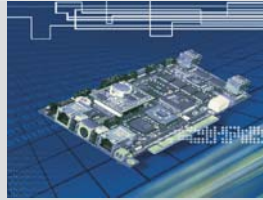


GW440GX 64 Bit PCI Card



Data Sheet

Version 1.0

Description

The GW440GX PCI Card is designed for applications in which Gigabit Ethernet data streams have to be high-volume, parallel-processed at full-line speed. This is achieved by combining an FPGA working directly in the data path which is responsible for payload pre-filtering, encryption, compression etc., and a high performance PowerPC for protocol handling.

Well-known security features like that of smart cards are allowing operation in sensitive areas and protecting copyrights of application-specific software.

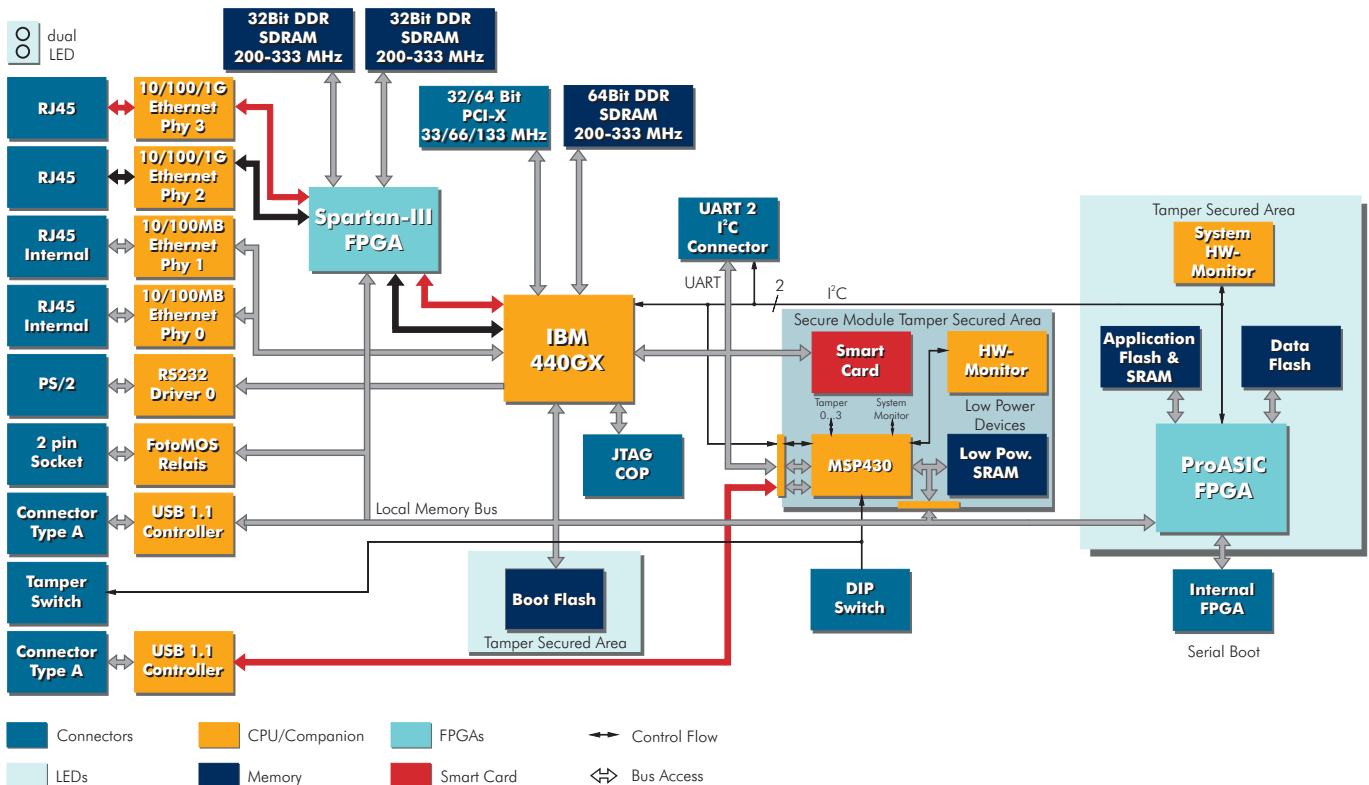
Specification

PowerPC IBM440 GX up to 800 MHz
 PCI 2.2 with 32/64-Bit data bus and 33/66 MHz clock, or
 PCIX 1.0 with 64-Bit data bus and

66/100/133 MHz
 2 x 1 GBit/s Ethernet ports with enhanced Layer 1 capabilities, electrical or optional optical ports
 up to four 10/100 MBit/s Ethernet ports
 64-Bit DDR SDRAM up to 512 MByte
 Flash up to 320 MByte, in System programmable
 FPGA XILINX Spartan-III up to 1.500.000 ASIC-Gates, SRAM technology and DSP Functions
 FPGA Actel ProASIC up to 1.000.000 ASIC-Gates, Flash technology
 Battery buffered SRAM
 Tamper and Secure area with user specific assembly options
 2 x PhotoMOS Relais outputs
 2 x USB V1.1
 3 x RS232
 2 x I²C

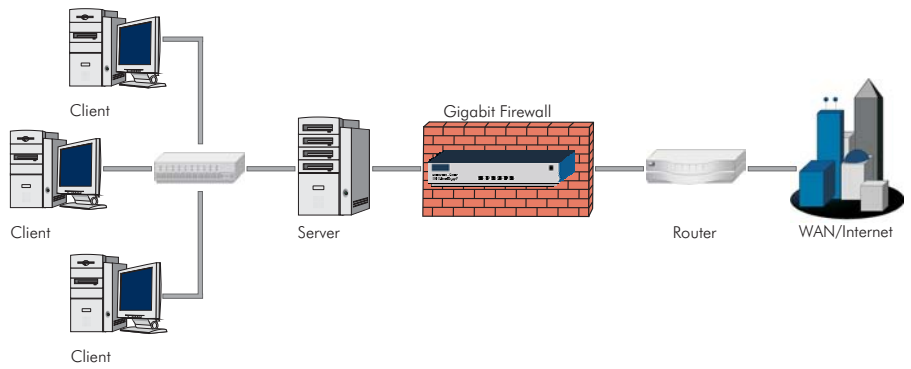
Features

Gigabit data manipulation at full line speed independent of packet size
 HW-Acceleration of mathematical or multiprocessing SW-algorithms by FPGA co-processing
 Manipulation, Virus and Design Protection by encrypted, signed and monitored Code
 Extensive System monitoring preventing access to sensitive Data, also functions in stand-by modus
 Stand alone operation without PCI-Bus possible
 FPGA application interface for user specific Modules (IP-Cores)
 Operating systems VxWorks (Wind River) and Linux
 Certification based on German BSI guidelines in progress

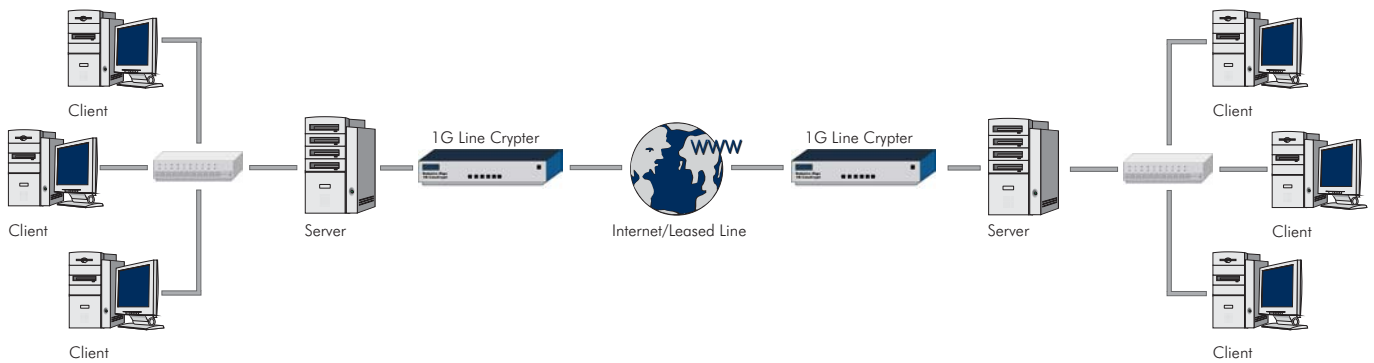


Applications

- Accelerator board for Firewalls, VPN Gateways and Gigabit Encryption Systems
- Gigabit measurement systems (Protocol analysis Layer 1 - 7)
- Hard disk (RAID) encryption for Servers.
- Intrusions-Detection-Systems with analysis in HW
- Picture processing (compression, filtering etc.)
- Video conference encryption
- Evaluation board for PowerPC IBM440GX, Xilinx and Actel FPGAs
- In combination with additional PCI-Boards expandable to powerful Gateway/Router for ISDN, ADSL, GPRS, UMTS and other standards



Application GW440GX PCI Card as a Firewall



Application GW 440GX PCI Card as a Gigabit Crypt System

GateWare 440 PCI Card IBM PowerPC 440 GX 32 Bit RISC Microcontroller	Revision Number GW440GX 533 M2 12S (B) F450 S1500 C	Temperature Range I Industrial C Commercial
Microcontroller GX IBM PowerPC 440 GX		Spartan-III FPGA Size 400 400 K Gates 1000 1000 K Gates 1500 1500 K Gates
CPU Core Frequency 533 533 MHz 667 667 MHz 800 800 MHz		ProASIC FPGA Size 150 150 K Gates 300 300 K Gates 450 450 K Gates 600 600 K Gates
DDR SDRAM Size 1 128 Mbyte 2 256 Mbyte 3 512 Mbyte		Security Enhancement S With Security Module N No Security Module
Application Flash Size 1 16 Mbyte 2 32 Mbyte 3 64 Mbyte	Data Flash Size 1 64 Mbyte 2 128 Mbyte 3 256 Mbyte	

The GW440GX PCI Card can be used as an accelerator board in firewall and intrusion detection systems (IDS) with at least one free PCI slot. It can be used with any mainboard operating system, due to the HW being encapsulated by a hardware abstraction layer (HAL).

The GW440GX PCI Card can also be obtained in an enclosed 19" rack case with a passive PCI backplane and a power module for various user-specific applications.

GW440GX PCI Motherboard Ordering Information

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