S9600-28DX
Open Aggregation Router

The S9600-28DX, is a multi-function, white box open aggregation router. It is equipped with Broadcom's Qumran2c merchant silicon with Intel's Icelake processor. The platform features 24x100G and 4x400G high speed ports with a switching capacity of up to 2.4Tbps.

The S9600-28DX can be deployed at C-RAN hubs to provide 5G fronthaul transport aggregation, positioned at the backhual for aggregating BBU pools, or be programmed to be a Broadband Network Gateway (BNG) to enable next generation broadband network. Supporting OpenZR+ makes it an ideal solution for metro aggregation.

Specializing in 5G time-critical applications, the S9600-28DX can act as an Edge Grandmaster (T-GM) or Boundary Clock (T-BC). Our open aggregation router is compatible with high accuracy fronthaul synchronization and timing requirements to ensure error free operation of 5G and cooperative radio techniques.

KEY FEATURES

- High density, 24x100GE ports with additional 4x400GE ports
- 2.4Tbps switching capacity with an 8-Core, 2.1GHz processor
- 4GB Deep Buffer
- Fully supports SyncE and IEEE 1588v2 timing synchronization profiles
- Integrated Stratum 3E OCXO with optional hold over performances
- Class C timing accuracy
- Integrated GNSS receiver with passive or active antenna support
- Rich timing interfaces: GNSS, 10MHz, 1PPS and ToD

KEY BENEFITS

- Highly reliable, non-blocking switching capacity
- Enable Time Sensitive Networking for 5G compatibility
- Integrate open NOS applications for highly reliable composable networks
- Futureproof to meet the evolving requirements of 5G with ultra-low latency, high precision frequency and phase timing synchronization support
- Suitable for WAN and long-haul applications, supports OpenZR+ for metro and regional aggregation
- Streamline maintenance with redundant and hot swappable power and fan modules

SPECIFICATIONS

PHYSICAL

- ◆ 4 x 40/100/400G QSFP-DD ports with 400ZR and OpenZR+ support
- ◆ 24 x 40/100G QSFP28 ports
- ◆ 4 x 1/10/25G SFP28 (MUX configurable from Port-0 100G)
- ◆ 1 x RJ45 & Micro USB serial console ports
- ◆ 1 x 100/1000M RJ45 management port
- ◆ 1 x USB 3.0 Type-A port

Processor	Intel Icelake-D 8-Core @ 2.1GHz
Memory	32GB DDR4
Storage	128GB SSD
ASIC	Broadcom Qumran2c BCM88820
BMC	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 G8275.1, G.8275.2), T-TC, T-BC/OC, T-GM Time Sensitive Networking (TSN)
Chassis (WxDxH)	2RU, 436 x 762 x 87.7 mm or 17.17" x 30" x 3.45" Weight: 17.7kg or 39.02lb
Redundancy	Hot swappable, 1+1 redundant PSU Hot swappable, 3+1 redundant Fans

ENVIRONMENTAL

Power Specs.	AC input: 100 to 240V, 12A DC input: -40 to -75V, 40A Typical power: 324 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	IEC/UL 62368-1 IEC/UL 60950-1	EMC	FCC Part 15, Subpart B, Class A
Environment	WEEE		

Specifications are subject to change without notice.

S9600-28DX

Telecom Networking Solutions

S9600-28DX Front and Back Views

SUPPORTED ACCESSORIES

Transceiver 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, 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

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

Power Supply Types
1300W DC, exhaust air flow
1300W AC, exhaust air flow

Fan Types
Exhaust air flow