

## Data Center Switch

AS5812-54T



The Edgecore DCS209 switch meets the high-performance, availability, and network-scaling requirements of enterprise and cloud data centers. The DCS209 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 DCS209 hardware provides the high-availability features required for data center operation, including; redundant, hot-swappable AC power input, 4+1 redundant fan modules, and port-to-power or power-to-port airflow options. The DCS209 is an ideal Top-of-Rack switch for virtualized data centers, with its support of VXLAN and NVGRE tunneling functions in hardware, leveraging existing Cat 5e/Cat 6/Cat 6A/Cat 7 cabling infrastructure that saves further investment. 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

- Cost-effective, open network switch for data center fabric.
- 48 x RJ-45 Copper, supporting 10GBASE-T, 1000BASE-T and 100BASE-TX Ethernet on Cat 6, Cat 6 A and Cat 7 twisted-pair cable.
- 48 x RJ-45 Copper, supporting 1000BASE-T and 100BASE-TX on Cat 5e UTP, Cat 6, Cat 6A and Cat 7 twisted-pair cable.
- 6 x 40 QSFP switch ports, each supporting 40GbE (DAC, 40GBASE-SR4/LR4) or 4 x 10GbE (DAC or fiber breakout cable).
- Hot-swappable, load sharing, redundant AC PSUs power input option.
- 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 port-to-power and power-to-port airflow SKUs.
- All ports on front; PSUs, fan tray on rear.
- Hot swappable 4+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.



Freedom  
of choice



Greater  
control



Rapid  
innovation

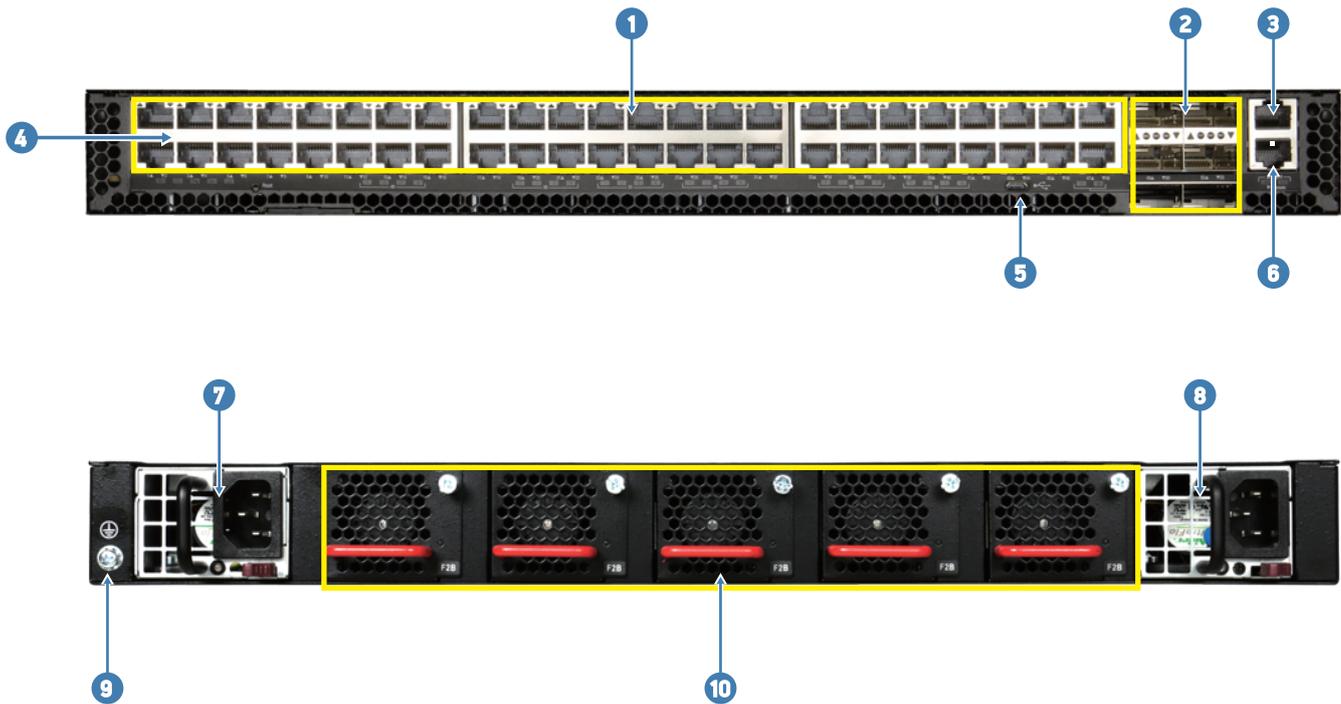


Reduced  
CAPEX and OPEX

## Free Software Included

onie

## Interfaces



### Description

- |                          |                                      |
|--------------------------|--------------------------------------|
| 1. 48 x 10G SFP+ ports   | 6. RJ-45 console port                |
| 2. 6 x 40G QSFP+ 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 RJ-45 Copper each supporting 10GbE, 1GbE or 100 Mbps
  - 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

### Key Components

- Switch Silicon: Broadcom BCM56864 Trident2+
- CPU Modules:
  - Intel® Atom® C2538 quad-core 2.4 GHz x86 processor
  - 8 GB SO-DIMM DDR3 RAM with ECC
  - 16 MB SPI NOR Flash
  - 8 GB NAND flash
  - Reserve mSATA connector

### Performance

- Switching Capacity: 1.44 Tbps full duplex
- Forwarding Rate: 1 Bpps
- Jumbo frames support up to 9216 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

### Supported Optics and Cables

- RJ45 Copper ports:
  - 10GBASE-T on Cat 6, Cat 6A and Cat 7 twisted-pair cable
  - 1000BASE-T and 100BASE-TX on Cat 5e UTP, Cat 6, Cat 6A and Cat 7 twisted-pair cable.
- QSFP Ports:
  - 40GBASE-CR4 DAC; 0.5 m to 7 m; passive and active
  - 40GBASE-CR4 DAC to 4 x SFP+ 10GBASE-CR DAC; up to 5 passive; up to 10m active
  - 40GBASE-SR4: Up to 100 m over OM3 MMF, 150 m over OM4 MMF
  - 40GBASE-SR4 to 6 x 10GBASE-SR: 100 m over OM3, 150 m OM4
  - 40GBASE-LR4: Up to 10 km over SMF

### Physical and Environmental

- Dimensions (WxDxH): 47.3 x 44.25 x 4.39 cm (18.6 x 17.4 x 1.71 in)
- Weight: 9.5 kg (20.94 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 4x10G 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
- Maximum Power Consumption: 348 W

### Regulatory

- EMI
  - CE Mark (EN55022 Class A)
  - FCC Part 15 Class A
  - VCCI
- Safety
  - CB, EN 60950
  - UL/CUL
- Environmental:
  - Temperature: IEC 68-2-14
  - Vibration: IEC 68-2-6
  - Shock: IEC 68-2-29
  - Acoustic Noise Level: Under 63dB in normal temperature (23±5°) (AC Version)
- RoHS-6 Compliant

### Warranty

Please check [www.edge-core.com](http://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](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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## Ordering Information

**Base Model: AS5812-54T; Intel® Atom® C2538 processor; 48-Port 10GBASE-T with 6x40G QSFP uplinks; ONIE software installer**

| Model Number       | Part Number   | PSU  | Airflow               | Region (power cord) |
|--------------------|---------------|--|-----------------------|---------------------|
| 5812-54T-O-AC-F-US | FP1ZZ5654406A | dual AC PSUs   | port-to-power airflow | N. America          |
| 5812-54T-O-AC-B-US | FP1ZZ5654407A | dual AC PSUs   | power-to-port airflow | N. America          |
| 5812-54T-O-AC-F-EU | FP1ZZ5654206A | dual AC PSUs   | port-to-power airflow | Europe              |
| 5812-54T-O-AC-B-EU | FP1ZZ5654207A | dual AC PSUs   | power-to-port airflow | Europe              |
| 5812-54T-O-AC-F-UK | FP1ZZ5654306A | dual AC PSUs   | port-to-power airflow | UK                  |
| 5812-54T-O-AC-B-UK | FP1ZZ5654307A | dual AC PSUs   | power-to-port airflow | UK                  |
| 5812-54T-O-AC-F-JP | FP1ZZ5654506A | dual AC PSUs   | port-to-power airflow | Japan               |
| 5812-54T-O-AC-B-JP | FP1ZZ5654507A | dual AC PSUs   | power-to-port airflow | Japan               |
| CPR-4011-4M11      | F0TZZ5652003A | 400 W AC Power Supply FRU (PSU-AC-400-F)                             | port-to-power airflow | no power cord       |
| CPR-4011-4M21      | F0TZZ5652002A | 400 W AC Power Supply FRU (PSU-AC-400-B)                             | power-to-port airflow | no power cord       |
| UM400D01-01        | F0TZZ5654004A | 400 W -48 VDC Power Supply FRU (PSU-48V-400-F)                       | port-to-power airflow | no power cord       |
| UM400D01           | F0TZZ5654003A | 400 W -48 VDC Power Supply FRU (PSU-48V-400-B)                       | power-to-port airflow | no power cord       |
| FAN-1U-1x1D-F      | F0TZZ5654000A | Fan Tray FRU   | port-to-power airflow |                     |
| FAN-1U-1x1D-B      | F0TZZ5654001A | Fan Tray FRU   | power-to-port airflow |                     |
| Model Number       | Part Number   | Description  |                       |                     |
| 58xx-54T-SVC-RTF   | REWECECWA007Z | AS5812-54T Annual Hardware Service, post warranty, Return-to-Factory |                       |                     |