



Smart NIC 7890 Quad 10GE/1GE

RL-PCIE-7890-4x10GE/1GE

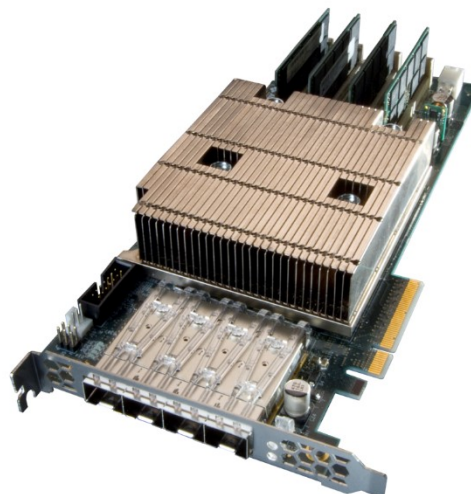
Product Brief

OVERVIEW

A PCIe Gen3.0 Smart Network Accelerator supporting hot-plugging between quad 1GE and 10GE SFP+/SFP interfaces. The board incorporates the state of the art Cavium OCTEON® III 7890 processor.

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



10GE/1GE Hot-plug

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



Cavium OCTEON III 7890 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



Enhanced Memory

Quad Channels of up to 32 GB DDR3 with ECC at 1333MHz



Made in The U.S.A

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



Smart NIC 7890 Quad 10GE/1GE

RL-PCIE-7890-4x10GE/1GE

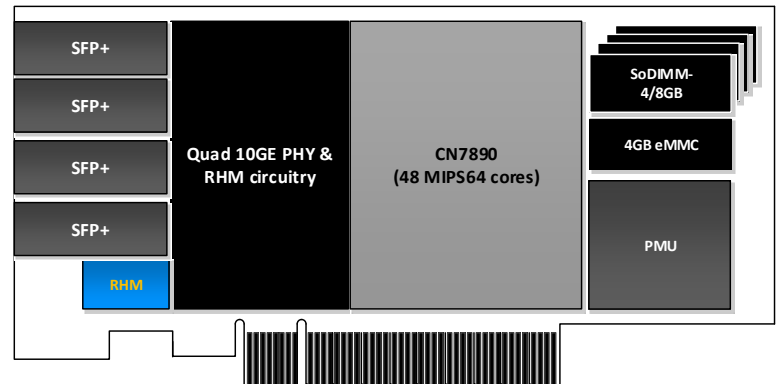
Product Brief

FEATURES

Combines Cavium OCTEON III CN7890 along with all memories, quad 10GE ports, Rhino Health Monitoring (RHM), power distribution, clock, and reset circuitry

- 48 MIPS64 cores @2.5GHz
- Quad Channels of 4 or 8 GB DDR3 with ECC at 1333MHz
- 4GB eMMC device
- Onboard interfaces:
 - ⇒ Quad 10GE optical interfaces
 - ⇒ One USB2.0 host
 - ⇒ PCIe Gen 3.0 x 8 lanes
- Typical Power Consumption:
 - ⇒ Less than 90W with 48 core device running at 1.6GHz
- Mechanical Size: L=12.283" x H=4.376 inc (full height)
- 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)

BLOCK DIAGRAM



SOFTWARE

- Rhino U-boot
- Linux SDK

Part Ordering

RL-PCIE-7890-4x10GE

PCIe Gen3.0 Smart NIC incorporating 48-MIPS64 CPUs, AAP, 2.5GHz, 4x 8GB DDR3 with ECC, 4GB eMMC, 4x10GE fiber ports

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.