AGGREGATION ROUTER
AS9947-36XKB

The AGR560 is the latest generation of Edgecore AGR portfolio, and a high-performance 100GbE to 400GbE aggregation router that consists of fixed 12 x 400GbE QSFP-DD and 12 x 100GbE network interfaces in a 2RU compact design that can be deployed as a standalone router. This platform is built for environments requires high performance with excellent scalability to meet the needs for the large scale data centers and service providers. With the scalable L2 and L3 database resources leveraging from the merchant silicons, and computing power available from the robust server-grade CPU with precision timing, this aggregation router platform can deliver scalable and deterministic network performance with simplified design and TCO reduction.

The AGR560 is designed to be deployed in a wide range of scenarios such as a ToR switch, a spine switch, a data center interconnect (DCI), metro Ethernet aggregation, BNG router, or a provider edge (PE) router. With the capabilities to address requirements for modern networking environments with the on-chip HBM deep packet buffer up to 8GB, and the support of 400G DWDM ZR/ZR+ optics on both the 100GbE and 400GbE interfaces, providing a lossless forwarding solution for data centers and service providers in a compact and energy efficient platform with long haul optical reach. Even eliminating the need of external transponders and line systems when being used as a DCI with amplifiers and other pluggable optical components.

The AGR560 is loaded with the Open Network Install Environment (ONIE), which supports the installation of compatible Network Operating System (NOS) software, including the open source option Open Network Linux (ONL), plus commercial NOS offerings.

Key Features and Benefits

- High-performance 100GbE to 400GbE router for telco operators and data center applications
- Incorporates Broadcom StrataDNX™ Jericho2c+ with external TCAMs offers high scalabiliy
- On-chip HBM deep packet buffering up to 8GB
- Supports front-to-back airflow SKU
- Load-sharing, hot-swappable, and 1+1 redundant DC-DC/AC-DC PSU options
- Hot-swappable, and 3+1 redundant modular fans
- Supporting Synchronous Ethernet, and IEEE 1588v2 PTP
- Isolation of malfunctioning transceiver, minimizing impact of traffic.
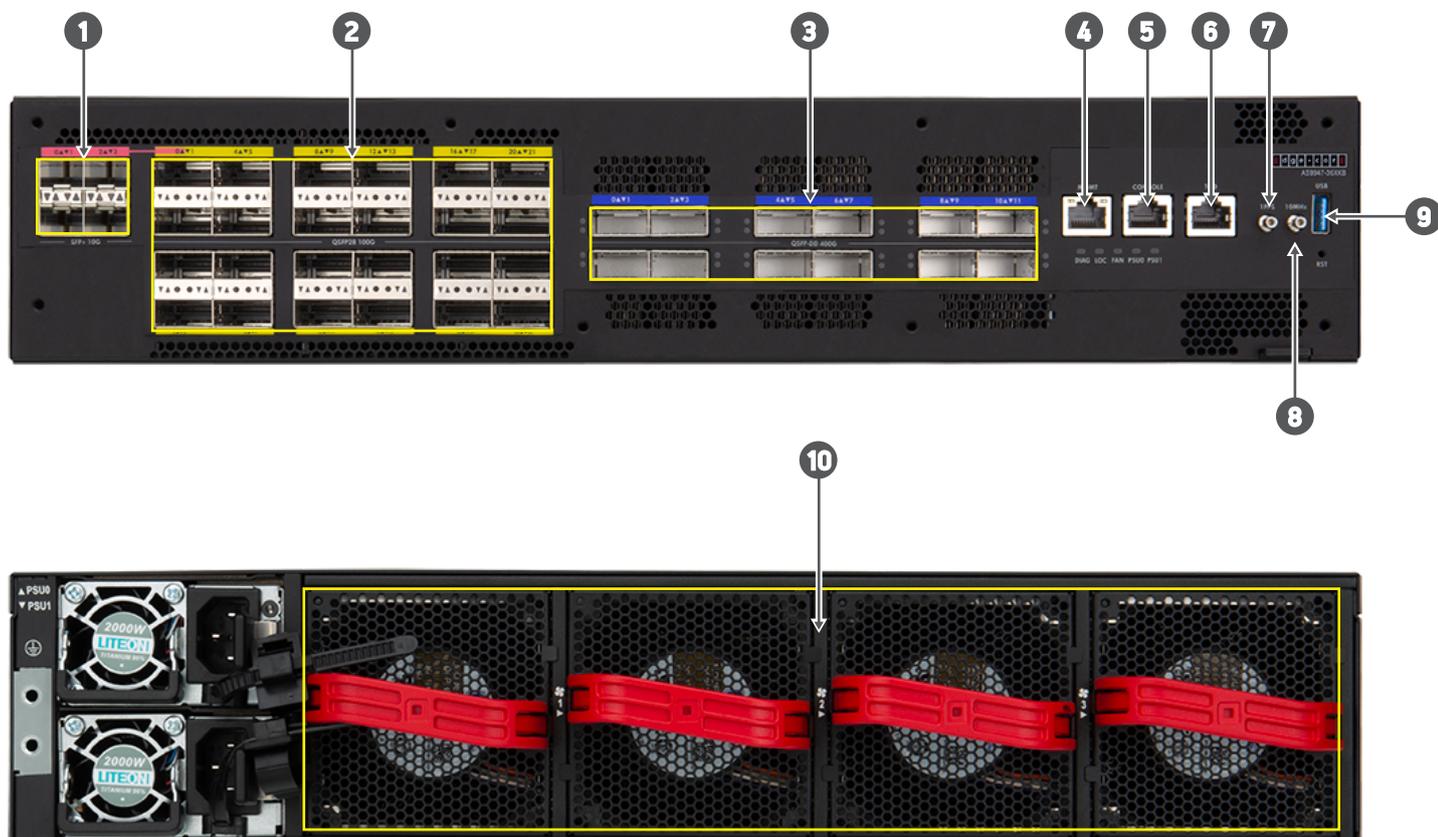
Applications

- Disaggregated aggregation router
- BNG router
- Provider edge (PE) router
- 100GbE to 400GbE ToR/leaf switch, or even a spine switch when a full 400G super spine switch is present
- Data center interconnect (DCI)

Free Software Included

onie

Interfaces

Description		
1. 4 x 10G SFP+ Combo ports	6.	1 x RJ-45 ToD port
2. 24 x 100GbE QSFP28 (6.5 W) ports	7.	1 x SMB 1PPS input/output
3. 12 x 400GbE QSFP-DD (23 W) ports	8.	1 x SMB 10MHz input/output
4. 1 x RJ-45 management port	9.	1 x USB Type A
5. 1 x RJ-45 console management port	10.	3 + 1 redundant fans

Ports

- Interface:
  12 x 400GbE QSFP-DD ports
  24 x 100GbE QSFP28 ports
  4 x 10GbE SFP+ Combo ports
- Supported Transceivers and Cables:
  100GBASE-SR4/LR4/ER4/ZR4/PSM4-2
  400GBASE-ZR/ZR+
  - Note: More optics and detailed cabling information can be found at www.edge-core.com.
- Management Ports:
  1 x RJ-45 serial console port
  1 x RJ-45 10/100/1000BASE-T management port
  1 x USB storage
- Timing:
  1 x RJ-45 1PPS input/output
  1 x SMB 1PPS input/output
  1 x SMB 10MHz input/output

Key Componets

- Switch Silicon:
  Broadcom BCM88851 Jericho2c+
  Broadcom BCM16000 OP2 (TCAM)
  Broadcom BCM81724 Gearbox
  Broadcom BCM81385 MUX
- CPU Module:
  Intel® Xeon® D-1734NT 8-Core with TPM2.0 SPI
  SDRAM DDR4 SO-DIMM 64GB (32GB x 2)
  SPI Boot Flash redundant (2 x 16 MB)
  SSD: 480G NVMe
- BMC: ASPEED AST2600

Performance

- Capacity: 7.2 Tbps full duplex (Network Interface Only)

Physical and Environmental

- Dimensions (WxDxH): 440 x 649.2 x 87 mm (17.32 x 25.56 x 3.43")
- Weight: 20.85kg (fully configured with 2 * AC PSUs and 4 * modular fans)
- Fans: Hot-swappable 3+1 redundant fans
- Operating Temperature: 0°C – 45°C (32°F – 113°F)
- Operating Humidity: 5% to 95% (Non-Condensing)
- Operating Altitude: Up to 5,000 ft

PSU

- DC Input: -48V - -60V
- AC Input: 200V–240V

Regulatory*

- Safety*:
  UL (CAN/CSA 22.2 No 60950-1 & UL60950-1)
  IEC 62368-1
  CB (IEC/EN60950-1)
- Electromagnetic Compatibility*:
  CE Mark:
    EN 55032 Class A
    EN 55024 (Immunity) for Information Technology Equipment
    EN 61000-3-3
    EN 61000-3-2
  FCC Title 47, Part 15, Subpart B Class A
- Environmental*:
  Bump: IEC60068-2-29- packaged
  Shock: ETSI EN 300 019-2-3 -Operational Tests, Class T3.2 op
  RoHS 2.0 Compliant
  WEEE Standards: The switches complied with the following WEEE standards: Waste Electrical and Electronic Equipment (WEEE Directive 2002/96/EC)
  (*Certification is by request with fees.)
  Design to meet GR63 and GR1089 for NEBS Lv.3

Warranty

Please check www.edge-core.com for the warranty terms in your country.

For More Information

To find out more about Edgecore Networks Corporation products and solutions, visit www.edge-core.com.

About Edgecore Networks Corporation

Edgecore Networks Corporation is in the business of providing innovative network solutions. In the service provider network, in the data center or in the cloud, Edgecore Networks Corporation delivers the software and systems that transform the way the world connects. Edgecore Networks Corporation serves customers and partners worldwide. Additional information can be found at www.edge-core.com.

Edgecore Networks Corporation is a subsidiary of Accton Technology Corporation, the leading network ODM company. The Edgecore data center switches are developed and manufactured by Accton.

To purchase Edgecore Networks solutions, please contact your Edgecore Networks Corporation representatives at +886 3 563 8888 (HQ) or +1 (949)-336-6801 or authorized resellers.