

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.

Key Features and Benefits

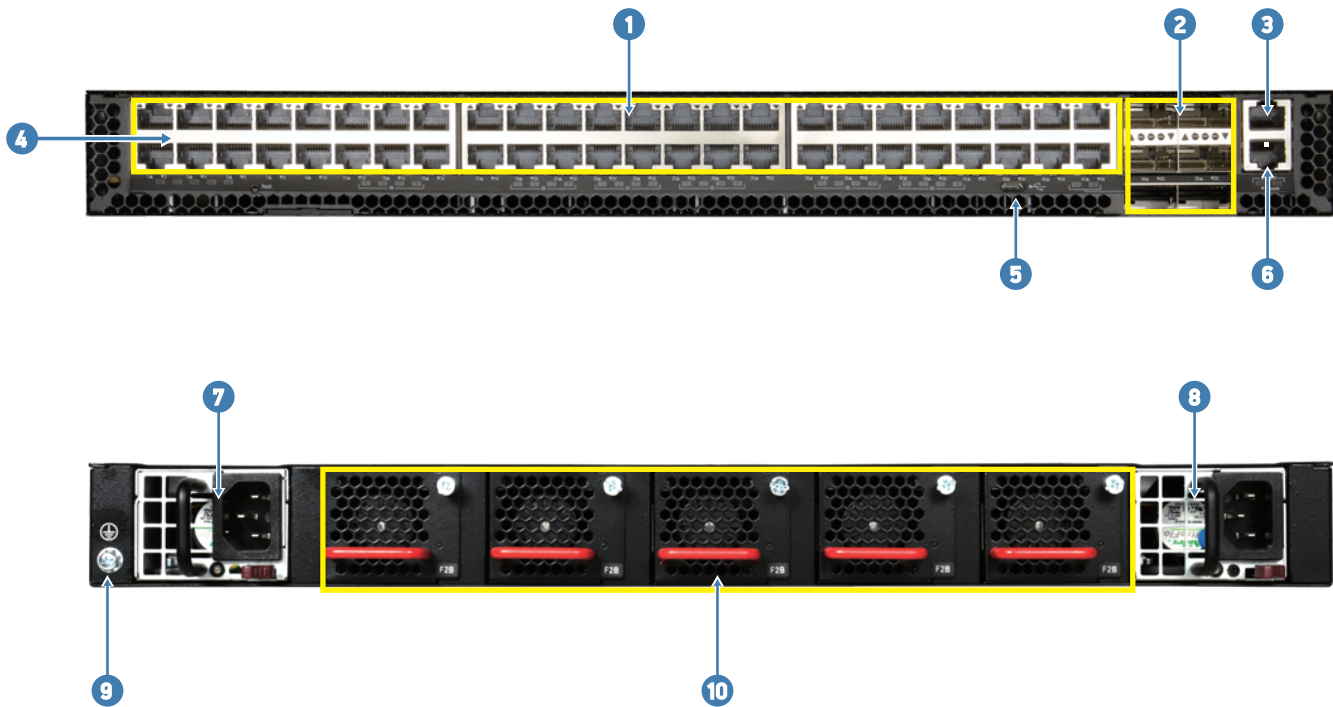
- Cost-effective, open network switch for data center fabric.
- 48 x RJ-45 Copper, supporting 10GBASE-T, 1000BASE-T and 100BASE-TX Ethernet on Cat 6, Cat 6 A and Cat 7 twisted-pair cable.
- 48 x RJ-45 Copper, supporting 1000BASE-T and 100BASE-TX on Cat 5e UTP, Cat 6, Cat 6A and Cat 7 twisted-pair cable.
- 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.
- Compatible with Open Network Linux (ONL), the open-source, OCP reference NOS.



Software Supported



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 Network Linux (ONL)

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 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.

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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		