

# S9601-102XC

## Open Aggregation Router

The S9601-102XC is a multi-function, white box open aggregation router with an external TCAM, equipped with Broadcom's Qumran2c silicon and an Intel Ice Lake processor (available in 8-core or 16-core versions).

It features 96x25G and 6x100G high-speed ports with a switching capacity of up to 2.4Tbps. This platform can be deployed at C-RAN hubs for 5G fronthaul aggregation, at the backhaul for BBU pooling, or programmed as a Broadband Network Gateway (BNG).

Specializing in 5G Time Sensitive Networking (TSN), the S9601-102XC complies with IEEE 802.1CM and can act as an Edge Grandmaster (GM) clock. With high port density and Class C timing (supporting SyncE and IEEE 1588v2), it ensures high-accuracy synchronization for 5G and cooperative radio techniques. The design fits standard 19" racks and includes redundant, hot-swappable power and fan modules to streamline maintenance.



## KEY BENEFITS

- Enable Time Sensitive Networking for 5G compatibility
- Integrate open NOS applications for highly reliable composable 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
- Streamline maintenance with redundant and hot swappable power and fan modules

## KEY FEATURES

- High density, 96x25G ports with additional 6x100G ports
- 2.4Tbps switching capacity with an Ice Lake processor
- 4GB Packet buffer
- Class C timing accuracy support
- Fully supports SyncE and IEEE 1588v2 timing synchronization profiles
- Integrated Stratum 3E OXCXO with optional hold over performances
- Internal GNSS receiver for master clock implementations
- Support full Segment Routing over IPv6 (SRv6)
- Hot swappable power supplies with 1+1 redundancy support
- Hot swappable fan modules with 3+1 redundancy support

SPECIFICATIONS

PHYSICAL

◆	6 x 40/100G QSFP28 ports
◆	96 x 1/10/25G SFP28 ports
◆	2 x 10G SFP+ management ports
◆	1 x RJ45 serial console ports
◆	1 x 100/1000M RJ45 management port
◆	1 x USB 3.0 Type-A port
ASIC	Broadcom Qumran2c BCM88820 Broadcom OP2 BCM16K
Processor	Intel Icelake-D 8-Core @ 2.1GHz (Standard) Intel Icelake-D 16-Core @ 2.0GHz (Premium) VROC Support
Memory	64GB DDR4 R-DIMM with ECC support
Storage	2 x 256GB SSD
BMC	Aspeed AST2620
Timing Interfaces	1 x GNSS input SMA 1 x 10MHz input/output SMB 1 x 1PPS input/output SMB 1 x ToD input/output RJ45
Timing Support	Stratum 3E OCXO ITU-T Synchronous Ethernet (SyncE) IEEE 1588v2 - Default, G.8265.1 G.8275.1, G.8275.2, SMPTE ST 2059-2** ,T-GM,T-BC/OC,T-TC Time Sensitive Networking (TSN)
Chassis (WxDxH)	2 RU, 436 x 609 x 87.7 mm or 17.17" x 23.97" x 3.45" Weight withou FRU: 15.19kg or 33.49lb
Redundancy	Hot swappable, 1+1 redundant PSU Hot swappable, 3+1 redundant Fans

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

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ENVIRONMENTAL

Power Supply	AC input: 100 to 240V, 12A DC input: -40 to -75V, 40A Typical power: 399 Watts (no transceiver)
Max. Operating Specs.	Operating temperature: 0°C to 45°C (113°F to 122°F) Operating humidity: 5% to 85% (RH), non-condensing
Max. Non-Operating Specs.	Storage temperature: -40°C to 70°C (-40°F to 122°F) Storage humidity: 5% to 93% (RH), non-condensing

PERFORMANCE

Switching Capacity	2.4Tbps
Deep Buffer	4GB

REGULATORY COMPLIANCE

Safety	UL 62368-1 IEC 62368-1	EMC	FCC Part 15, Subpart B, Class A ICES-003, Class A EN 55032, Class A EN 55035 EN 300 386 EN 301 489 EN 303 413 BSMI
Environment	WEEE ETSI 300 019 ETSI 300 132-2		

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

S9601-102XC Front and Back Views



SUPPORTED ACCESSORIES

Compatible Transceivers Types

100G QSFP28 SR4, 100G QSFP28 LR4, 100G QSFP28 ER4, 100G QSFP28 ZR4, 25G SFP28 SR, 25G SFP28 LR, 25G SFP28 ER, 10G SFP+ SR, 10G SFP+ LR, 10G SFP+ ER, 1G SFP SX, 1G SFP LX, 1G SFP EX

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

Available to Order

Power Supply Types

PSU-132-DESR, 1300W DC, exhaust air flow  
PSU-132-AESR, 1300W AC, exhaust air flow

Fan Types

FAN-803816-HI, exhaust air flow