Nephos NPS4806

720G ToR Switch

April 4, 2016

Highlight

ToR 720G Switch configuration

- 48 x SFP+ to support 1GbE or 10GbE,
- 6 x QSFP support 40GbE or 4 x 10GbE

- MediaTek/Nephos Aries MT3258 Silicon

- Intel Atom C2538 2.4GHz, 3.0V
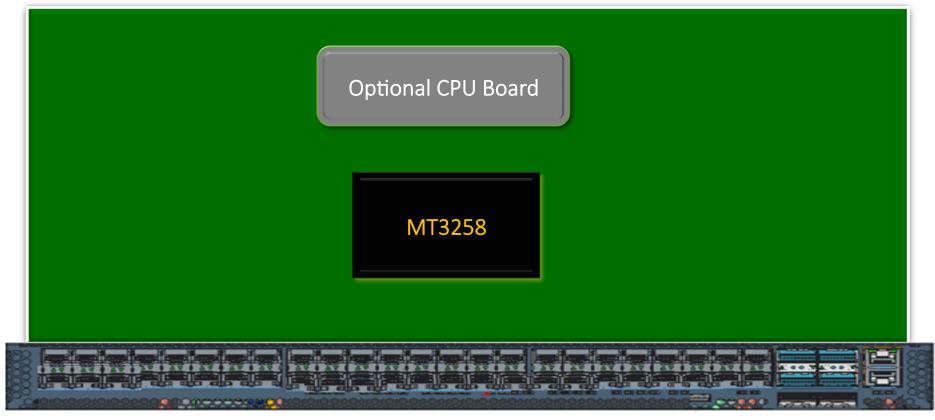
- ONIE Support

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Key Features

- Cost-effective, bare-metal switch infrastructure for data center fabric.

- 48 x SFP+ switch ports, supporting 10GbE (DAC, 10GBASE-SR/LR) or 1GbE (1000BASE-T/SX/LX).

- 6 x 40 QSFP switch ports, each supporting 40GbE (DAC, 40GBASE-SR4/LR4) or 4 x 10GbE (DAC or fiber breakout cable).

- Full line-rate Layer 2 or Layer 3 forwarding of 1.44 Tbps.

- Flexible operation mode support: legacy/SDN mode and Hybrid mode

- Support VM Switching, VXLAN and NVGRE tunneling support in hardware for network virtualization.

- Rack mountable in standard 19" racks. Mountable in 21" Open Rack with the Open Rack Switch Adapter.

- Supports hot/cold aisle with port-to-power and power-to-port airflow SKUs.

- All ports on front; PSUs, fan tray on rear.

- Hot-swappable, load sharing, redundant AC or -48 VDC PSUs. 12 VDC power input option.

- Hot swappable 4+1 redundant fans.

- Management: Ethernet and console RJ-45 ports; USB storage port.
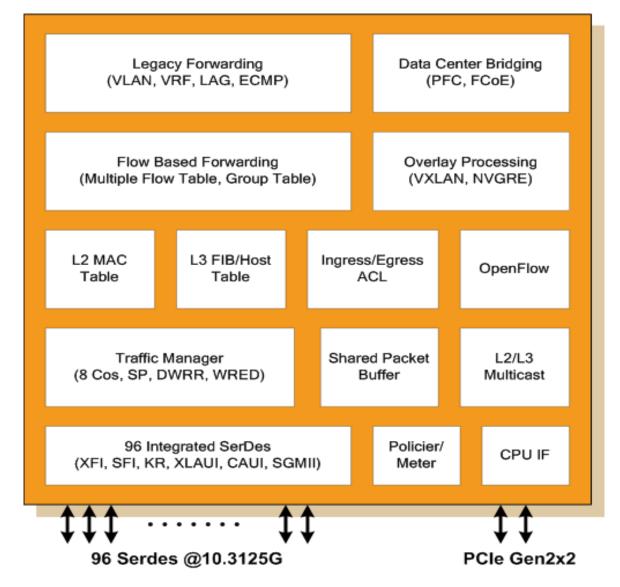
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NPS4806 Reference Design

Optional CPU Board

MT3258

48 Ports 10G SFP+   6 Ports 40G QSFP+
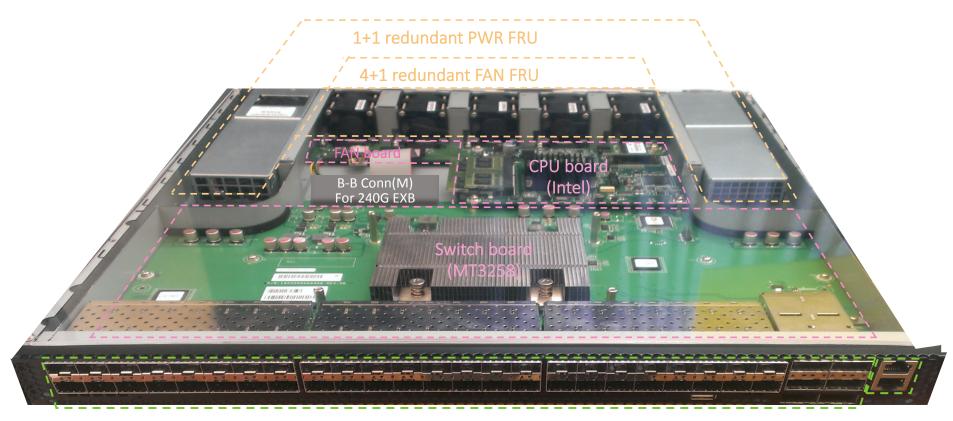
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MT3258 Overview

- 960Gbps Switching Capacity

- 1.44BPPS with 64B Frame Size

- 96 High Speed SerDes with 96 port slices

- 1GbE, 10GbE, 40GbE, 100GbE

- Cut-through/Store Forward

- Hybrid Switch Support
  - L2/L3 Forwarding
  - Flow Based

Chassis View

1+1 redundant PWR FRU

4+1 redundant FAN FRU

FAN board

CPU board (Intel)

B-B Conn(M) For 240G EXB

Switch board (MT3258)

48* 10G (SFP+) with 6*40G (QSFP+)
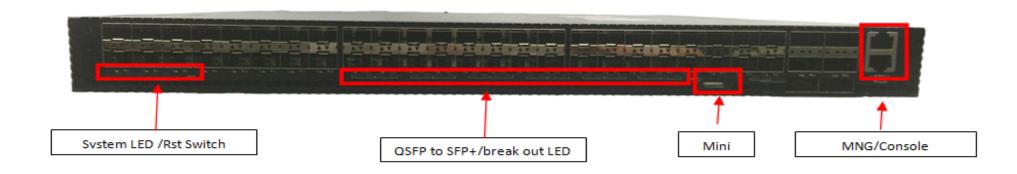
1* Console with
1* management

Physical and Environment

- Dimensions (WxDxH): 443 x 473 x 43.4 mm (17.4 x 18.6 x 1.71 in)
- Weight: 8.5 kg (18.74 lb)
  - with two installed PSU modules Fans: hot-swappable 4+1 redundant fans

- Operating Temperature: 0°C to 40°C (32°F to 104°F)
- Storage Temperature: -40°C to 70°C (-40°F to 158°F)
- Operating Humidity: 5% to 95% non-condensing

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Front View

Forty Eight SFP+ Ports

Six QSFP+ ports
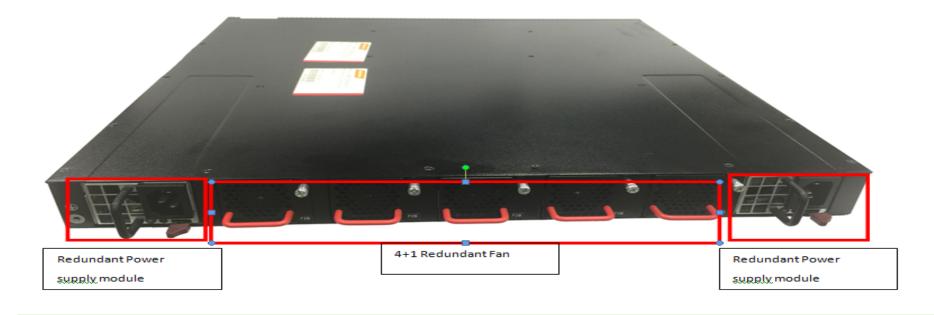
System LEDS

Mini USB 2.0 type "A" port

RJ45 RS232 management port

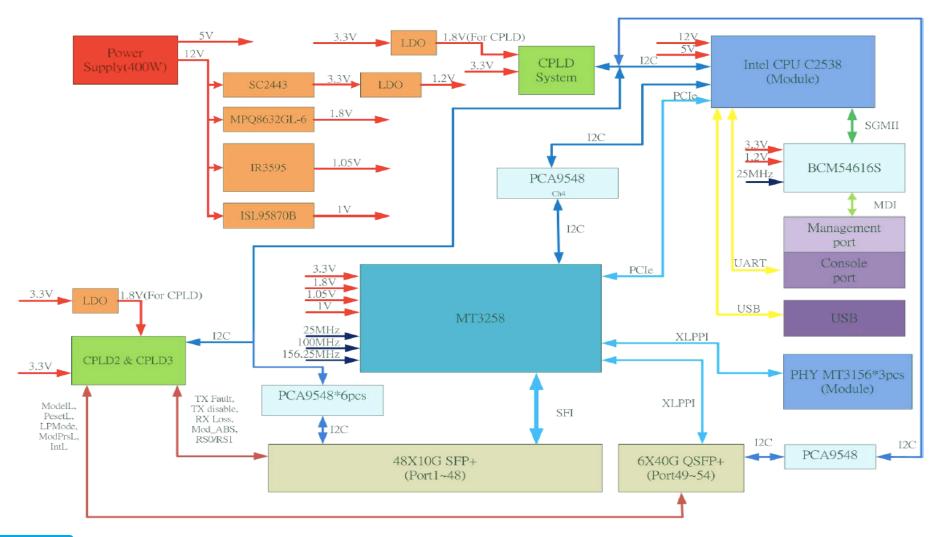RJ45 10/100/1000 Ethernet management port

Reset switch

Rear View

Redundant Power supply module

4+1 Redundant Fan

Redundant Power supply module

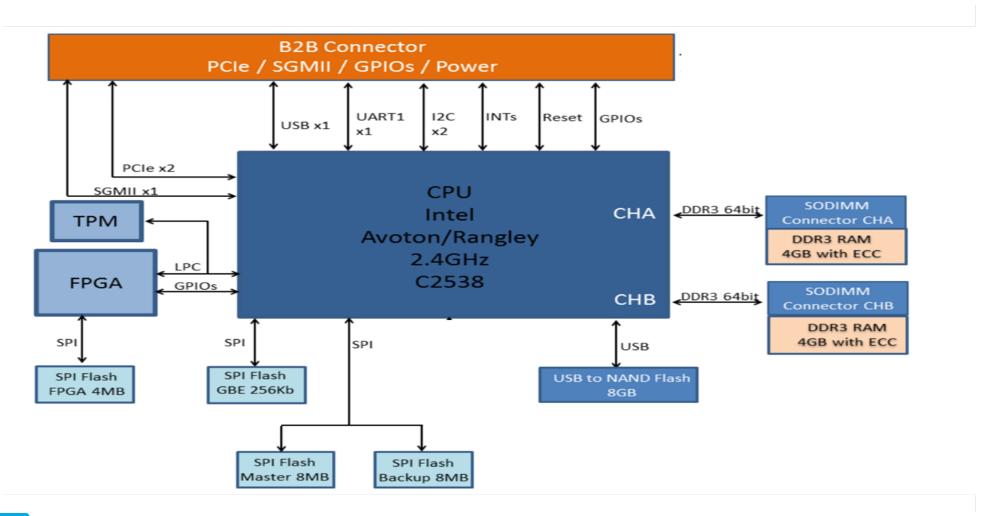Five (4+1) redundant hot swappable fan modules

Two redundant hot swappable power supply modules

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Main PCB Board

CPU Board

Thank You

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