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AS7700-32X Series Switch
100GbE Data Center Switch
Bare-Metal Hardware

Product Overview
The AS7700-32X switch is a Top-of-Rack (TOR) or spine switch for high-performance data centers. In a compact 1RU form factor, the switch provides line-rate L2 and L3 switching across to 32 x QSFP28 ports, supporting up to 32 x 40/100 GbE, 64 x 50 GbE, or 128 x 10/25 GbE connections. The AS7700-32X can be deployed as a TOR switch supporting 10/25/50 GbE to servers with 40/50/100 GbE uplinks, or as a spine switch supporting 40/50/100 GbE spine interconnects. The AS7700-32X is a bare-metal switch loaded with the Open Network Install Environment (ONIE) which supports the installation of compatible NOS, including Open Network Linux and commercial offerings.

Key Features and Benefits
■ Cost-effective, bare-metal switch infrastructure for data center fabric.
■ Deploy as Top-of-Rack switch supporting 10 or 25 GbE to servers, with 40 or 50 or 100 GbE uplinks.
■ Deploy as spine switch supporting 40, 50, or 100 GbE ToR and spine interconnects.
■ 32 x QSFP28 switch ports, each supporting 1 x 100 GbE or 1 x 40 GBE, or via breakout cables, 2 x 50 GbE or 4 x 25 GbE or 4 x 10 GbE.
■ Layer 2 or Layer 3 forwarding of 6.4 Tbps (full duplex).
■ Supports hot/cold aisle with port-to-power and power-to-port airflow SKUs.
■ All ports on front; PSUs and fans accessible from rear.
■ Hot-swappable, load-sharing, redundant AC or -48V DC or 12V DC PSUs.
■ 5+1 redundant, hot-swappable fan modules.
■ Energy Efficiency: 310 W typical power consumption without pluggable optics.
■ Bare-Metal hardware switch pre-loaded with diagnostic and with Open Network Install Environment (ONIE) for automated loading of compatible independent switchOS software.
■ Compatible with Open Network Linux, an open-source, OCP-approved reference NOS.
■ Compatible with Cumulus®Linux® future release.
■ Design submitted to Open Compute Project as open standard.
### Features

#### Ports

- **Switch Ports:**
  - 32 x QSFP28 ports. Each port supports 1x40/100 GbE or 2 x 50 GbE or 4 x 10/25 GbE per port using splitter cables.
  - Management ports on port side:
    - 1 x RJ-45 serial console
    - 1 x RJ-45 100/100BASE-T management
    - 1 x USB Type A storage

#### Key Components

- **Switch Silicon:** Broadcom BCM56960 Tomahawk 3.2 Tbps.
- **CPU Modules:**
  - 7710-32X: Freescale T2080 quad-core 1.8GHz
    - 16GB DDR3 SDRAM SO-DIMM
    - 8GB NAND Flash
    - Optional 8GB SD Card
    - Optional 32GB mSATA
    - Optional 32GB m.2
  - 7712-32X: Intel Broadwell-DE quad-core 2.3GHz
    - 16GB DDR4 SDRAM SO-DIMM
    - 8GB NAND Flash
    - Optional 32GB mSATA
    - Optional 32GB m.2

#### Performance

- **Switching Capacity:** 3.2Tbps full duplex, with packets>250B
- **Forwarding Rate:** 7.68 Bpps
- **12k Jumbo packets**
- **IPv4:** 72k host entries; 128k LPM entries
- **IPv6:** 36k host entries; IPv6/64=85k, IPv6/128=21k
- **Packet Buffer Size:** 24 MB shared buffer pool

#### LEDs

- **OSPF 28 Port LEDs:** Link Status, Activity, Rate
- **Ethernet Management Port LED:** Link Status, Activity
- **Console Port LED:** Link Status
- **System LEDs:** Diagnostic, Locator, PSU & Fan Status

#### Software

- **Diagnostics**
- **U-Boot on Freescale CPU Module; BIOS on Intel CPU Module**
- **Switch is loaded with Open Network Install Environment (ONIE) software installer**

#### Power

- **PSUs:** 2 redundant, load-sharing, hot-swappable
  - AC PSUs
    - Input Voltage: 90 to 264 VAC at 50-60 Hz
    - Output Voltage: 12V @ 52.9A, 5V @ 4A
    - PSU Efficiency: Up to 93% for AC PSUs
    - 48V DC PSUs
    - Input Voltage: -36 to -72 VDC
    - Output Voltage: 12V @ 52.9A, 5V @ 4A
    - 12V DC PSUs
    - Input Voltage: 12 VDC +5%
    - Output Voltage: 12V @ 52.9A, 5V @ 4A
  - **Max Power:** 350 W, without pluggable optics
  - **Typical Power:** 310 W, without pluggable optics

### Physical and Environmental

- **Dimensions (WxHxD):** 438 x 515 x 43.5 mm
- **Weight:** 10 kg (23 pounds)
- **Operating Temperature:** 0°C to 45°C (32°F to 113°F)
- **Storage Temperature:** -40°C to 70°C (-40°F to 158°F)
- **Operating Humidity:** 5% to 95% non-condensing
- **Operating Altitude:** 0 to 10,000 feet

### Regulatory

- **EMI**
- **CE Mark**
- **EN55022 Class A**
- **EN55024 (Immunity) for IT Equipment**
- **EN 61000-3-2**
- **EN61000-3-3**
- **FCC Part 15 Subpart B Class A**
- **VCCI Class A**
- **Safety**
  - **CB, EN 60950**
  - **UL/CUL**
- **Environmental**
  - **Temperature:** IEC 68-214
  - **Vibration:** IEC 68-2-36, IEC 68-2-6
  - **Shock:** IEC 68-2-29
  - **Drop:** ISTA 2A
  - **Acoustic Level:** 62dB @ 27°C
  - **RoHS-6 Compliant**
  - **Country of Origin:** Taiwan (TAA Compliant)

### Warranty

Please check www.edge-core.com for the warranty terms in your country. The warranty provides return-to-factory hardware replacement for a three year period in North America.

### For More Information

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

### About Edge-Core Networks

Edge-Core Networks is in the business of providing innovative network solutions. In the service provider network, in the data center or in the cloud, Edge-Core Networks delivers the software and systems that transform the way the world connects.

Edge-Core Networks serves customers and partners worldwide. Additional information can be found at www.edge-core.com.

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

To purchase Edgecore solutions, please contact your Edge-Core Network representatives at +886 3 563 8888 (HQ) or +1 (877) 828-CORE (877-828-2673) or authorized resellers.

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