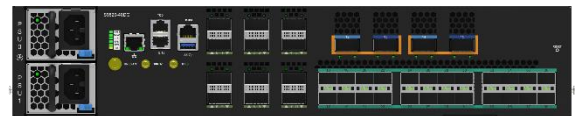


# S9620-40DG

## Open Aggregation Router

The S9620-40DG is an ultra-compact 40-port open aggregation router built on the Broadcom® Qumran3a silicon, specifically engineered for high-density transport in space-constrained environments. The platform features a versatile port configuration including 24 x 50G SFP56 ports, 12 x 100G QSFP28 ports, and high-speed uplink options of either 4 x 400G or 2 x 800G via QSFP-DD ports. With its industry-leading 250mm depth, this router is optimized for deployment in shallow outdoor cabinets or crowded street-side enclosures where standard rack-mount equipment cannot fit. The hardware supports MACsec encryption across all ports and is compatible with 400G/800G ZR+ coherent optics for long-reach metro aggregation. This combination of 800G capability and deep-buffer Qumran architecture allows the S9620-40DG to serve as a high-capacity cell site aggregator or a compact DCI edge node, maintaining low latency and packet-loss prevention for jitter-sensitive 5G and AI inference traffic.



## KEY BENEFITS

- Powered by Broadcom® Qumran3a silicon to deliver high-density transport for high-capacity cell site aggregation and compact DCI edge nodes.
- Ultra-Short 250mm Depth & Hardened Operating Temp (-40°C to 70°C) engineered for space-constrained outdoor cabinet deployments.
- Versatile and high-speed port configuration supporting 50G, 100G, and next-generation 400G/800G uplinks via QSFP-DD ports for flexible network scaling.
- Suitable for WAN and long-haul applications, supporting 400G/800G ZR+ coherent optics for high-capacity metro and regional aggregation.
- 16GB External Deep Buffer to seamlessly absorb extreme traffic microbursts and guarantee zero packet loss in heavily congested links.
- Robust Hardware-Integrated MACsec Encryption across all ports to ensure highly secure, end-to-end data transport.

## KEY FEATURES

- Supports full SyncE and IEEE 1588v2 (T-GM, T-BC/OC, T-TC)
- Integrated Stratum 3E OCXO with optional hold over performances
- Supports Time Sensitive Networking (TSN) for low packet loss and low delay variation
- Supports hardware-accelerated MACsec and IPsec for comprehensive Layer 2 and Layer 3 data encryption
- Supports full Segment Routing over IPv6 (SRv6)
- Class C timing accuracy support
- Internal GNSS receiver for master clock implementations
- Supports 50G, 100G, 400G, and up to 800G for 5G
- Hot swappable power supplies with 1+1 redundancy support
- Hot swappable fan modules with 4+1 redundancy support

SPECIFICATIONS

PHYSICAL

|                   |                                                                                                                                                    |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| ◆                 | 24 x 1/10/25/50G SFP56 ports                                                                                                                       |
| ◆                 | 12 x 40/100G QSFP28 ports                                                                                                                          |
| ◆                 | 4 x 400G or 2 x 800G QSFP-DD ports                                                                                                                 |
| ◆                 | 1 x 100/1000M RJ-45 OOB management port                                                                                                            |
| ◆                 | 1 x RJ45 serial console ports                                                                                                                      |
| ◆                 | 1 x USB 3.0 Type-A port                                                                                                                            |
| ASIC              | Broadcom® Qumran3a BCM88490                                                                                                                        |
| Processor         | Intel® Xeon® D 8 Cores @1.9GHz                                                                                                                     |
| Memory            | 2x16GB DDR4 SO-DIMM with ECC (Standard)<br>2x32GB DDR4 SO-DIMM with ECC (Premium)                                                                  |
| Storage           | 160G SSD                                                                                                                                           |
| BMC               | Aspeed AST2620                                                                                                                                     |
| Timing Interfaces | 1 x GNSS input SMA<br>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 RJ48                  |
| Timing Support    | Stratum 3E OCXO<br>ITU-T Synchronous Ethernet (SyncE)<br>IEEE 1588v2 (Default Profile, G.8265.1 G8275.1, G.8275.2 profiles)<br>T-TC, T-BC/OC, T-GM |
| Chassis (WxDxH)   | 2RU, 440mm(W) x 250mm(D) x 89mm(H)<br>or 17.32" x 9.84" x 3.50"<br>Weight: 8.5 kg (without FRU)                                                    |
| Redundancy        | Hot swappable, 1+1 redundant PSU<br>Hot swappable, 4+1 redundant Fans                                                                              |

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

S9620-40DG

Telecom  
Networking  
Solutions

ENVIRONMENTAL

|                           |                                                                                                             |
|---------------------------|-------------------------------------------------------------------------------------------------------------|
| Power Supply              | AC input: 100 to 240V, 12A<br>DC input: -40 to -72V, 30A<br>Typical power: 268 Watts (no transceiver)       |
| Max. Operating Specs.     | Operating temperature: -40°C to 70°C (-40°F to 158°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

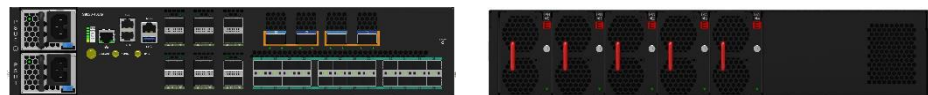
|                    |         |
|--------------------|---------|
| Switching Capacity | 2.4Tb/s |
| Deep Buffer        | 16GB    |

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 55035<br>EN 301 489<br>EN 303 413<br>VCCI CISPR 32, Class A |
| Environment | WEEE                      |     |                                                                                                                                                           |

Specifications are subject to change without notice. Please contact our sales team for the latest configuration options.

S9620-40DG Front and Back Views



SUPPORTED ACCESSORIES

**Compatible Transceivers Types**

800GE QSFP-DD OpenZR+, 800GE QSFP-DD ZR, 800GE QSFP-DD 2xLR4, 800GE QSFP-DD 2xFR4, 800GE QSFP-DD DR8+, 800GE QSFP-DD DR8, 800GE QSFP-DD SR8, 400GE QSFP-DD OpenZR+, 400GE QSFP-DD ZR, 400GE QSFP-DD ER4, 400GE QSFP-DD LR4, 400GE QSFP-DD FR4, 400GE QSFP-DD SR8, 400GE QSFP-DD DR4, 400GE QSFP-DD DR4+, 400GE QSFP-DD LR4, 100GE QSFP-DD ZR+, 100GE QSFP28 ZR4, 100GE QSFP28 ER4, 100GE QSFP28 SR4, 100GE QSFP28 LR4, 50GE SFP56 SR, 50GE SFP56 LR, 50GE SFP56 ER, 25GE SFP28 SR, 25GE SFP28 LR, 25GE SFP28 ER, 10GE SFP+ SR, 10GE SFP+ LR, 10GE SFP+ ER, 1GE SFP SX, 1GE SFP LX,

**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-102-AISB-1, 1000W AC, intake air flow  
PSU-102-DISB-1, 1000W DC, intake air flow

**Fan Types**  
FAN-40802825-HD, exhaust air flow