

AS5912-54X

Data Center Top-of-Rack and Carrier Access/Aggregation 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/aggregation switch. The switch is rack mountable in a standard 19 inch rack.

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

Key Features and Benefits

- Cost-effective, data center top-of-rack and carrier access/aggregation switch.
- 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.
- Rack mountable in standard 19" racks.
- Hot-swappable, load sharing, redundant AC or -48 VDC PSUs.
- Hot swappable 5+1 redundant fan modules.
- Management: Ethernet and console RJ-45 ports.
- 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).
- Compatible with OcNOS from IP Infusion.
- Compatible with CNOS from Infinera

Data Center Switch

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:

Broadcom Qumran MX BCM88370

CPU Modules:

- Intel Rangeley C2538 4C 2.4GHz Processor
- DDR3 SO-DIMM 8 GB x 2
- mSATA: 32 GB

Performance

- Switching Capability: 800 Gbps
- Forwarding Rate: 1.6 Bpps
- Jumbo Frame: 9 Kbytes
- 16MB on-chip buffering
- Deep DRAM buffering: 6 GB

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
- 10GBASE-ER: Up to 40 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 m over OM3 MMF, 150 m over OM4 MMF
- 40GBASE-LR4: Up to 10 km over SMF
- 100GBASE-SR4: 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 100G
- QSFP28 DAC Cable: 100GBASE-CR4 100 Gbps to 100Gbps Twinax DAC Cable

Physical and Environmental

- Dimensions (WxDxH): 44 x 54.8 x 4.4 (17.32 x 21.57 x 1.73 inch)
- Weight: 9.34 kg (20.59 lb), with two installed PSU modules
- Fans: hot-swappable 5+1 redundant fans
- Operating Temperature: 0°C to 40°C (32°F to 104°F)
- Storage Temperature: -40°C to 70°C (-40°F to 158°F)
- Operating Humidity: 5% to 95% non-condensing

Software

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

Compatible with the following NOS options:

- Open Network Linux (ONL)
- OcNOS from IP Infusion
- CNOS from Infinera

Power

- PSUs: 2 redundant, load-sharing, hot-swappable AC or -48 VDC
- AC input range: 90 V ~ 240 VAC
- DC input range: -36 ~ -72 VDC

Regulatory

EMI

- CE Mark
- EN55032 Class A
- EN55024
- EN61000-3-2
- EN61000-3-3
- FCC Part 15 Subpart B Class A
- VCCI Class A
- BSMI

Safety

- CB
- UL/CUL

Environmental:

- NEBS Level 1

RoHS 2.0 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.

Ordering Information

Base Model: AS5912-54X; 48-Port 10G QSFP+ with 6 x 100G QSFP28 uplinks; ONIE software installer

Model Number	CPU Module	PSU	Airflow	Region (power cord)
5912-54X-O-AC-F-US	Intel Rangeley C2538 processor	dual AC PSUs	port-to-power airflow	N. America
5912-54X-O-AC-B-US	Intel Rangeley C2538 processor	dual AC PSUs	power-to-port airflow	N. America
5912-54X-O-AC-F-EU	Intel Rangeley C2538 processor	dual AC PSUs	port-to-power airflow	Europe
5912-54X-O-AC-B-EU	Intel Rangeley C2538 processor	dual AC PSUs	power-to-port airflow	Europe
5912-54X-O-AC-F-UK	Intel Rangeley C2538 processor	dual AC PSUs	port-to-power airflow	UK
5912-54X-O-AC-B-UK	Intel Rangeley C2538 processor	dual AC PSUs	power-to-port airflow	UK
5912-54X-O-AC-F-JP	Intel Rangeley C2538 processor	dual AC PSUs	port-to-power airflow	Japan
5912-54X-O-AC-B-JP	Intel Rangeley C2538 processor	dual AC PSUs	power-to-port airflow	Japan
5912-54X-O-48V-F	Intel Rangeley C2538 processor	-48V DC PSUs	port-to-power airflow	
5912-54X-O-48V-B	Intel Rangeley C2538 processor	-48V DC PSUs	power-to-port airflow	

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 2019 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.