

AS4600-54T 1GbE Data Center Switch Bare-Metal Hardware



Product Overview

The 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 PSUs, 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.
- 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™.

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, 2 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: Two hot-swappable, redundant, 200 W AC, load sharing PSUs
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

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

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 Edge-Core Networks products and solutions, visit www.edge-core.com

About Edge-Core Networks

Edge-Core Networks is in the business of providing innovative network solutions. In the service provider network, in the data center or in the cloud, Edge-Core Networks delivers the software and systems that transform the way the world connects. Edge-Core Networks serves customers and partners worldwide. Additional information can be found at www.edge-core.com.

Edge-Core Networks is a subsidiary of Accton Technology Corporation, the leading network ODM company. The Edge-Core data center switches are developed and manufactured by Accton.

To purchase Edge-Core solutions, please contact your Edge-Core Network representatives at +886 3 563 8888 (HQ) or +1 (877) 828-CORE (877-828-2673) or authorized resellers.

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Ordering Information

4600-54T-O-AC-F-US	AS4600-54T 48-port GE + 4 x10GE uplinks, ONIE software, 2 AC PSUs, port-to-power airflow, N. America power cords
4600-54T-O-AC-B-US	AS4600-54T 48-port GE + 4 x10GE uplinks, ONIE software, 2 AC PSUs, power-to-port airflow, N. America power cords
4600-54T-O-AC-F-EU	AS4600-54T 48-port GE + 4 x10GE uplinks, ONIE software, 2 AC PSUs, port-to-power airflow, Europe power cords
4600-54T-O-AC-B-EU	AS4600-54T 48-port GE + 4 x10GE uplinks, ONIE software, 2 AC PSUs, power-to-port airflow, Europe power cords
4600-54T-O-AC-F-UK	AS4600-54T 48-port GE + 4 x10GE uplinks, ONIE software, 2 AC PSUs, port-to-power airflow, UK power cords
4600-54T-O-AC-B-UK	AS4600-54T 48-port GE + 4 x10GE uplinks, ONIE software, 2 AC PSUs, power-to-port airflow, UK power cords
4600-54T-O-AC-F-JP	AS4600-54T 48-port GE + 4 x10GE uplinks, ONIE software, 2 AC PSUs, port-to-power airflow, Japan power cords
4600-54T-O-AC-B-JP	AS4600-54T 48-port GE + 4 x10GE uplinks, ONIE software, 2 AC PSUs, power-to-port airflow, Japan power cords
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
FAN-1U-1x1A-F	Fan Module FRU, port-to-power airflow
FAN-1U-1x1A-B	Fan Module FRU, power-to-port airflow
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
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