# Tahoe 8850 Product Brief

Marvell® CN106 OCTEON 10 DPU ARM-Based Networking Appliance

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

***ADVANCE INFORMATION***

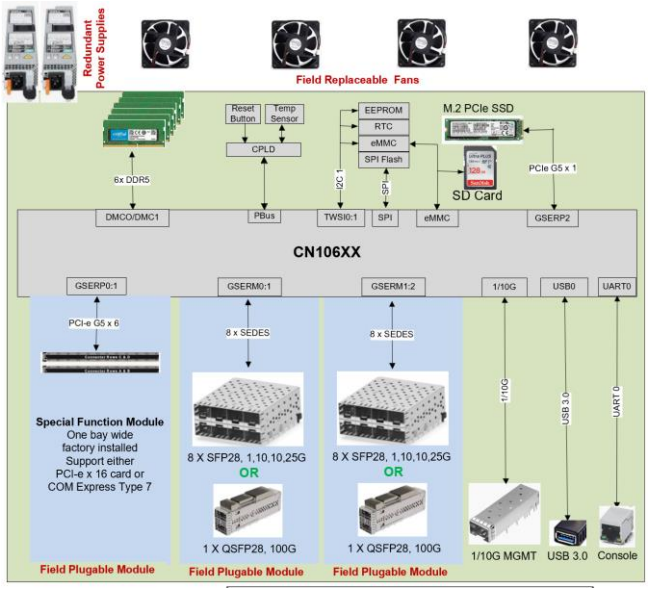
***PRODUCT IN DEVELOPMENT***

## 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 10 DPU CN106 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.




***Block Diagram – Assembly Option A***


***Tahoe 8850 (Product in Development)***

## ARM Subsystem

- Marvell CN106 OCTEON 10 DPU (complete CN106 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

| ENVIRONMENTAL | |
|---|---|
| Operating Temperature | -5º to + 45ºC (23ºF to 113ºF) |
| 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<br>(w/GPU) |

| ORDERING INFORMATION | |
|---|---|
| **Part Number** | **Description** |
| Tahoe 8850-CN103X-2500 | Tahoe 8850 with Marvell OCTEON 10<br>DPU CN106<br>Six Channels of DDR4 at 3,200 MT/s<br>One M.2 PCI-e Gen 4 SSD<br>No Optics<br>Two 550W Power Supplies<br>Four fans |
| Optional Module | Sixteen SFP28 10/25G ports<br>One QSFP28<br>PCIe x 16 (Support off-the-shelf GPUs) |

## CUSTOMIZATION SERVICES

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

## ABOUT INTERFACE MASTERS TECHNOLOGIES, INC.

Interface Masters Technologies is a leading provider of high-speed networking solutions focused on 1/10/25/40/100/200/400 Gigabit Ethernet networking solutions. For 28 years Interface Masters Technologies has been providing innovative networking solutions with customization services to OEMs, large enterprises and sophisticated end users. Interface Masters Technologies provides Ethernet switches, appliances, server adapter cards with high port density, networking offload and bypass functionality. Company headquarters are in Fremont, CA with satellite offices in Hong Kong and Europe.



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