AS4610 Series
1 GbE Data Center and Enterprise Switch
Bare-Metal Hardware

Design Contributed to Open Compute Project

Product Overview

The Edgecore AS4610 series is a high-performance Gigabit Ethernet Layer 3 switch family featuring 54 ports; 48 10/100/1000BASE-T ports, 4 x 10G SFP+ uplink ports, and 2 x 20G QSFP+ stacking ports (Stacking capability subject to NOS implementations).

The AS4610-54T is ideal as a data center top-of-rack switch or IPMI (Intelligent Platform Management Interface) switch, it includes redundant hot-swappable AC PSUs and port-to-power or power-to-port (AS4610-54T v1 only) airflow.The AS4610-54P v1 fully supports IEEE 802.3at and IEEE 802.3af Power-over-Ethernet (PoE). The AS4610-54P v1 is an ideal for campus networking and able to provide up to 30 Watts of power per port to attached devices (eight ports support UPoE up to 60 W per port), such as VoIP phones, wireless access points, surveillance cameras etc, fully utilizing existing Cat. 5 cable infrastructure.

Key Features and Benefits

- Cost-effective, bare-metal infrastructure for data center racks.

- 1 GbE connections to server and storage nodes in rack, with 10 GbE uplinks to spine network.

- PoE models ideal for enterprise, hospitality, warehouse applications interconnecting security, camera, WiFi devices.

- 48 x 10/100/1000BASE-T RJ-45 ports.

- 4 x SFP+ uplink ports, supporting 10 GbE (DAC, 10GBASE-SR/LR/ER/LRM) or 1 GbE (1000BASE-T/SX/LX).

- Full line-rate L2 or L3 forwarding and switching.

- Energy efficiency: Maximum 99.1 W system power consumption excluding PoE power consumption.

- Hot-swappable, load-sharing, redundant AC PSUs.

- Hardware switch pre-loaded with Open Network Install Environment (ONIE) for automated loading of compatible open source and commerical NOS offerings.

- Compatible with Cumulus® Linux® r2.5.4 and later version from Cumulus Networks®. (AS4610-54T v1 and AS4610-54P v1 only)

- Compatible with PicOS™ r2.6.2 and later version from Pica8 Inc.

- Compatible with FlexSwitch softwer from SnapRoute.

Data Center Switch

snaproute **PICOS** POWERED BY PICA8 **CUMULUS**

For a world always connected...

Features

Product Model	AS4610-54T v1/ AS4610-54T (B)	AS4610-54P v1
Product Image		
Port		
RJ-45 10/100/1000 Ports	48	48
10G SFP+ Uplink Ports	4	4
20G QSFP+ Stacking Ports	2	2
PoE Ports	X	48
Micro USB Console Port	O	O
Performance		
Switching Capacity	128 Gbps	128 Gbps
Forwarding Rate	191 Mpps	191 Mpps
Memory	2 G	2 G
SPI Flash	8 MB	8 MB
NAND Flash	8 GB	8 GB
MAC Address Table	96 K	96 K
Jumbo Frames	12 KB	12 KB
PoE		
IEEE 802.3af (15 W)	X	48
IEEE 802.3at (30 W)	X	48
UPoE (60 W)	X	8
PoE Power Budget	X	1650 W
Mechanical		
Rack Space	19"	19"
Dimension (W x D x H) cm	44 x 35 x 4.5	44 x 35 x 4.5
Weight	5.38 kg/ 5.53 kg	6.36 kg
Power Supply		
100-240 VAC, 50-60 Hz	O	O
Max System Power Consumption (Watts)	92.2 W	99.1 W
Environmental		
Operating Temperature	0 ~ 45°C	0 ~ 45°C
Operating Humidity (non-condensing)	5% to 95%	5% to 95%
Environmental Regulation compliance: WEEE	O	O
Environmental Regulation compliance: RoHS	O	O
Certification		
FCC Class A	O	O
CE	O	O
Safety Compliance: CB	O	O
Safety Compliance: UL	O	O
CCC	O	O
BSMI	O	O

Features

Ports

Switch Ports:
- 48 x RJ-45 100/1000BASE-T ports
- 4 x 10G SFP+ ports supporting 10G or 1G
- 2 x 20G QSFP+ Stacking Port (requires NOS to support hardware stacking feature)
- 1 x RJ-45 serial console
- 1 x RJ-45 100/1000BASE-T management port
- 1 x Micro-USB to USB Type A storage port

Key Components

- Switch Silicon: Broadcom BCM56340 Helix4
- CPU: Dual-core ARM Cortex A9 1 GHz
- Memory: 2 GB DDR3 SDRAM ECC
- Flash: 8 MB SPI Flash, 8 GB NAND Flash

Performance

- Wire Speed Forwarding: L2 and L3
- Switching Capacity: 128 Gbps
- Forwarding Rate: 131 Mpps
- MAC Addresses: up to 96 K
- VLAN IDs: 4K
- Jumbo Frames: Up to 12 KB
- L3 Entry: IPv4/IPv6 96 k/48 k Unicast, 48 k/24 k Multicast
- Packet Buffer Size: 4 MB shared buffer pool

Supported Optics and Cables

GE RJ-45 Ports: Cat 5/5e/6 up to 100 m
SFP+ Ports:
- 10GBASE-CR DAC; 0.5 m to 7 m
- 10GBASE-SRL/SR; up to 100/300 m over OM3 MMF
- 10GBASE-LR; up to 10 km over SMF
- 1000BASE-SX, 1000BASE-LX, 100/1000BASE-T

QSFP Port on Optional Module:
- 40GBASE-CR4 DAC; 0.5 m to 7 m
- 40GBASE-SR4; up to 100 m over OM3 MMF, 150 m over OM4 MMF
- 40GBASE-SR4 to 4x10GBASE-SR; 100 m over OM3, 150 m OM4
- 40GBASE-LR4; up to 10 km over SMF

LEDs

- GE RJ-45 SFP+ Port LEDs: Link Speed, Link Status, Activity
- 10G SFP+ Port LEDs: Link Speed, Link Status, Activity
- Ethernet Management Port LED: Link Status, Activity
- System LEDs: PRI, PSU1, PSU2, STK1, STK2, FAN, PoE

Physical and Environmental

Dimensions (HxWxD): 4.5 x 44 x 35 cm (1.7 x 17.3 x 16.1") 1 RU
Weight
- AS4610-54T v1: 5.38 kg (11.86 lb)
- AS4610-54T(B): 5.53 kg (12.19 lb)
- AS4610-54P v1: 6.36 kg (14.02 lb)

Fans:
- AS4610-54T v1: PSU fans
- AS4610-54P v1: System fan and PSU fans
- AS4610-54T(B): 2 fans: Back-to-front direction

Operating Temperature: 0°C to 45°C
Storage Temperature: -40°C to 70°C
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:
AS4610 series:
- PicOS r2.6.2 and later version from Pica8 Inc
- FlexSwitch softwer from SnapRoute

AS4610-54T v1 and AS4610-54P v1:
- Cumulus Linux r2.5.4 and later version from Cumulus Networks

Power

- PSUs: 2 redundant, load-sharing, hot-swappable AC
- Input Voltage: 90 to 264 VAC at 50-60 Hz.
- Input Current: Max 13 A@100/120 VAC, 3 A@200/240 VAC
- Typical Power consumption (under line-rate, 48 x 1 GbE Cat 6, 4 x 10GBASE-SR test condition):
  - AS4610-54T v1/AS4610-54P v1: 117 W

Regulatory

EMI:
- CE Mark (EN55022 Class A)
  - FCC Part 15 Class A
  - VCCI Class A
- CCC GB9254-2008 (AS4610-54P v1 only)
- BSMI (CNS13438)
- Australia RCM
- Vietnam MIC (AS4610-54T (B) only)
- Korea
- Brazil (AS4610-54T (B) only)

Environmental:
- Temperature: IEC 68-2-14
- Shock: IEC 68-2-29
- Vibration: IEC 68-2-36, IEC 68-2-6
- Drop: ISTA 2A

RoHS-6 Compliant
Safety:
- UL (CSA 22.2 No 60950-1 & UL 60950-1)
- CB (IEC/EN60950-1)
- Mexico NOM (AS4610-54T (B) only)
- CCC (AS4610-54P v1/AS4610-54T (B) only)
- Argentina S-Mark
- BSMI (CNS14336)

Country of Origin: Taiwan (TAA Compliant)

Warranty

Please check www.edge-core.com for the warranty terms in your country.

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Ordering Information

Base Model: AS4610-54T v1/AS4610-54T (B) /AS4610-54P v1 with ONIE software Installer

Model Number	Marketing Description	PSU	Airflow
4610-54T-O-AC-F v1	48-Port GE RJ45 port ONIE SWITCH + 4x10G SFP+, Broadcom Helix 4, Dual-core ARM A9, system fan-less design, 3-year warranty	dual AC PSUs	port-to-power (C2P) airflow
4610-54T-O-AC-B	48-Port GE RJ45 port ONIE SWITCH + 4x10G SFP+, Broadcom Helix 4, Dual-core ARM A9, fixed fans, 3-year warranty	dual AC PSUs	power-to-port (P2C) airflow
4610-54P-O-AC-F v1	48-Port GE RJ45 port PoE+, last 8 ports Ultra-PoE, Broadcom Helix 4, Dual-core ARM A9, fixed fans, 3-year warrant	dual AC PSUs	port-to-power (C2P) airflow
PSU-AC-150W-F	1GbE switch 150W AC power supply C2P air flow		
PSU-AC-150W-B	1GbE switch 150W AC power supply P2C air flow		
PSU-AC-920W-F	1G switch 920W AC power supply C2P air flow		
RKIT-85-4610	Rack mount kit for AS4610-54T		
UPGR-CUM-1G	UPGR-CUM-1G - Cumulus Linux software license for AS4610 1G Ethernet switch. Requires purchase of SUP-4610-XXX		

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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