

## NXT-F48C810R

48x25G SFP28+ 8x100G QSFP28+ 2x10G SFP+ switch ports with Trident 3

The Tyrone's NXT-F48C810R switch is a Top-of-Rack (TOR) switch for high-performance data centers which includes redundant hot-swappable AC PSUs and power-to-port airflow. In a compact 1RU form factor, the switch provides line-rate L2 and L3 switching across the 48 x SFP28 + 8 x QSFP28 ports, and each QSFP28 port can be configured as 2 x 50 GbE, 4 x 25 GbE, 1 x 40 GbE, or 4 x 10 GbE by using DAC breakout cables. The switch can be deployed as a TOR switch supporting 10/25 GbE to servers with 40/50/100 GbE uplinks. This open network switch is loaded with the Open Network Install Environment (ONIE) which supports the installation of compatible Network Operating System (NOS) software, including the open-source options Open Network Linux plus commercial NOS offerings.



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onie

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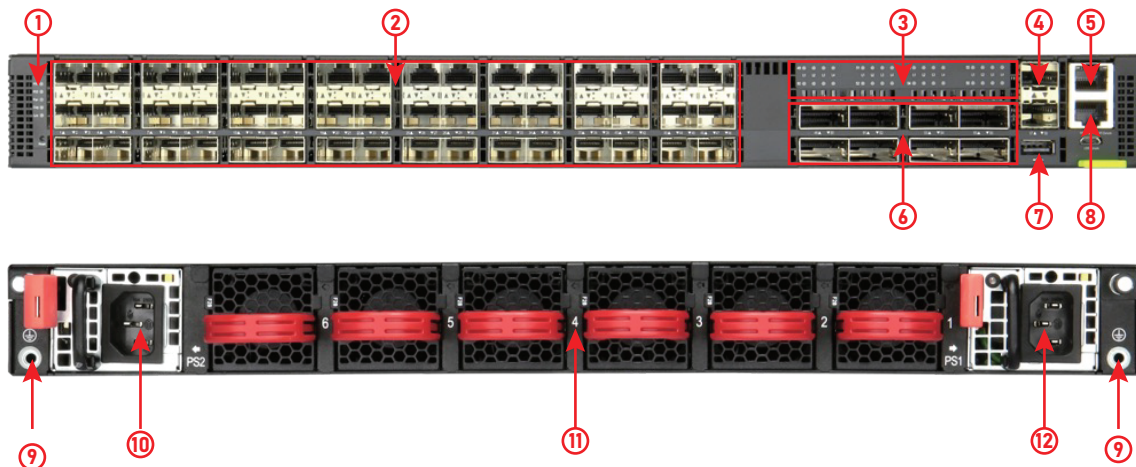


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## Key Features

- 48 x SFP28 + 8 x QSFP28 switch ports, each QSFP28 supporting 1 x 100 GbE or 1 x 40 GbE, or via breakout cables, 2 x 50 GbE, 4 x 25 GbE, or 4 x 10 GbE.
- Deploy as Top-of-Rack switch supporting 10 or 25 GbE to servers, with 40 GbE, 50 GbE, or 100 GbE uplinks
- Hardware switch pre-loaded with Open Network Install Environment (ONIE) for automated loading of compatible open source and commercial NOS offerings.
- Cost-effective, open network switch for data center fabric
- Layer 2 or Layer 3 forwarding of 4 Tbps (Full duplex)
- All ports on front, PSUs and fans accessible from rear
- 5+1 redundant, hot-swappable fan modules
- With SONiC open-source network software (Optional).
- With TPM 2.0 feature for security enhancements.
- With secure boot feature for security enhancements.
- Based on Broadcom BCM56873 (Trident III)
- Jumbo frames support up to 9K Bytes
- 32 MB integrated packet buffer
- 4L VLAN IDs
- 1U rack-mountable

## Interfaces



### Description

1. System LEDs	5. 1 x Management Port	9. Grounding point
2. 48 x 25G/SFP28 ports	6. 8 x 100G/QSFP28 ports	10. PSU 2
3. Port indicators	7. USB storage port	11. Hot-swappable 5 + 1 redundant fans
4. 2 x 10G/SFP+ ports	8. Console port	12. PSU 1



### SWITCH PORTS:

- 48 x 25 GbE SFP28 + 8 x 100 GbE QSFP28 ports:
  - Each SFP28 supports 1 x 1 GbE (fixed speed, no Auto-negotiation) or 10GbE or 25 GbE single rate transceivers, AOC, and DAC
  - RJ-45 transceivers are supported
  - Each QSFP28 supports 1 x 40/100 GbE or 4 x 25 GbE or 4 x 10 GbE per port using breakout cables
- Note: When a DAC cable is used in a topology, a link issue may be encountered if the CR4 Auto-Negotiation/Link Training does not turn on. This can be solved by manually enabling CR4 Auto Negotiation/Link Training.**
- Management Ports on Port Side:
  - 1 x RJ-45 serial console
  - 1 x RJ-45 100/1000 BASE-T management port
  - 1 x USB Type A storage

### KEY COMPONENTS:

- Switch Silicon: Broadcom BCM56873 Trident III 2.0 Tbps No PHYs
- CPU Modules:
  - Intel® Xeon® D-1518 processor quad-core 2.2 GHz
  - DDR4: SO-DIMM 8 GB x 2
  - SPI Flash: 16 MB x2
  - m.2 SSD: 64 GB MLC

### PERFORMANCE:

- Switching Capacity: 4 Tbps full duplex
- Forwarding Rate: 2 Bpps
- Jumbo frames support up to 9K Bytes
- Packet Buffer Size: 32 MB integrated packet
- Buffer MAC Addresses: 32K min./288K max.
- VLAN IDs: 4K
- IPv4: 16K min./168K max. host entries; 32K LPM entries with TCAM-only mode
- IPv6: 8K min./100K max. host entries; IPv6/128 = 8K TCAM-only mode

### LEDs:

- SFP28 Port LEDs: Link Status, Activity, Rate
- QSFP28 Port LEDs: Link Status, Activity, Rate
- Ethernet Management Port LED: Link Status, Activity
- System LEDs: Diagnostic, Locator, PSU and Fan Status

### POWER:

- PSUs: 2 redundant, load-sharing, hot-swappable AC
- AC input range: 100–240 VAC, 50–60 Hz
- Redundant, current sharing, PG
- Power Rating: 650 Watts

### SOFTWARE:

- Switch is loaded with Open Network Install Environment (ONIE) software installer
- Compatible with the following NOS options:
  - Open source options
  - Commercial NOS offerings

### PHYSICAL AND ENVIRONMENTAL:

- Dimensions (WxDxH): 43.84 x 53.6 x 4.35 cm (17.26 x 21.1 x 1.71 in.)
- Weight: 10 kg (22.05 lb), with two installed PSUs
- 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

### FOR MORE INFORMATION

To find out more about Tyrone NXT's products and solutions, visit [www.tyronesystems.com/networking](http://www.tyronesystems.com/networking)



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25G INTERFACE

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