

Tahoe 8850 Product Brief

ADVANCE INFORMATION

Marvell® CN106xx OCTEON TX2® ARM-Based Networking Appliance

PRODUCT IN DEVELOPMENT

Marvell SDK (with integrated DPDK) Supported on Multiple Linux Distributions

Interface Masters

TECHNOLOGIES

Innovative Network Solutions

OVERVIEW

Interface Masters Technologies presents Tahoe 8850, a highly-flexible 1U networking appliance designed for enterprise installations. The appliance is based on Marvell's game-changing 5nm OCTEON TX2 CN106x ARM-64 multicore processor and supports an optional factory-installed 'special function' module. The optional factory-installed module can be configured with either a high-performance Intel® offload processing module or any off-the-shelf PCIe x16 network card including advanced NVIDIA® or AMD® GPUs (device is thermally validated using industry-leading ANSYS® thermal simulation). Device includes full certifications: UL, cUL, and CB 62368-1.

Our software differentiator - Interface Masters provides support for the Marvell SDK with integrated DPDK on multiple Linux distributions. Additional software and firmware enables rapid application development. We also provide readily available software support for long-term QLM.

Target applications include any appliance benefiting from comprehensive hardware accelerators including an integrated hardware ML/AI acceleration engine, hardware based VPP accelerator, integrated 1Tb switch, true inline crypto, programmable packet processors, secure boot, physically unclonable function and PCIe DMA acceleration.



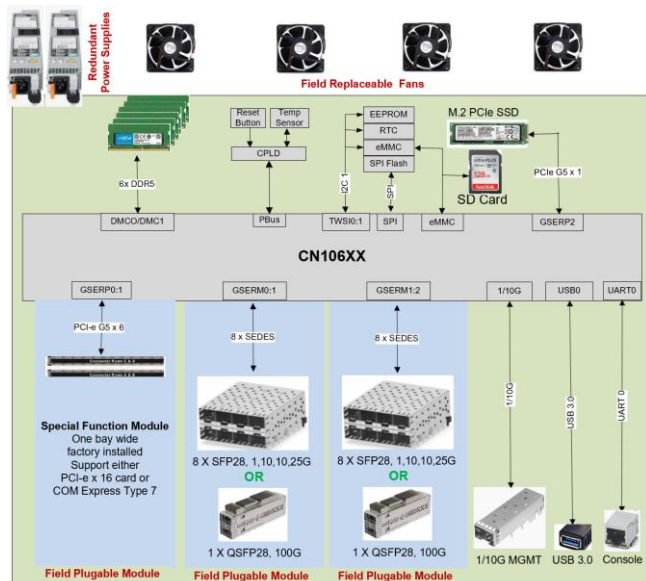
Tahoe 8850 (Product in Development)

ARM Subsystem

- Marvell CN106xx OCTEON TX2 processor (complete CN106xx family, 24 cores)
- 120G Crypto
- 135G Ethernet Throughput
- Two (2) QSFP28 100G ports
- Sixteen (16) SFP28 10/25G ports
- Front-facing USB 3.0
- Dedicated console and management ports
- Six Channels of DDR5 at 5,200 MT/s
- One M.2 PCIe Gen4 SSD
- One SD card
- Four PCIe
- eMMC memory
- SPI Flash
- RTC
- Supports for 3rd party PCI-e cards and GPUs
- Redundant hot swap power supplies
- Four field-replaceable fans
- Strategically placed temperature sensors for managing thresholds and alerts
- Integrated crypto and ML/AI acceleration engines.

Optional X86 Subsystem

- Xeon D 1500 Series up to 16 cores
- Four 10G ports
- Four 100/1000 copper ports
- One Console port
- One 100/1000 MGMT port
- Three SODIMM DDR4 at 2,400 MT/s



Block Diagram – Assembly Option A

ENVIRONMENTAL	
Operating Temperature	-5° to + 45°C (23°F to 113°F)
Operating Humidity	5 to 95%, non-condensing

Appliances DIMENSIONS		
	Inches	Millimeter
Length	18	457.2
Height	1.75	44.45
Width	16.80	426.72

PRELIMINARY POWER CONSUMPTION	
Typical	Maximum
220W	530W (w/GPU)

ORDERING INFORMATION	
Part Number	Description
Tahoe 8850-CN103X-2500	Tahoe 8850 with Marvell OCTEON TX2 CN106xx Six Channels of DDR4 at 3,200 MT/s One M.2 PCI-e Gen 4 SSD No Optics Two 550W Power Supplies Four fans
Optional Module	Sixteen SFP28 10/25G ports One QSFP28 PCIe x 16 (Support off-the-shelf GPUs)

CUSTOMIZATION SERVICES

Hardware, Firmware, Linux O/S and application code development services available.



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Rev D

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