solutions backed by industry-proven technology. We provide excellent customer service and technical support to our customers to help ensure your project using Gigabit Ethernet is a success.

The GigMAC PMC dual-port controller is an ideal solution for today's converged, bandwidth intensive, multi-protocol data and telecommunication networks. Applications include switches, edge routers, protocol and media gateways, digital video transmission, packet voice, network security and monitoring, test equipment, military and medical systems and digital imaging products.

The GigMAC PMC Model 5262 is available with an OEM developer kit CD containing VxWorks and Linux sample code, utilities, release notes, user manuals, integration guide and datasheets.

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GIGMAC PMC
MODEL 5262

COMPACT PCI SERIES – HIGH PERFORMANCE
2-PORT GIGABIT ETHERNET CONTROLLER CARD

PRODUCT DATASHEET

SPECIFICATIONS

· IEEE 1386 64-bit PMC Mezzanine Card
· IEEE 802.3 compliant & PCI Rev 2.2 compliant
· Dual port fiber and copper interface options
· Supports 10/100/1000 Base T auto negotiation (copper)
· Supports 1000 Base X auto negotiation (fiber)
· 133/100/66/33 MHZ PCI-X bus speed
· 64 or 32-bit PCI data transfers
· Onboard 850nm MM LC or 1310nm SM LC connectors
· Four multi-function LEDS per port
· Extended status and statistics
· Supports 5V/3.3V bus power and I/O signaling
· Power specification: 3.8W at 3.3V
· Certifications: FCC Class 15; Part B, EN5502 (pending)

SYSTEM CONFIGURATION AND PERFORMANCE

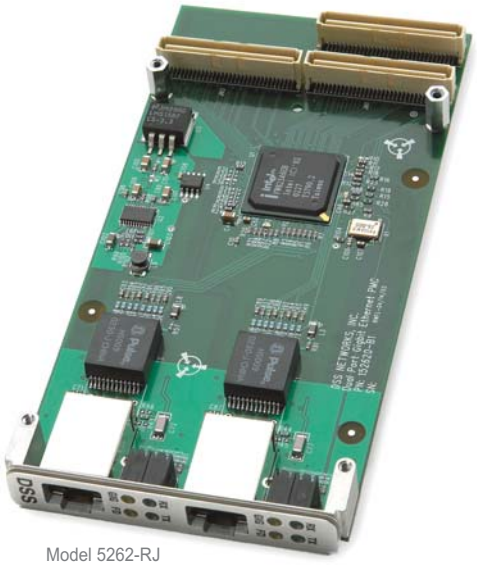
· High performance bus-master intelligent DMA engine
· 490+ MB/sec (3.92Gb) sustained throughput (245 MB/port)
· Up to 1,000,000 frames per second transfer rate
· Efficient buffer descriptor linked list design
· DMA directly to/from host buffers, no buffer copy
· Buffer descriptor bursting and caching
· Supports extended frame sizes to 16K
· Supports programmed interrupt latency
· Supports VLAN tagging and filtering
· Advanced packet filtering options
· 4096-entry multicast table
· 16-entry exact match MAC address table
· TCP/UDP/IP checksum offload support
· TCP/IP segmentation offload support
· Provides extended status, statistics (SNMP, RMON)
· Independent simultaneous operation on both ports

COMMUNICATIONS HARDWARE

· Intel 82546 10/100/1000 dual-port PCI-X controller
· Internal dual-port fiber Serdes
· Integrated gigabit phy transceivers
· Internal 128-bit architecture
· Large internal FIFOS, 64KB transmit, 64KB receive
· Advanced APM & ACPI power management features
· Powerful PCI bus-master intelligent DMA engine design
· Fast back-to-back and burst transfer modes
· Low power, 1.5V and 2.5V design
· 850nm multimode LC connectors (std. fiber model)
· Fully shielded recessed CAT5 RJ-45 connectors (std. copper model)
· Optional 1310nm singlemode LC connectors (fiber model)
· 4 multi-function LEDS per port
· 14-programmable LED output options
· Big or little endian support
· Highly integrated, low chip count

SOFTWARE DRIVER SUPPORT

· Tornado 2.0, 2.2, VxWorks 5.4, 5.5
· Linux versions 2.2 and 2.4, Embedded Linux
· MontaVista Embedded Linux
· Multiple Card Support
· Statistics and Status Interfaces



Model 5262-RJ

PARTNERS

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MONTAVISTA PARTNER

PCI INDUSTRIAL PICMG COMPUTERS

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Specifications are subject to change without notice. Please contact DSS Networks for full technical specifications, ordering details, or check out our website at **www.dssnetworks.com**

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