



WANic™ 3850 Packet Processor

Intelligent High-performance 4-Port Gigabit Ethernet Packet Processor PCI-X Card

Features

Interface Support

- Supports intelligent high-performance Cavium OCTEON 12 core 500 MHz CN3850-SCP (Secure Communications Processor)
- Up to 4 Gbyte of high-speed DDR2 packet memory via mini-RDIMMs
- 4 front panel access ports of Gigabit Ethernet (GbE)
- Copper or fiber SFP line interface ports
- PCI/PCI-X connector

PCI-SIG Compliance/Form Factor

- PCI-SIG PCI-X 64bit/133 MHz 1.0b compliant for control and data plane
- PCI R3.0

Software Support

- Support available for:
 - Popular Debian Linux®
 - Embedded boot loader and diagnostics (POST)

Applications

- Session Border Controller (SBC)
- Secure Access (e.g. IPsec)
- Network Address Translation (NAT)
- Traffic Management
- Firewall

Product Reliability

- Reliability calculated via Telcordia SR-332 Issue 1
- Technical support for OEM customers and resellers

WANic 3850 is an intelligent high-performance Packet Processor based on the high-performance OCTEON multi-core processor. Ideal for applications demanding wire-speed communications for secure IP access, the WANic 3850 card is designed to enable rapid application development using open, modular, highly available systems based on PCI-X platform architectures.

WANic 3850 provides a 12-core Cavium OCTEON multi-core CN3850-SCP Secure Communications Processor with 1 Mbyte of shared L2 cache memory, delivering up to 4 Gbit/s line-speed packet processing for layers 2-7. To optimize application performance, the CN38xx-SCP supports a dual-issue, five-stage pipeline and optimized latencies as well as auto instruction pre-fetching and advanced data pre-fetching features to minimize memory delays.

The packet processor card can be configured to enable a wide variety of applications. Up to 4 Gbyte of high-speed low-power/low-latency DDR2 memory is implemented using mini-RDIMM modules.

WANic 3850 supports high-speed communications via a 64-bit/133 MHz PCI-X bus interface for PCI-X platforms. It is keyed for 3 volts to ensure safe operation and compatible voltage.

For application flexibility, the WANic 3850 supports multiple front panel configuration options including:

- 4 front panel ports of Gigabit Ethernet supporting IEEE 1000BaseT via Small Form factor Pluggable (SFP) transceivers, or

- 4 front panel ports of Gigabit Ethernet supporting IEEE 1000BaseSX via Small Form factor Pluggable (SFP) transceivers

Software

The WANic 3850 software implementation is a comprehensive development package designed to improve time-to-revenue for our customers. This software development package is optimized to simplify application integration for multi-core processor development environments.

At its lowest level, the WANic 3850 software includes Universal Boot loader (U-Boot) and comprehensive Power on Self Test (POST) embedded in the hardware.

A Linux Support Package (LSP) and sample application code designed to exercise the WANic 3850 is provided to aid in application development. The LSP includes a Linux Operating System and user application diagnostics. It loads user application code from a TFTP server or Flash memory, and includes a well-defined Application Program Interface (API) to ease application development. Other operating systems are available upon request.

To further improve customer time-to-market, optional software modules such as an IPv4/IPv6 stack, IPsec, QoS management, multicast forwarding, IP filtering, VLAN, L2 tunneling and application programming frameworks will be available from GE Intelligent Platforms and/or its partners.



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Specifications

Processor

- OCTEON CN3850-SCP, 12-core 500 MHz

Memory

- Up to 4 Gbyte of DDR2 SDRAM via mini-RDIMMs
- Up to 128 Mbyte flash memory

Front-Panel

- 4 x 1 GbE via SFPs
- Status LEDs

Bus Interconnect

- PCI/PCI-X

Network Interface

- 4 x 1 GbE MAC/PHY

PCI-SIG Compliance

- PCI-SIG PCI-X 64-bit 133 MHz 1.0b compliant for control and data plane

Dimensions

- Form factor: PCI R 3.0 dual slot card
- Dimensions: 4.2 inches (H) x 6.6 inches (W)
- Weight: 0.612 lbs. (277.598 g)

Power Requirements

- +12.0 VDC and +3.3V DC
- Less than 40 watts

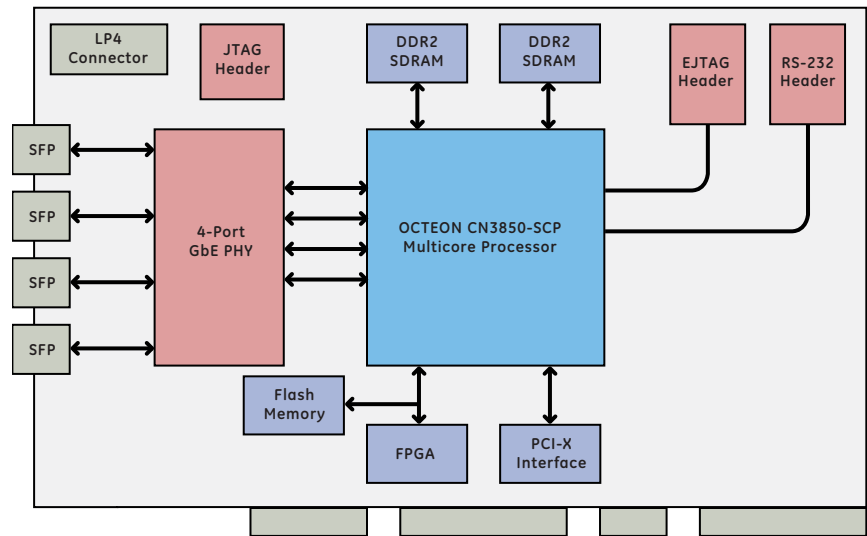
Environmental

- Temperature
 - Operating: 0° to +55°C
 - Storage: -40° to +85°C
- Relative Humidity
 - Operating: 5% to 95%, noncondensing
 - Storage: 5% to 95%, noncondensing

Regulatory Compliance

- CE Mark
- Emissions
 - FCC 47CFR Part 15 Class A (USA)
 - EN55022: 1998/A1:2000/A2:2003 Class A ITE (EU)
 - VCCI Class A ITE (Canada)
 - AS/NZ CISPR 22:2002
 - AS/NZ CISPR 22:2002 Class A (Aus. New Zealand)
 - ICES-003 Issue 3 Class A (Canada)
 - VCCI Class A ITE
- Immunity
 - EN55024:1998/A1:2001/A2:2003 (EU)
- Safety
 - UL60950-1 (USA)
 - CSA 22.1 no. 60950-1-03 (Canada)
 - EN 60950-1 (EU)
- RoHS 2002/95/EC compliant

Block Diagram



Ordering Information

84020-101 WANic 3850-1T with 12-core CN3850-SCP @ 500MHz; 1 Gbyte DDR2; twisted pair ports (SFPs)

84020-102 WANic 3850-1SR1 with 12-core CN3850-SCP @ 500MHz; 1 Gbyte DDR2; short range fiber ports (SFP)

Ask your GE Intelligent Platforms sales person for additional models.

About GE Intelligent Platforms

GE Intelligent Platforms, a General Electric Company (NYSE: GE), is an experienced high-performance technology company and a global provider of hardware, software, services, and expertise in automation and embedded computing. We offer a unique foundation of agile, advanced and ultra-reliable technology that provides customers a sustainable advantage in the industries they serve, including energy, water, consumer packaged goods, government and defense, and telecommunications. GE Intelligent Platforms is a worldwide company headquartered in Charlottesville, VA and is part of GE Home and Business Solutions. For more information, visit www.ge-ip.com.

GE Intelligent Platforms Contact Information

Americas: **1 800 433 2682** or **1 434 978 5100**

Global regional phone numbers are listed by location on our web site at www.ge-ip.com/contact

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