AS5912-54X Switch
Data Center and Service Provider Edge Switch
Bare Metal Hardware

Product Overview
The Edgecore AS5912-54X switch meets the high-performance, availability, and network-scaling requirements of cloud data centers and carrier access providers. The AS5912-54X provides switching at Layer 2 or Layer 3 across 48 x 10 GbE ports and 6 x 100 G uplinks. The switch can be deployed either as a Top-of-Rack switch, as part of a 100 GbE or 40 GbE distributed spine, forming a non-blocking folded-Clos data center fabric, or as a carrier access switch. The switch is rack mountable in either a standard 19 inch rack, or with an Open Rack Switch Adapter in a 21-inch Open Rack.

The AS5912-54X hardware provides high-availability features, including: redundant, hot-swappable AC or -48 VDC PSUs, or 12 VDC power input; fans with 5+1 redundant fan modules; and port-to-power or power-to-port airflow options.

Key Features and Benefits
■ Cost-effective, bare-metal switch infrastructure for data center and carrier access.
■ 48 x SFP+ switch ports, supporting 10 GbE (DAC, AOC, 10GBASE-SR/LR) or 1 GbE (1000BASE-T/SX/LX).
■ 6 x 100G QSFP28 ports at front.
■ Expandable packet buffering for carrier access.
■ Layer 2 and/or Layer 3 forwarding of 800 Gbps.
■ Rack mountable in standard 19" racks. Mountable in 21" Open Rack with the Open Rack Switch Adapter.
■ Hot-swappable, load sharing, redundant AC or -48 VDC PSUs. 12 VDC power input option.
■ Hot swappable 5+1 redundant fan modules.
■ Management: Ethernet and console RJ-45 ports; USB storage port.
■ Hardware switch pre-loaded with Open Network Install Environment (ONIE) for automated loading of compatible open source and commercial NOS offerings. Compatible with Open Network Linux (ONL), the open-source, OCP reference NOS. Compatible with OcNOS from IP Infusion. Compatible with future version of SnapRoute FlexSwitch.
# AS5912-54X Product Specifications

## Features

### Ports

**Switch Ports:**
- 48 x SFP+ each supporting 10 GbE or 1 GbE
- 6 x 100G QSFP28 each supporting 1 x 40/100 GbE

**Management Ports on Front Panel:**
- 1 x RJ-45 serial console
- 1 x RJ-45 100/1000BASE-T management port
- 1 x USB Type A storage port

### Key Components

**Switch Silicon:**
- AS5912-54X: Broadcom Qumran-MX BCM88370

**CPU Modules:**
- Intel Rangeley C2538 quad-core 2.4GHz x86 processor
- DDR3 SO-DIMM 8 GB x 2
- mSATA: 32 GB

### Performance

**Switching Capability:** 800 Gbps  
**Forwarding Rate:** 1 Bpps  
**Jumbo Frame:** 9 Kbytes  
**Packet Buffer:** expandable to 6 GB  
**MAC Addresses:** 750 K  
**VLAN IDs:** 4 K  
**L3 Routes:** 750 K expandable to 8 million

### Supported Optics and Cables

**SFP+ Ports:**
- 10GBASE-CR DAC: up to 3 m passive; up to 10 m active  
- 10GBASE-SRL/SR: up to 100/300 m over OM3 MMF  
- 10GBASE-LR: Up to 10 km over SMF  
- 1000BASE-SX, 1000BASE-LX, 100/1000BASE-T

**QSFP+ Ports:**
- 40GBASE-CR4 DAC: up to 3 m passive; up to 10 m active  
- 40GBASE-CR4 DAC to 4 x SFP+ 10GBASE-CR DAC: up to 3 m passive; up to 10 m active  
- 40GBASE-SR4: Up to 100 Gbps short reach transceiver  
- 100GBASE-LR4: 100 Gbps long reach transceiver  

**QSFP28 AOC Cable:**
- 100 Gbps to 100 Gbps AOC cable with upto 30 M

### Software

Switch is loaded with Open Network Install Environment (ONIE) software installer  
Compatible with the following NOS options:  
- Open Network Linux (ONL), the open-source, OCP reference NOS  
- OcNOS from IP Infusion  
- Future version of SnapRoute FlexSwitch

### Carrier Access Features

Carrier Access switch with expandable packet buffering  
Carrier feature support MPLS

### Power

PSUs: 2 redundant, load-sharing, hot-swappable AC or -48 VDC  
AC input range: 90 V~300 VAC (90~ 277 VAC is minimum)  
DC input range: -36~ -72 VDC  
Power Input Option: 12 VDC  
Redundant, current sharing, PG  
Environmental Criteria: -5 ~ 55°C

### Regulatory

**EMI**
- CE Mark  
- EN55022 Class A  
- EN55024  
- EN61000-3-2  
- EN61000-3-3  
- FCC Part 15 Subpart B Class A  
- VCCI Class A  

**Safety**
- CB  
- UL/CUL

**Environmental:**
- Temperature: IEC 68-2-14  
- Vibration: IEC 68-2-36, IEC 68-2-6  
- Shock: IEC 68-2-29  
- Drop: ISTA 2A  
- Acoustic Level: 62 dB@ 27°C  
- RoHS-6 Compliant  

**WEEE Standards:** The switches complied with the following WEEE standards: Waste Electrical and Electronic Equipment (WEEE Directive 2002/96/EC)

### Warranty

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

Switch is loaded with Open Network Install Environment (ONIE) software installer

Compatible with the following NOS options:
- Open Network Linux (ONL), the open-source, OCP reference NOS
- OcNOS from IP Infusion
- Future version of SnapRoute FlexSwitch

Carrier Access Features
- Carrier Access switch with expandable packet buffering
- Carrier feature support MPLS

Power
- PSUs: 2 redundant, load-sharing, hot-swappable AC or -48 VDC
- AC input range: 90 V~300 VAC (90~277 VAC is minimum)
- DC input range: -36~-72 VDC
- Power Input Option: 12 VDC
- Redundant, current sharing, PG

Environmental Criteria:
- -5 ~ 55°C

Regulatory
- EMI
  - CE Mark
  - EN55022 Class A
  - EN55024
  - EN61000-3-2
  - EN61000-3-3
  - FCC Part 15 Subpart B Class A
  - VCCI Class A

Safety
- CB
- UL/CUL

Environmental:
- Temperature: IEC 68-2-14
- Vibration: IEC 68-2-36, IEC 68-2-6
- Shock: IEC 68-2-29
- Drop: ISTA 2A
- Acoustic Level: 62 dB@ 27°C

RoHS-6 Compliant

WEEE Standards: The switches complied with the following WEEE standards: Waste Electrical and Electronic Equipment (WEEE Directive 2002/96/EC)

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.

© Copyright 2017 Edgecore Networks Corporation. The information contained herein is subject to change without notice. This document is for informational purposes only and does not set forth any warranty, expressed or implied, concerning any equipment, equipment feature, or service offered by Edgecore Networks Corporation. Edgecore Networks Corporation shall not be liable for technical or editorial errors or omissions contained herein.