

AS4600-54T

1GbE Data Center Switch

Bare-Metal Hardware



Product Overview

The Edgecore AS4600-54T is a high-performance Gigabit Ethernet Layer 3 switch, with 48 RJ-45 GbE ports, 4 x 10 GbE SFP+ ports, and two module slots each with 40 GbE bandwidth for additional uplinks. The switch provides the high-availability features required in a data center top-of-rack switch, including redundant hot-swappable AC or -48VDC PSUs, or 12VDC power input; hot-swappable redundant fans, and port-to-power or power-to-port airflow options. The two expansion module slots accept 1 x 40G QSFP modules to provide two 40G ports or eight 10G ports through breakout cables. This additional bandwidth makes the switch ideal for applications mixing 1 GbE and 10 GbE nodes in a rack, or to support 40G uplinks to a spine network.

Key Features and Benefits

- Cost-effective, bare-metal infrastructure for data center racks.
- 1 GbE connection 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).
- 1 x 40G QSFP port on the optional module supports 40 GbE (DAC, 40GBASE-SR4/LR4) or 4 x 10 GbE (DAC or fiber breakout cable).
- Full line-rate L2 or L3 forwarding of 336 Gbps.
- Support hot/cold aisle with port-to-power and power-to-port airflow SKUs.
- Energy efficiency: 122 W typical power consumption.
- Hot-swappable, load-sharing, redundant AC PSUs or -48VDC PSUs; or 12VDC power input.
- Hot-swappable, redundant fans.
- Hardware switch pre-loaded with Open Network Install Environment (ONIE) for automated loading of compatible independent SwitchOS software.
- Compatible with Cumulus®Linux® r2.0 and later SwitchOS software from Cumulus Networks®.
- Compatible with SwitchLight™ v2.1.0 or later from Big Switch Networks.
- Compatible with PicOS™ r2.5 and later version from Pica8 Inc.

Data Center Switch



Features

Ports

Switch Ports:
 48 x RJ-45 100/1000BASE-T ports
 4 x SFP+ ports supporting 10G or 1G
 Management Ports on front (port) side:
 1 x RJ-45 serial console
 1 x RJ-45 100/1000BASE-T management
 1 x USB Type A storage port
 2 optional module slots on rear (power) side, each supporting
 1 x QSFP for 1 x 40 GbE or 4 x 10 GbE through breakout cables

Key Components

Switch Silicon: Broadcom BCM56540 Apollo2
 CPU: Freescale P2020 dual-core 1.0 GHz
 Memory: 2 GB DDR3 SDRAM ECC
 Flash: 8 MB NOR Flash, 1 GB NAND Flash

Performance

Wire Speed Forwarding: L2 and L3
 Switching Capacity: 336 Gbps
 MAC Addresses: up to 176K
 VLAN IDs: 4K
 Jumbo Frames (9216 Bytes)
 L3 Hosts: up to 176K
 L3 Routes IPv4 12K, IPv6 6K
 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-CR4 DAC to 4 x SFP+ 10GBASE-CR DAC; 0.5 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

Physical and Environmental

Dimensions (HxWxD): 4.3 x 44 x 41cm (1.7 x 17.3 x 16.1") 1 RU
 Weight: 8.5 kg (18.73 lbs)
 Fans: 2 hot swappable, redundant fans
 Operating Temperature: 0°C to 40°C
 Storage Temperature: -40°C to 70°C
 Operating Humidity: 5% to 95% non-condensing
 PSUs: 2 redundant, load-sharing, hot-swappable AC or -48VDC
 Input Voltage: 90 to 264 VAC at 50-60 Hz. -48 to -72 VDC.
 Input Current: Max 6A @100/120 VAC, 3 A @200/240 VAC,
 10 A @-72 VDC, 12VDC power input option
 12VDC power input option
 Typical Power: 122 W, line-rate, 48 x 1 GbE Cat 6,
 4 x 10GBASE-SR

Regulatory

EMI:
 CE Mark (EN55022 Class A)
 FCC Part 15 Class A
 VCCI Class A
 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:
 CB, EN60950
 UL/CUL
 CCC
 Country of Origin: Taiwan (TAA Compliant)

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
 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 switchOS software
 Cumulus Linux r2.0 or later
 SwitchLight v2.1.0 or later from Big Switch Networks
 PicoS™ r2.5 and later version from Pica8 Inc.

Warranty

Please check www.edge-core.com for the warranty terms in your country. The warranty provides return-to-factory hardware replacement for a three year period in North America.

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 (877) 828-CORE (877-828-2673) or authorized resellers.

© Copyright 2015 Edgecore Networks Corporation. The information contained herein is subject to change without notice. This document is for informational purposes only and does not set forth any warranty, expressed or implied, concerning any equipment, equipment feature, or service offered by Edgecore Networks Corporation. Edgecore Networks Corporation shall not be liable for technical or editorial errors or omissions contained herein.

Ordering Information

| Base Model: AS4600-54T 48-port GE + 4 x10GE uplinks with ONIE software Installer | | | |
|---|--|-----------------------|----------------------------|
| Model Number | PSU | Airflow | Region (power cord) |
| 4600-54T-O-AC-F-US | dual AC PSUs | port-to-power airflow | N. America |
| 4600-54T-O-AC-B-US | dual AC PSUs | power-to-port airflow | N. America |
| 4600-54T-O-AC-F-EU | dual AC PSUs | port-to-power airflow | Europe |
| 4600-54T-O-AC-B-EU | dual AC PSUs | power-to-port airflow | Europe |
| 4600-54T-O-AC-F-UK | dual AC PSUs | port-to-power airflow | UK |
| 4600-54T-O-AC-B-UK | dual AC PSUs | power-to-port airflow | UK |
| 4600-54T-O-AC-F-JP | dual AC PSUs | port-to-power airflow | Japan |
| 4600-54T-O-AC-B-JP | dual AC PSUs | power-to-port airflow | Japan |
| 4600-54T-O-48V-F | dual 48VDC PSUs | port-to-power airflow | |
| 4600-54T-O-48V-B | dual 48VDC PSUs | power-to-port airflow | |
| 4600-54T-O-12V-F | one 12VDC power input | port-to-power airflow | |
| 4600-54T-O-12V-B | one 12VDC power input | power-to-port airflow | |
| PSU-AC-300-F | 300W AC Power Supply FRU | port-to-power airflow | no power cord |
| PSU-AC-300-B | 300W AC Power Supply FRU | power-to-port airflow | no power cord |
| PSU-48V-300-F | 300W -48V DC Power Supply FRU | port-to-power airflow | |
| PSU-48V-300-B | 300W -48V DC Power Supply FRU | power-to-port airflow | |
| PSU-12V-300 | 12V DC power input unit FRU | | |
| FAN-1U-1x1A-F | Fan Tray FRU | port-to-power airflow | |
| FAN-1U-1x1A-B | Fan Tray FRU | power-to-port airflow | |
| Model Number | Description | | |
| 4600-54T-SVC-RTF | AS4600-54T Annual Hardware Service, Return-to-Factory-- option for after warranty period | | |
| 4600-54T-MOD-40G | AS4600-54T Option Module, 1 x 40G QSFP port | | |
| RKIT-85-4600 | Rack mount kit (for AS4600-54T) | | |
| CBL-PWR-US | AC Power Cable - US (125V/13A, 1830mm) – only required with spare power supplies | | |
| CBL-PWR-EU | AC Power Cable - Europe (250V/10A, 1830mm) – only required with spare power supplies | | |
| CBL-PWR-UK | AC Power Cable - UK (250V/10A, 1830mm) – only required with spare power supplies | | |
| CBL-PWR-JP | AC Power Cable - Japan – only required with spare power supplies | | |