DCS209 Data Center Switch

Edge-corE NETWORKS

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 front-to-back or back-to-front 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 (NOS) software, including the open source options, plus commercial NOS offerings.

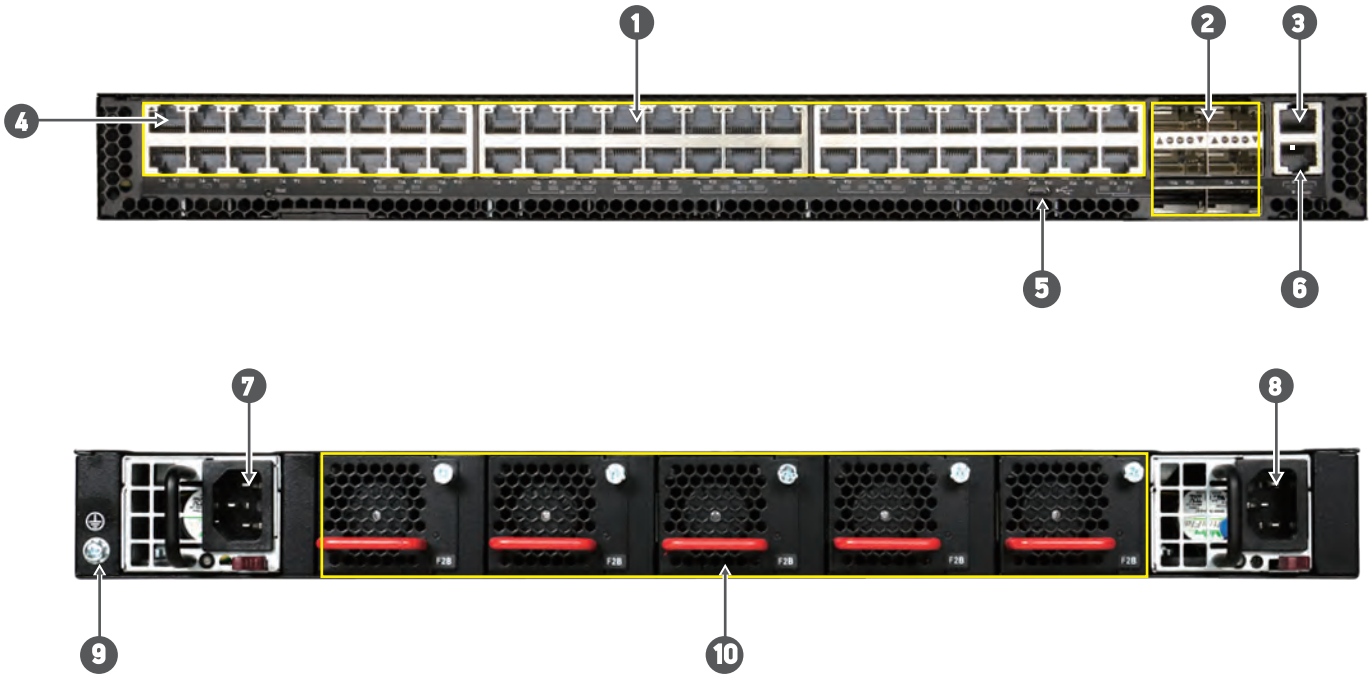
Key Features and Benefits

- 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.
- 6 x 40G 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 front-to-back or back-to-front 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 commerical NOS offerings.

Freedom of choice | Greater control | Rapid innovation

Free Software Included

Interfaces



Description			
1.	48 x 10GBASE-T 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
- Supported Transceivers and Cables:
  RJ-45 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.
  40GBASE-SR4/LR4/PSM4
  40G-DAC/AOC Cable
  - Note: More optics and detailed cabling information can be found at www.edge-core.com.

Key Components
- Switch Silicon: Broadcom BCM56864 Trident II+ 720G
- CPU Modules:
  Intel® Atom® C2538 4-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: 720 Gpbs full duplex
- Forwarding Rate: 424.58 Mpps
- 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

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
- 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
  FCC Part 15 Class A
  VCCI
- Safety
  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.

Ordering Information

Base Model: AS5812-54T; Intel® Atom® C2538 processor 4-Core; 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	Front-to-Back Airflow	N. America
5812-54T-O-AC-B-US	FP1ZZ5654407A	Dual AC PSUs	Back-to-Front Airflow	N. America
5812-54T-O-AC-F-EU	FP1ZZ5654206A	Dual AC PSUs	Front-to-Back Airflow	Europe
5812-54T-O-AC-B-EU	FP1ZZ5654207A	Dual AC PSUs	Back-to-Front Airflow	Europe
5812-54T-O-AC-F-UK	FP1ZZ5654306A	Dual AC PSUs	Front-to-Back Airflow	UK
5812-54T-O-AC-B-UK	FP1ZZ5654307A	Dual AC PSUs	Back-to-Front Airflow	UK
5812-54T-O-AC-F-JP	FP1ZZ5654506A	Dual AC PSUs	Front-to-Back Airflow	Japan
5812-54T-O-AC-B-JP	FP1ZZ5654507A	Dual AC PSUs	Back-to-Front Airflow	Japan
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	