

AS4610-54T

1GbE Data Center and Enterprise Switch

Bare-Metal Hardware

Design Contributed to Open Compute Project



Product Overview

The Edgecore AS4610-54T is a high-performance Gigabit Ethernet Layer 3 switch family featuring 54 ports; with 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 airflow.


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.
- 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.
- 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 commercial NOS offerings.
- Compatible with Cumulus[®] Linux[®] r2.5.4 and later version from Cumulus Networks[®].
- Compatible with PicoS[™] r2.6.2 and later version from Pica8 Inc.
- Compatible with SnapRoute FlexSwitch software.

Data Center Switch



Features

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

Management Ports: AS4610-54T Front-to-Back

SKUs:

- 1 x Micro-USB serial console
- 1 x RJ-45 100/1000BASE-T management port
- 1 x USB Type A storage port

Management Ports: AS4610-54T-B Back-to-Front

SKU:

- 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 1GHz

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 96K

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

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: 5.38 kg (11.86 lb)

AS4610-54T (B): 5.53 kg (12.19 lb)

Fans:

AS4610-54T: 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:

PicOS r2.6.2 and later version from Pica8 Inc

Cumulus Linux r2.5.4 and later version from Cumulus Networks

SnapRoute FlexSwitch software

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): 117 W

Regulatory

EMI:

CE Mark (EN55022 Class A)

FCC Part 15 Class A

VCCI Class A

BSMI (CNS13438)

Australia RCM (AS4610-54T-B only)

Vietnam MIC (AS4610-54T-B only)

Korea (AS4610-54T-B only)

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/AS4610-54T-B only)

Argentina S-Mark (AS4610-54T-B only)

BSMI (CNS14336)

Country of Origin: Taiwan (TAA Compliant)

Warranty

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

Ordering Information

Base Model: AS4610-54T with ONIE software Installer

Model Number	Marketing Description	PSU	Airflow
4610-54T-O-AC-F	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
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		
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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