

AS4610 Series

1 GbE Data Center and Enterprise Switch Bare-Metal Hardware



Product Overview

The Edgecore AS4610 series is a high-performance Gigabit Ethernet Layer 3 switch family featuring 30 or 54 ports; AS4610-30T and AS4610-54T with 24/48 10/100/1000BASE-T ports, 4 x 10G SFP+ uplink ports, and 2 x 20G QSFP+ stacking ports (Stacking capability subject to NOS implementations); AS4610-30P and AS4610-54P with 24/48 10/100/1000BASE-T ports, 4 x 10G SFP+ uplink ports, 2 x 20G QSFP+ stacking ports, plus the 24/48 10/100/1000BASE-T ports fully support IEEE 802.3at and IEEE 802.3af Power-over-Ethernet (PoE).

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 only) airflow. The AS4610-30T, AS4610-30P, and AS4610-54P are ideal for campus networking, with the AS4610-30P and AS4610-54P 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.
- 24/48 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 commercial NOS offerings.
- Compatible with Cumulus® Linux® r2.5.4 and later version from Cumulus Networks®. (AS4610-54T and AS4610-54P only)
- AS4610-54T compatible with OcNOS™ from IP Infusion.
- All AS4610 models are compatible with PicOS™ r2.6.2 and later version from Pica8 Inc.

AS4610 Series Product Specifications

www.edge-core.com

Features

Product Model		AS4610-30T	AS4610-30P	AS4610-54T AS4610-54T (B)	AS4610-54P
Product Image					
Port	RJ-45 10/100/1000 Ports	24	24	48	48
	10G SFP+ Uplink Ports	4	4	4	4
	20G QSFP+ Stacking Ports	2	2	2	2
	PoE Ports	X	24	X	48
	RJ-45 Console Port	O	O	O	O
Performance	Switching Capacity	208 Gbps	208 Gbps	260 Gbps	260 Gbps
	Forwarding Rate	156 Mpps	156 Mpps	191 Mpps	191 Mpps
	Memory	2 G	2 G	2 G	2 G
	SPI Flash	8 MB	8 MB	8 MB	8 MB
	eUSB	32 GB	32 GB	32 GB	32 GB
	MAC Address Table	96 K	96 K	96 K	96 K
	Jumbo Frames	12 KB	12 KB	12 KB	12 KB
PoE	IEEE 802.3af (15 W)	X	24	X	48
	IEEE 802.3at (30 W)	X	24	X	48
	UPoE (60 W)	X	8	X	8
	PoE Power Budget	X	960 W	X	1650 W
Mechanical	Rack Space	19"	19"	19"	19"
	Dimension (W x D x H) cm	44 x 35 x 4.5	44 x 35 x 4.5	44 x 35 x 4.5	44 x 35 x 4.5
	Weight	5.16 kg	6.02 kg	5.38 kg/ 5.53 kg	6.36 kg
Power Supply	100-240 VAC, 50-60 Hz	O	O	O	O
	Max System Power Consumption (Watts)	76.1 W	81.72 W	92.2 W	99.1 W
Environmental	Operating Temperature	0 ~ 45°C	0 ~ 45°C	0 ~ 45°C	0 ~ 45°C
	Operating Humidity (non-condensing)	5% to 95%	5% to 95%	5% to 95%	5% to 95%
	Environmental Regulation compliance: WEEE	O	O	O	O
	Environmental Regulation compliance: RoHS	O	O	O	O
Certification	FCC Class A	O	O	O	O
	CE	O	O	O	O
	Safety Compliance: CB	O	O	O	O
	Safety Compliance: UL	O	O	O	O
	CCC	X	X	X/O	O
	BSMI	O	O	O	O

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Features

Ports

Switch Ports:
24/48 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:
(1) AS4610-30T/P, AS4610-54T/P port-to-power airflow Type
1 x Micro USB serial console
1 x RJ-45 100/1000BASE-T management port
1 x Type-A USB storage port
(2) AS4610-30T/P, AS4610-54T/P port-to-power airflow v1 Type / power-to-port airflow Type
1 x RJ-45 serial console
1 x RJ-45 100/1000BASE-T management port
1 x Micro-USB storage port

Key Components

Switch Silicon:
AS4610-30T/AS4610-30P: Broadcom BCM56342 Helix4
AS4610-54T/AS4610-54P: Broadcom BCM56340 Helix4
CPU: Dual-core ARM Cortex A9 1 GHz
Memory: 2 GB DDR3 SDRAM ECC
Flash: 8 MB SPI Flash, 32GB MLC eUSB

Performance

Wire Speed Forwarding: L2 and L3
Switching Capacity:
AS4610-30T/AS4610-30P: 208 Gbps full duplex
AS4610-54T/AS4610-54P: 260 Gbps full duplex
Forwarding Rate:
AS4610-30T/AS4610-30P: 156 Mpps
AS4610-54T/AS4610-54P: 191 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
AS4610-30T: 5.16 kg (11.37 lb)
AS4610-30P: 6.02 kg (13.27 lb)
AS4610-54T: 5.38 kg (11.86 lb)
AS4610-54T (B): 5.53 kg (12.19 lb)
AS4610-54P: 6.36 kg (14.02 lb)
Fans:
AS4610-30T/AS4610-54T: PSU fans
AS4610-30P/AS4610-54P: 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
AS4610-54T and AS4610-54P v1:
Cumulus Linux r2.5.4 and later version from Cumulus Networks
AS4610-54T compatible with OcNOSTM from IP Infusion

Power

PSUs: 2 redundant, load-sharing, hot-swappable AC
Note: AC PSUs are redundant in terms of system and networking, but not fully redundant in terms of PoE functions and the power budget.
Input Voltage: 100-240 VAC, 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):
AS4610-30T v1/AS4610-30P v1: 100 W
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 only)
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 v1/AS4610-54T -B only)
Argentina S-Mark (AS4610-54T -B only)
BSMI (CNS14336)
Country of Origin: Taiwan (TAA Compliant)

AS4610 Series Product Specifications

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Ordering Information

Base Model: AS4610 Series with ONIE software Installer

Model Number	PSU	Airflow	Storage port	Console port	7-Segment LED	Region (power cord)
4610-54T-O-AC-F-US	dual AC PSUs	port-to-power airfflow	Type A USB	Micro USB	Yes	N. America
4610-54T-O-AC-F-US v1	dual AC PSUs	port-to-power airfflow	Micro USB	RJ45	No	N. America
4610-54T-O-AC-B-US	dual AC PSUs	power-to-port airflow	Micro USB	RJ45	No	N. America
4610-54T-O-AC-F-EU	dual AC PSUs	port-to-power airfflow	Type A USB	Micro USB	Yes	Europe
4610-54T-O-AC-F-EU v1	dual AC PSUs	port-to-power airfflow	Micro USB	RJ45	No	Europe
4610-54T-O-AC-B-EU	dual AC PSUs	power-to-port airflow	Micro USB	RJ45	No	Europe
4610-54T-O-AC-F-UK	dual AC PSUs	port-to-power airfflow	Type A USB	Micro USB	Yes	UK
4610-54T-O-AC-F-UK v1	dual AC PSUs	port-to-power airfflow	Micro USB	RJ45	No	UK
4610-54T-O-AC-B-UK	dual AC PSUs	power-to-port airflow	Micro USB	RJ45	No	UK
4610-54T-O-AC-F-JP	dual AC PSUs	port-to-power airfflow	Type A USB	Micro USB	Yes	Japan
4610-54T-O-AC-F-JP v1	dual AC PSUs	port-to-power airfflow	Micro USB	RJ45	No	Japan
4610-54T-O-AC-B-JP	dual AC PSUs	power-to-port airflow	Micro USB	RJ45	No	Japan
4610-54P-O-AC-F-US	dual AC PSUs	port-to-power airfflow	Type A USB	Micro USB	Yes	N. America
4610-54P-O-AC-F-US v1	dual AC PSUs	port-to-power airfflow	Micro USB	RJ45	No	N. America
4610-54P-O-AC-F-EU	dual AC PSUs	port-to-power airfflow	Type A USB	Micro USB	Yes	Europe
4610-54P-O-AC-F-EU v1	dual AC PSUs	port-to-power airfflow	Micro USB	RJ45	No	Europe
4610-54P-O-AC-F-UK	dual AC PSUs	port-to-power airfflow	Type A USB	Micro USB	Yes	UK
4610-54P-O-AC-F-UK v1	dual AC PSUs	port-to-power airfflow	Micro USB	RJ45	No	UK
4610-54P-O-AC-F-JP	dual AC PSUs	port-to-power airfflow	Type A USB	Micro USB	Yes	Japan
4610-54P-O-AC-F-JP v1	dual AC PSUs	port-to-power airfflow	Micro USB	RJ45	No	Japan
4610-30T-O-AC-F-US	dual AC PSUs	port-to-power airfflow	Type A USB	Micro USB	Yes	N. America
4610-30T-O-AC-F-US v1	dual AC PSUs	port-to-power airfflow	Micro USB	RJ45	No	N. America
4610-30T-O-AC-F-EU	dual AC PSUs	port-to-power airfflow	Type A USB	Micro USB	Yes	Europe
4610-30T-O-AC-F-EU v1	dual AC PSUs	port-to-power airfflow	Micro USB	RJ45	No	Europe
4610-30T-O-AC-F-UK	dual AC PSUs	port-to-power airfflow	Type A USB	Micro USB	Yes	UK
4610-30T-O-AC-F-UK v1	dual AC PSUs	port-to-power airfflow	Micro USB	RJ45	No	UK

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Model Number	PSU	Airflow	Storage port	Console port	7-Segment LED	Region (power cord)
4610-30T-O-AC-F-JP	dual AC PSUs	port-to-power airfflow	Type A USB	Micro USB	Yes	Japan
4610-30T-O-AC-F-JP v1	dual AC PSUs	port-to-power airfflow	Micro USB	RJ45	No	Japan
4610-30P-O-AC-F-US	dual AC PSUs	port-to-power airfflow	Type A USB	Micro USB	Yes	N. America
4610-30P-O-AC-F-US v1	dual AC PSUs	port-to-power airfflow	Micro USB	RJ45	No	N. America
4610-30P-O-AC-F-EU	dual AC PSUs	port-to-power airfflow	Type A USB	Micro USB	Yes	Europe
4610-30P-O-AC-F-EU v1	dual AC PSUs	port-to-power airfflow	Micro USB	RJ45	No	Europe
4610-30P-O-AC-F-UK	dual AC PSUs	port-to-power airfflow	Type A USB	Micro USB	Yes	UK
4610-30P-O-AC-F-UK v1	dual AC PSUs	port-to-power airfflow	Micro USB	RJ45	No	UK
4610-30P-O-AC-F-JP	dual AC PSUs	port-to-power airfflow	Type A USB	Micro USB	Yes	JP
4610-30P-O-AC-F-JP v1	dual AC PSUs	port-to-power airfflow	Micro USB	RJ45	No	JP

Model Number	Description
4610-54T-SVC-RTF	AS4610-54T Annual Hardware Service, Return-to-Factory-- option for after warranty period
RKIT-85-4610	Rack mount kit (for AS4610-54P/ AS4610-54T/ AS4610-30P/ AS4610-30T)
CBL-PWR-US	AC Power Cable - US (125 V/13 A, 1830 mm) – only required with spare power supplies
CBL-PWR-EU	AC Power Cable - Europe (250 V/10 A, 1830 mm) – only required with spare power supplies
CBL-PWR-UK	AC Power Cable - UK (250 V/10 A, 1830 mm) – only required with spare power supplies
CBL-PWR-JP	AC Power Cable - Japan – only required with spare power supplies

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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