

# S9610-48DX

## Open Aggregation Router

Standard Version

The S9610-48DX open aggregation router, is a multi-function, white box routing platform. It is equipped with Broadcom's Qumran2c+ merchant silicon chip, an Intel® Xeon® D processor, and features 40x100G and 8x400G high speed ports with a switching capacity of up to 7.2Tbps.

The S9610-48DX can be deployed at aggregation hubs to provide fixed and mobile transport aggregation. It can also be programmed to be a Broadband Network Gateway (BNG) to enable the next generation broadband network. In addition, with a high port density, Class C timing and fully supporting SyncE and IEEE 1588v2, our S9610-48DX is capable of fulfilling the role of any type of mobile network aggregation.

Our S9610-48DX open aggregation router is also capable of converging IP/Optical networks. It is compatible with 400G ZR/ZR+ transceivers from multiple vendors to enable long distance optical transmissions while simplifying the optical transport network infrastructure.



## KEY BENEFITS

- Highly reliable, non-blocking switching capacity
- Streamline fixed and mobile networks into a converged network
- Integrate open NOS applications for highly reliable and flexible networks
- Futureproof to meet evolving requirements of 5G with ultra-low latency, high precision frequency and phase timing synchronization support
- Quick and easy installation onto standard 19" server racks
- User friendly maintenance design with redundant and hot swappable power and fan modules

## KEY FEATURES

- High-density 40x100G interfaces for large-volume traffic aggregation
- 8x 400G interfaces with OpenZR+ support
- 7.2Tbps switching capacity with an 8-Core, 2.1GHz processor
- 8GB Deep buffer
- Class C timing accuracy support
- Fully supports SyncE and IEEE 1588v2 timing synchronization profiles
- Integrated Stratum 3E OCXO with optional hold over performances
- Support full Segment Routing over IPv6 (SRv6)
- MACsec supports on all ports
- TCAM option available to meet diverse deployment requirements

# SPECIFICATIONS

## PHYSICAL

- 8 x 40/100/200/400G QSFP-DD ports with 400G ZR/ZR+ support
- 40 x 40/100G QSFP28 ports
- 4 x 10/25G SFP28/SFPDD ports (In-band port share with 100GE Port 0)
- 4 x 10G SFP+ management ports
- 1 x RJ45 & Micro USB serial console port
- 1 x 100/1000M RJ45 management port
- 1 x USB 3.0 Type-A port

|                 |                                                                                                                                                       |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Processor       | Intel Icelake-D 8-Core @ 2.1GHz                                                                                                                       |
| Memory          | 64G DDR4                                                                                                                                              |
| Storage         | 128G SSD                                                                                                                                              |
| ASIC            | Broadcom Qumran2c+ BCM88840<br>Broadcom OP2 BCM16K (optional)                                                                                         |
| BMC             | AST2620                                                                                                                                               |
| Interfaces      | 1 x GNSS input SMA                                                                                                                                    |
| Timing          | 1 x 10MHz input/output SMB<br>1 x 1PPS input/output SMB<br>1 x ToD input/output RJ45<br>1 x BITS input/output RJ48                                    |
| Timing Support  | Stratum 3E OCXO<br>ITU-T Synchronous Ethernet (SyncE)<br>IEEE 1588v2 - Default, G.8265.1 G.8275.1,<br>G.8275.2, SMPTE ST 2059-2-, T-GM, T-BC/OC, T-TC |
| Chassis (WxDxH) | 2 RU, 436 x 762 x 87.7 mm<br>or 17.17" x 30" x 3.45"<br>Weight: 22.64kg or 49.91lb (without FRU)                                                      |
| Redundancy      | Hot-swappable, 1+1 redundant PSU<br>Hot-swappable, 3+1 redundant Fans                                                                                 |

\*NOS integration is necessary to activate the specific feature.  
\*\*Additional license is required

S9610-48DX

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## ENVIRONMENTAL

|                           |                                                                                                          |
|---------------------------|----------------------------------------------------------------------------------------------------------|
| Power Specs.              | AC input: 200 to 240V, 12.5A<br>DC input: -40 to -72V, 60A<br>Typical Power: 548 W (no transceiver)      |
| Max. Operating Specs.     | Operating temperature: 0°C to 45°C (32°F to 113°F)<br>Operating humidity: 5% to 85% (RH), non-condensing |
| Max. Non-Operating Specs. | Storage temperature: -40°C to 70°C (-40°F to 158°F)<br>Storage humidity: 5% to 93% (RH), non-condensing  |

## PERFORMANCE

|                    |         |
|--------------------|---------|
| Switching Capacity | 7.2Tbps |
| Deep Buffer        | 8GB     |

## REGULATORY COMPLIANCE

|             |                           |     |                                                                                                                                                                                                   |
|-------------|---------------------------|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Safety      | UL 62368-1<br>IEC 62368-1 | EMC | FCC Part 15, Subpart B, Class A<br>ICES-003, Class A<br>EN 55032, Class A<br>EN 300 386<br>EN 301 489<br>EN 303 413<br>EN 55035<br>EN 62479<br>EN 50663<br>VCCI CISPR 32, Class A<br>NEBS GR-1089 |
| Environment | NEBS GR-63<br>WECC        |     |                                                                                                                                                                                                   |

Specifications are subject to change without notice.  
Contact our sales team for current configuration options.

S9610-48DX Front and Rear Views



## ACCESSORIES

**Compatible Transceivers Types**  
400G QSFP-DD SR, 400G QSFP-DD LR, 400G QSFP-DD ER, 400G QSFP-DD ZR, 400G QSFP-DD OpenZR+, 100G QSFP28 SR, 100G QSFP28 LR, 100G QSFP28 ER, 100G QSFP28 ZR, 100G QSFP28 OpenZR+, 25G SFP28 SR, 25G SFP28 LR, 10G SFP+ SR, 10G SFP+ LR

**Compatible Timing Cable Types**  
50 ohms SMA coaxial cable with 1/4-36UNS-2B connector for GNSS  
50 ohms SMB coaxial cable with 10-32UNF-2A connector for 1PPS and 10MHz  
Shield cable with RJ45 for ToD  
Shield cable with RJ48 for BITS

**Available to Order**  
**Power Supply Types**  
PSU-202-DESR, 2000W DC, exhaust air flow  
PSU-202-AESR, 2000W AC, exhaust air flow

**FAN Types**  
FAN-808012-HCE, exhaust air flow

