

WANic™ 5860 Packet Processor

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

Features

Interface Support

- Supports the high-performance Cavium OCTEON Plus™ 16-core, 600 MHz CN5860-NSP processor
- Up to 4 GB of high-speed DDR2 SDRAM packet memory via VLP mini-RDIMMs
- Up to 256 MBs of RLDAM2 optional
- Four front panel access ports of GbE
- Copper or fiber SFP ports
- PCI-X host interface

Compliance

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

Software Support Available

- Popular Debian Linux®
- Embedded boot loader and diagnostics (POST)

Applications

- Session Border Controller (SBC)
- Secure Access (IPsec)
- Network Address Translation (NAT)
- Traffic Management
- Firewall
- Deep Packet Inspection

Product Reliability

- Reliability calculated via Telcordia SR332 Issue 1
- Technical support for OEM customers and resellers

The WANic™ 5860 is a high-performance Packet Processor based on the OCTEON Plus™ multi-core processor. Ideal for applications demanding wire-speed communications for secure IP access, the WANic 5860 card is designed to enable rapid application development using open, modular, highly available systems based on PCI-X platform architectures.

The WANic 5860 provides a 16-core Cavium OCTEON Plus™ multi-core CN5860-NSP Network Services Processor with 2 MBs of shared L2 cache memory, delivering up to 4 Gb/s line-speed packet processing for Layers 2-7. To optimize application performance, the CN5860-NSP 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 GB of high-speed DDR2 memory is implemented using VLP mini-RDIMM modules. Up to 256 MB of RLDAM2 can also be configured.

WANic 5860 supports high-speed communications via a 64-bit/133 MHz PCI-X bus host interface for PCI-X platforms. It is keyed for 3 volts to ensure safe operation and compatible voltage.

For application flexibility, the WANic 5860 supports either:

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

Software

The WANic 5860 software implementation is a comprehensive development package designed to improve time-to-revenue. It is optimized to simplify application integration for multi-core processor development environments.

The WANic 5860 software includes a Universal Boot loader (U-Boot) and comprehensive Power On Self Test (POST) firmware embedded in the hardware.

A Linux® Support Package (LSP) and sample application code designed to exercise the WANic 5860 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 local Flash memory, and includes a well-defined Application Program Interface (API) to ease application development. Support for other operating systems is 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 Fanuc and/or its partners.



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Specifications

Processor

- OCTEON Plus™ CN5860-NSP, 16-core 600 MHz

Memory

- Up to 4 GB of DDR2 SDRAM via VLP mini-RDIMMs
- Up to 128 MB Flash memory
- Up to 256 MB of RDRAM2 (optional)

Front-Panel

- 4x1 GbE via SFPs
- Status LEDs

Bus Interconnect

- PCI-X host interface

Network Interface

- 4x1 GbE PHY

PCI-SIG Compliance

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

Dimensions

- Form Factor: PCI standard height, half length
- Dimensions: (H) 4.2 inches (10.67cm) x (W) 6.6 inches (16.76cm)
- Weight: 0.612 lbs. (277.598g)

Power Requirements

- +12.0 Vdc and +5 Vdc
- Less than 40 watts

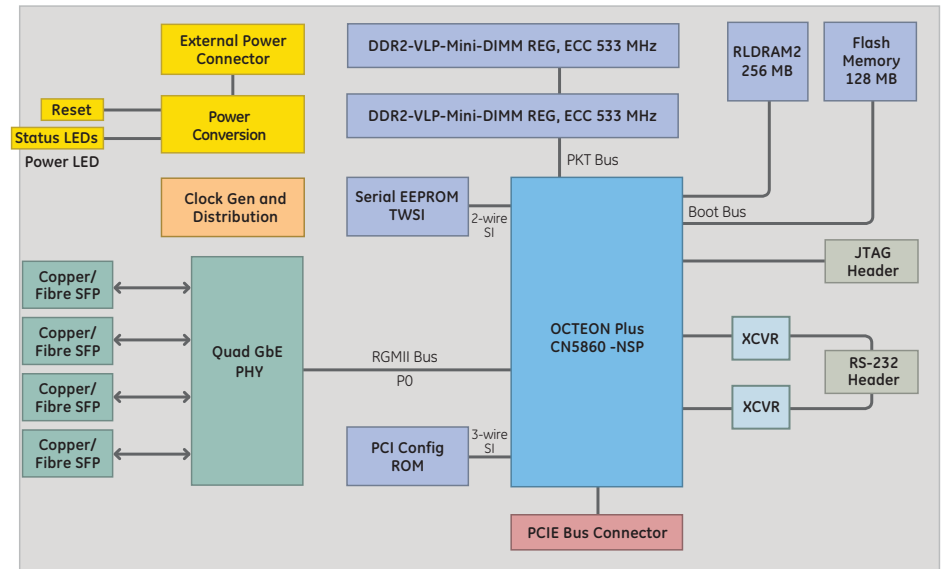
Environmental

- 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

84020-206	WANic 5860N-2RT with 16-core CN5860-NSP @ 600 MHz; 2 GB DDR2; 256 MB RDRAM2; 1000BaseT twisted pair SFPs
84020-207	WANic 5860N-2RSX with 16-core CN5860-NSP @ 600 MHz; 2 GB DDR2; 256 MB RDRAM2; 1000BaseSX fiber SFPs
84020-103	Serial Adapter Cable Kit
800407	WANic 5860 Software and Manual

Ask your GE Fanuc Intelligent Platforms sales person for additional models.

About GE Fanuc Intelligent Platforms Embedded Systems

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GE Fanuc Intelligent Platforms Information Centers

Americas:
1 800 322 3616 or 1 256 880 0444

Asia Pacific:
+81 3 5544 3973

EMEA:
Germany: +49 821 5034-0
UK: + 44 1327 359444

Additional Resources

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