

# S9600-32X

## Open Aggregation Router

The S9600-32X open aggregation router is a multi-function, disaggregated white box aggregation routing platform. It is equipped with a Broadcom Qumran2c merchant silicon chip and an Intel Skylake processor featuring 32 high speed 100G ports with a switching capacity of up to 2.4Tbps.

The S9600-32X can be deployed at C-RAN hubs to provide 5G fronthaul transport aggregation or be positioned at the backhaul for aggregating BBU pooling. It can also be programmed to be a Broadband Network Gateway (BNG) to enable the next generation broadband network. Equipped with high port density, Class C timing and fully supporting SyncE and IEEE 1588v2, our S9600-32X is capable of fulfilling the role of any type of network aggregation.

Specializing in 5G Time Sensitive Networking applications, the S9600-32X complies to the IEEE 802.1CM and addressing the demand of a high precision and low latency fronthaul transport. Our open aggregation router is compatible with high accuracy fronthaul synchronization and timing requirements (802.1CM-2018 category A, ITU-T G.8273.2 T-BC, Class C) to ensure error free operation of 5G and cooperative radio techniques.



## KEY BENEFITS

- Enable Time Sensitive Networking (TSN) and Class C timing for 5G services
- Ultra-low forwarding latency, high precision frequency and phase timing synchronization supporting the evolving requirements of 5G
- Integrated traffic manager and packet processor
- Simplify inventory and reduce opex using the same model accross multiple applications throughout the network
- Open NOS applications for highly reliable composable networks

## KEY FEATURES

- High density, 32x100G ports with 4 x 25G breakout ports
- 2.4Tbps switching capacity
- 4GB Deep buffer
- Intel Skylake 8-Core, 1.9GHz CPU
- Supports full SyncE and IEEE 1588v2
- Rich timing interfaces: GNSS, 1PPS, 10MHz, TOD
- Integrated Stratum 3E OCXO
- Class C timing accuracy
- Internal GNSS receiver for master clock implementations
- Redundant and hot swappable power and fan modules
- Designed for quick and easy installation onto 19" server racks

# SPECIFICATIONS

## PHYSICAL

◆ 32 x 40/100G QSFP28 ports	
◆ 4 x 1/10/25G SFP28 ports (In-band port share with 100GE Port 0)	
◆ 1 x RJ45 serial console port	
◆ 1 x Micro USB serial console port	
◆ 1 x 100/1000M RJ45 management port	
◆ 1 x USB 3.0 Type-A port	
Processor	Intel Skylake-D 8-Core @ 1.9GHz
Memory	32GB DDR4
Storage	128GB SSD
ASIC	Broadcom Qumran2c BCM88820
BMC	AST2400
Timing Interfaces	1 x GNSS input SMA 1 x 1PPS input/output SMB 1 x 10MHz 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)	2RU, 436 x 762 x 87.7 mm or 17.17" x 30" x 3.45" Weight: 17.73kg or 39.09lb
Redundancy	Hot swappable, 1+1 redundant PSUs Hot swappable, 3+1 redundant Fans

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

S9600-32X

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## ENVIRONMENTAL

Power Specs.	AC input: 100 to 240V, 13A DC input: -40 to -72V, 50A Typical power: 335 Watts (no transceiver)
Max. Operating Specs.	Operating temperature: 0°C to 45°C (32°F to 113°F) Operating humidity: 5% to 85% (RH), non-condensing
Max. Non-Operating Specs.	Storage temperature: -40°C to 70°C (-40°F to 158°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 IEC 60950-1 BSMI	EMC	FCC Part 15, Subpart B, Class A ICES-003, Class A EN 55032, Class A EN 55024 EN 55035 EN 62479 EN 50663 EN 300 386 EN 301 489 EN 303 413 BSMI VCCI CISPR 32, Class A
Environment	WEEE RoHS ETSI 300 132-2 ETSI 300 019		

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

S9600-32X Front and Back Views



## ACCESSORIES

- Compatible Transceiver 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
- 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-162-DESR, 1600W DC, exhaust air flow  
PSU-162-AESR, 1600W AC, exhaust air flow  
Fan Types  
FAN-803816-HI, exhaust air flow

