

## Data Center Switch

AS5812-54X



The Edgecore DCS208 switch meets the high-performance, availability, and network-scaling requirements of enterprise and cloud data centers. The DCS208 provides full line-rate switching at Layer 2 or Layer 3 across 48 x 10GbE ports and 6 x 40GbE uplinks. The switch can be deployed either as a top-of-rack switch, or as part of a 10GbE or 40GbE distributed spine, forming a non-blocking folded-Clos data center fabric. The switch is rack mountable in either a standard 19 inch rack, or with the Open Rack Switch Adapter in the 21 inch Open Rack.

The DCS208 hardware provides the high availability features required for data center operation, including redundant, hot-swappable AC or -48 VDC PSUs or 12 VDC power input; 4+1 redundant fan modules; and front-to-back or back-to-front airflow options. The DCS208 is an ideal top-of-rack switch for virtualized data centers, with its support of VXLAN and NVGRE tunneling functions in hardware. This open network switch is loaded with the Open Network Install Environment (ONIE), which supports the installation of compatible Network Operating System software, including the open source options, plus commercial NOS offerings.

### Key Features and Benefits

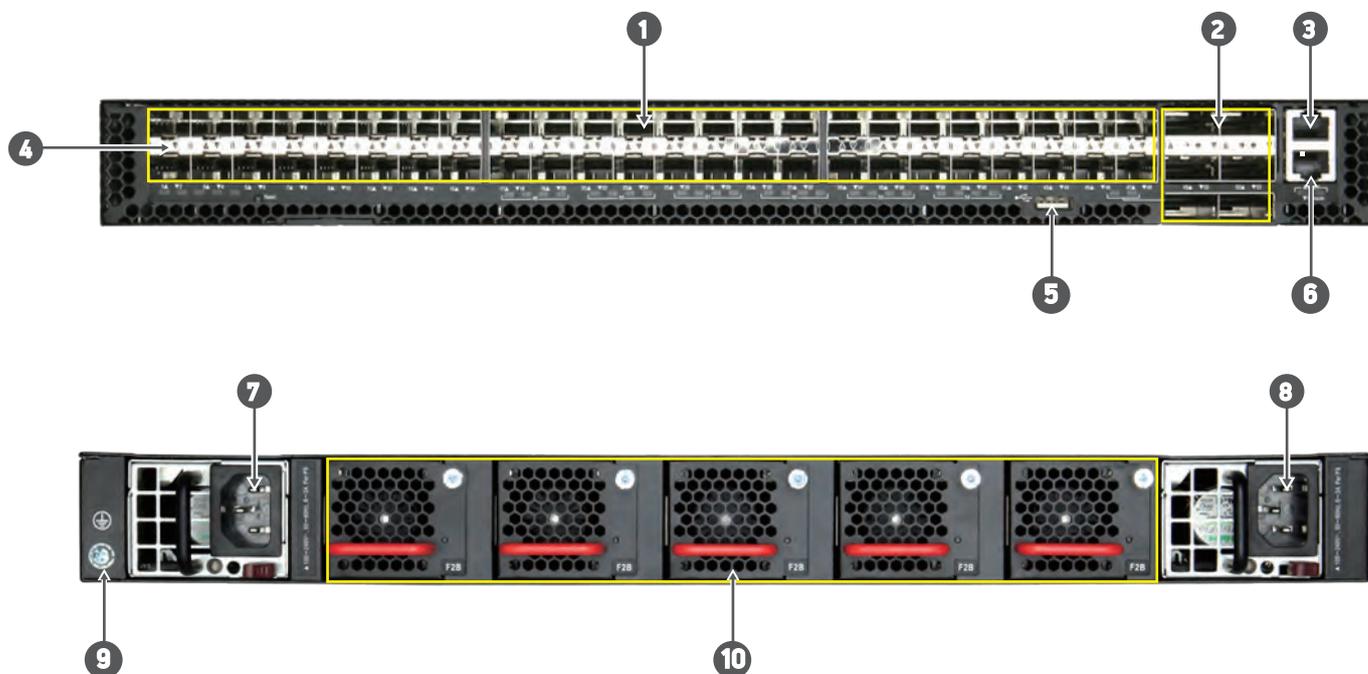
- 48 x SFP+ switch ports, supporting 10GbE (DAC, 10GBASE-SR/LR) or 1GbE (1000BASE-T/SX/LX).
- 6 x 40G QSFP switch ports, each supporting 40GbE (DAC, 40GBASE-SR4/LR4) or 4 x 10GbE (DAC or fiber breakout cable).
- Port Grouping to group 4 x 10G ports into one 40G port at the physical layer for maximum bandwidth utilization, and for 300 m optical reach over MMF (Subject to NOS options).
- VXLAN and NVGRE tunneling support in hardware for network virtualization.
- Rack mountable in standard 19" racks. Mountable in 21" Open Rack with the Open Rack Switch Adapter.
- Supports hot/cold aisle with front-to-back or back-to-front airflow SKUs.
- All ports on front; PSUs, fan modules on rear.
- Hot-swappable, load sharing, redundant AC or -48 VDC PSUs. 12 VDC power input option.
- Hot-swappable 4+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.



## Free Software Included



## Interfaces



### Description

- |                               |                                      |
|-------------------------------|--------------------------------------|
| 1. 48 x 10G SFP+ ports        | 6. RJ-45 console port                |
| 2. 6 x 40G QSFP+ uplink ports | 7. PSU 2                             |
| 3. RJ-45 management port      | 8. PSU 1                             |
| 4. Port LED indicators        | 9. Grounding point                   |
| 5. USB storage port           | 10. Hot-swappable 4+1 redundant fans |

## Ports

- Switch Ports:
  - 48 x SFP+ each supporting 10GbE or 1GbE
  - 6 x QSFP each supporting 40GbE or 4 x 10GbE
- Management Ports on Front Panel:
  - 1 x RJ-45 serial console
  - 1 x RJ-45 100/1000BASE-T management
  - 1 x USB Type A storage port
- Supported Transceivers and Cables:
  - 10GBASE-RJ45/SRI/LRI/ERI/ZRI/ER-DW-Cxy/ER-DW-Cxy-I/ZR-DW-Cxy/ZR-DW-Cxy-I
  - 10G-DAC/AOC Cable
  - 40GBASE-SR4/LR4/PSM4
  - 40G-DAC/AOC Cable
  - Note: More optics and detailed cabling information can be found at [www.edge-core.com](http://www.edge-core.com).

## Key Components

- Switch Silicon: Broadcom BCM56864 Trident 2+
- CPU Modules:
  - Intel® Atom® C2538 4-Core 2.4GHz x86 processor
  - 8 GB SO-DIMM DDR3 RAM with ECC
  - 16 MB SPI
  - 32GB mSATA

## Performance

- Switching Capacity: 720 Gbps full duplex
- Forwarding Rate: 424.52 Mpps
- Jumbo frames support up to 9K Bytes
- Packet Buffer Size: 16 MB integrated packet buffer
- Subject to NOS:
  - MAC Address: 32 K min./288 K max.
  - VLAN IDs: 4 K
  - Support 4 K ECMP group
  - IPv4: 16 K min./112 K max. host entries; 16 K LPM entries with TCAM-only mode
  - IPv6: 8 K min./56 K max. host entries; IPv6/64=8K TCAM-only mode

## Physical and Environmental

- Dimensions (WxDxH): 43.84 x 47.3 x 4.34 cm (17.26 x 18.62 x 1.71 in)
- Weight: 8.95 kg (19.73 lb), with two installed PSU modules
- Fans: Hot-swappable 4+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

## LEDs

- 10G SFP+ Port LEDs: Link Speed, Link Status, Activity
- 40G QSFP Port LEDs: Link Status, Activity for 40G status
- 40G QSFP Breakout LEDs: set of 24 LEDs, 4 per QSFP port, show Link, Status, Activity 10G links with 4 x 10G breakout
- Ethernet Management Port LED: Link Status, Activity
- Console Port LED: Link Status
- System LEDs: PSU1, PSU2, Diagnostic, Fans, Locator

## Software

- Switch is loaded with Open Network Install Environment (ONIE) software installer
- Compatible with the following NOS options: Open source options, plus commercial NOS offerings.

## Power

- PSUs: 2 redundant, load-sharing, hot-swappable AC or -48 VDC
  - Input Voltage: 90 to 264 VAC at 50-60 Hz. -48 to -72 VDC.
- Input Current: Max 6 A@100/120 VAC, 3 A@ 200/240 VAC, 10 A@ -72 VDC
- PSU Efficiency: Up to 93% for AC PSUs
- Power input option: 12 VDC
- Max Power: 282 W, with pluggable optics

## Regulatory

- EMI
  - CE Mark (EN55032 Class A)
  - FCC Part 15 Class A
- VCCI
- Safety
  - CB, EN 62368
  - UL
- Environmental:
  - Temperature: IEC 68-2-14
  - Drop: ISTA 2A
  - Vibration: IEC 68-2-36, IEC 68-2-6
  - Shock: IEC 68-2-29
  - Acoustic Noise Level: Target at under 60 dB in 40°C
- RoHS-6 Compliant
- Country of Origin: Taiwan (TAA Compliant)

## Ordering Information

**Base Model: AS5812-54X; Intel® Atom® C2538 processor 4-Core; 48-Port 10G SFP+ with 6x40G QSFP uplinks; ONIE Software Installer.**

Model Number	Part Number	PSU	Airflow	Region (Power Cord)
5812-54X-0-AC-F-US	FP1ZZ5654408A	Dual AC PSUs	Front-to-Back Airflow	N. America
5812-54X-0-AC-B-US	FP1ZZ5654409A	Dual AC PSUs	Back-to-Front Airflow	N. America
5812-54X-0-AC-F-EU	FP1ZZ5654208A	Dual AC PSUs	Front-to-Back Airflow	Europe
5812-54X-0-AC-B-EU	FP1ZZ5654209A	Dual AC PSUs	Back-to-Front Airflow	Europe
5812-54X-0-AC-F-UK	FP1ZZ5654308A	Dual AC PSUs	Front-to-Back Airflow	UK
5812-54X-0-AC-B-UK	FP1ZZ5654309A	Dual AC PSUs	Back-to-Front Airflow	UK
5812-54X-0-AC-F-JP	FP1ZZ5654508A	Dual AC PSUs	Front-to-Back Airflow	Japan
5812-54X-0-AC-B-JP	FP1ZZ5654509A	Dual AC PSUs	Back-to-Front Airflow	Japan
5812-54X-0-48V-F	FP1ZZ5654043A	Dual -48 VDC PSUs	Front-to-Back Airflow	
5812-54X-0-48V-B	FP1ZZ5654045A	Dual -48 VDC PSUs	Back-to-Front Airflow	
5812-54X-0-12V-F	FP1ZZ56540CAA	one 12 VDC power input	Front-to-Back Airflow	
5812-54X-0-12V-B	FP1ZZ56540CCA	one 12 VDC power input	Back-to-Front Airflow	
CPR-4011-4M11	F0TZZ5652003A	400 W AC Power Supply FRU (PSU-AC-400-F)	Front-to-Back Airflow	no power cord
CPR-4011-4M21	F0TZZ5652002A	400 W AC Power Supply FRU (PSU-AC-400-B)	Back-to-Front Airflow	no power cord
UM400D01-01	F0TZZ5654004A	400 W -48 VDC Power Supply FRU (PSU-48V-400-F)	Front-to-Back Airflow	no power cord
UM400D01	F0TZZ5654003A	400 W -48 VDC Power Supply FRU (PSU-48V-400-B)	Back-to-Front Airflow	no power cord
FAN-1U-1x1D-F	F0TZZ5654000A	Fan Tray FRU	Front-to-Back Airflow	
FAN-1U-1x1D-B	F0TZZ5654001A	Fan Tray FRU	Back-to-Front Airflow	
Model Number	Part Number	Description		
58XX-54X-SVC-RTF	REWECECWA008Z	AS5812-54X Annual Hardware Service, post warranty, Return-to-Factory		
RKIT-L-6712	F0TZZ6632001A	Rack mount kit		
ORSA-1U	F0TZZ5654002A	Open Rack Switch Adapter, for mounting standard 19 inch form factor 1U switches into 21 inch Open Rack		

### For More Information

To find out more about Edgecore Networks Corporation products and solutions, visit [www.edge-core.com](http://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](http://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.

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