OVERVIEW

A PCIe Gen2.0 Smart Network Accelerator supporting Dual 10GE ports. The board incorporates the best-in-class Cavium OCTEON® II CN6645 processor and bypass technology.

To provide maximum network availability, the board has built-in circuitry and logic that allows network traffic to bypass the appliance in cases of failure, firmware and software upgrades, or malicious attacks.

The smart Network Accelerator's primary purpose is to offload x86 server processors to maintain data throughput and enhance efficiency. The board can be used as an offload engine for deep packet inspection and analysis, content inspection and protection, and crypto engine to accelerate SSL and IPsec

The board incorporates the Rhino Health Monitoring (RHM) tool, providing continuous monitoring of CPU cores, board peripherals, and host processor via heartbeats, voltage, and temperature checkpoints.

KEY BENEFITS

Rhino's Health Management (RHM) Tool

Proprietary onboard circuitry and logic providing programmable board and CPU Health Monitoring and Failure Management to ensure optimal network operation and availability

Bypass Technology

Auto-detection and hot-plug between 10GE and 1GE SFP+/SFP interfaces

Cavium OCTEON II 6645 Processor

Cavium OCTEON family of Multi-Core MIPS64 processors is the industry's most scalable, highest-performance, and lowest-power solution for intelligent networking applications ranging from 100Mbps to 100Gbps

Made in The U.S.A

Rhino products are designed and manufactured locally at our facility in the Silicon Valley, California

FEATURES

Combines cutting-edge Cavium OCTEON II CN6645 along with all required memories, dual 10GE ports with bypass, power distribution, clock, and reset circuitry.

- 10 MIPS64 cores @1.2GHz
- Dual banks of On board 4/8/16 GB DDR3 with ECC memory
- 8MB NOR parallel Flash
- Onboard interfaces:
  - Quad 1GE copper ports
  - One USB2.0 host
  - PCIe x 4 lanes
  - One RS232 port via RJ45
  - 1GE management port
  - EJTAG for easy debug
- Built-in circuitry to bypass network traffic in the event of power failure or when software chooses to disconnect from the network traffic. This features allows maximum Network availability
- Rhino Health Monitoring (RHM) Tool
  - Continuous monitoring of CPU cores, board peripherals, and host processor via heartbeats, voltage, and temperature checkpoints
  - Programmatic health alerts and failure points
  - Hold-on power (up to 150msec) feature for failure response and Onboard Failure Logging (OBFL)
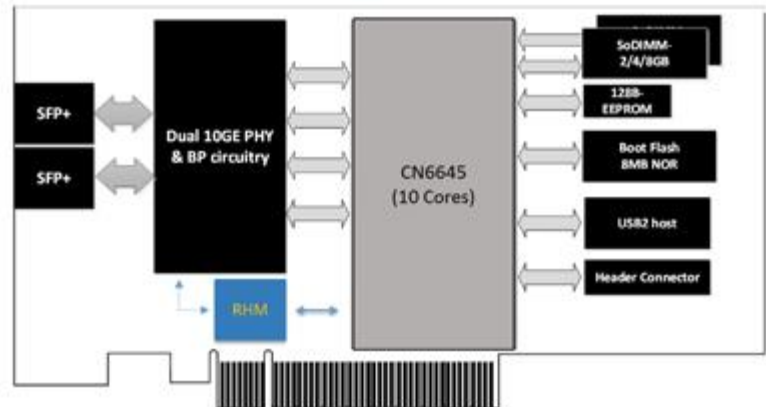
SOFTWARE

➢ Rhino U-boot
➢ Linux SDK

Part Ordering

RL-PCIE-BYPASS-6645-2x10GE

ABOUT RHINO LABS

Rhino Labs Inc. is a leading provider of high-performance networking and data infrastructure solutions.

Our products are used by a growing base of OEM customers in applications focused on Cyber Security, Network Monitoring and Traffic Management. Our standard and customized products include Intelligent Bypass NICs, Smart NICs, and a variety of network, security, and storage appliances.

We are a privately held company headquartered in Santa Clara, CA with a local engineering and manufacturing facility and a high volume manufacturing facility in Malaysia.