AS5600-52X
10GbE Data Center Switch
Bare-Metal Hardware

Product Overview

The Edge-Core AS5600-52X hardware switch meets the high-performance, availability, and network-scaling requirements of enterprise and cloud data centers. The AS5600-52X provides full line-rate switching at Layer 2 or Layer 3 across 48 x 10 GbE ports and 4 x 40 GbE uplinks. The switch can be deployed either as a Top-of-Rack switch, or as part of a 10 GbE or 40 GbE distributed spine, forming a non-blocking folded CLOS data center fabric.

The AS5600-52X hardware is designed for data centers, with a high port density of 64 x 10 GbE in a 1 RU enclosure; redundant, hot-swappable, load-sharing AC or 48 VDC* PSUs; fan tray with n+1 redundant fans; and port-to-power or power-to-port airflow options.

Key Features and Benefits

■ Cost-effective, bare-metal switch infrastructure for data center fabric.

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

■ 4 x 40 QSFP switch ports, supporting 40 GbE (DAC, 40GBASE-SR4/LR4) or 4 x 10 GbE (DAC or fiber breakout cable).

■ Port Grouping to group 4 x 10G ports into one 40G port at the physical layer for maximum bandwidth utilization, and for 300m optical reach over MMF.

■ Full line-rate Layer 2 or Layer 3 forwarding of 1.28 Tbps

■ Supports hot/cold aisle with port-to-power and power-to-port airflow SKUs.

■ All ports on front; PSUs, fan tray on rear.

■ Hot-swappable, load-sharing, redundant AC PSUs. 48VDC* option.

■ Swappable fan tray with 3:1 fans.

■ Energy Efficiency: 196 W typical power consumption.

■ Management: Ethernet and console RJ-45 ports; USB storage port.

■ Hardware switch pre-loaded with Open Network Install Environment (ONIE) for automated loading of compatible independent SwitchOS software.

■ Compatible with Cumulus®Linux® r1.5.0 and later SwitchOS software from Cumulus Networks™.

Cumulus® Linux®
Ready

Data Center Switch

Features

Ports

Switch Ports:
   48 x SFP+ each supporting 10 GbE or 1 GbE
   4 x QSFP each supporting 40 GbE or 4 x 10 GbE
Management Ports on Front Panel:
   1 x RJ-45 serial console
   1 x RJ-45 100/1000BASE-T management
   1 x USB Type A storage port

Key Componets

Switch Silicon: Broadcom BCM56846 Trident+ 640 Gbps
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: 640 Gbps
Forwarding Rate: 960 Mpps
MAC Addresses: 128K
VLAN IDs: 4K
Jumbo frames (9216 Bytes)
L3 Routes IPv4 16K, IPv6 8K
Packet Buffer Size: 9 MB shared buffer pool
Latency (RFC2544): 860 ns to 1.2 us (L2/L3, cut thru, full line
   rate)

LEDs

10G SFP+ Port LEDs: Link Speed, Link Status, Activity
40G QSFP Port LEDs: Link Status, Activity
Ethernet Management Port LED: Link Status, Activity
Console Port LED: Link Status
System LEDs: PSU1, PSU2, Diagnostic, Fans, Locator

Supported Optics and Cables

SFP+ Ports:
   10GBASE-CR DAC: 0.5 m to 7 m; Passive and Active
   10GBASE-SRL/SR: up to 100/300 m over OM3 MMF
   10GBASE-LR: Up to 10 km over SMF
   10GBASE-ER: Up to 40 km over SMF
   10GBASE-LRM: Up to 220 m over OM1/2/3 MMF
   1000BASE-SX, 1000BASE-LX, 100/1000BASE-T
QSFP Ports:
   40GBASE-CR4 DAC; 0.5 m to 7 m; Passive and Active
   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 4 x 10GBASE-SR: 100 m over OM3, 150 m
      OM4
   40GBASE-LR4: Up to 10 km over SMF

Software

Switch is loaded with Open Network Install Environment
   (ONIE) software installer
Compatible with the following switchOS software:
   Cumulus Linux r1.5.0 and later

* Future Release

Physical and Environmental

Dimensions (WxDxH): 438.4 x 473 x 43.4 mm (17.26 x 18.62 x
   1.71 inches)
Weight: 8.5 kg (18.74 lbs), with two installed power supply
   modules
Fan Tray: hot-swappable tray with 3+1 redundant fans
Operating Temperature: 0°C to 40°C (32°F to 104°F)
Storage Temperature: -40°C to 70°C (-40°F to 158°F)
Operating Humidity: 5% to 95% non-condensing

Power

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
PSU Efficiency: Up to 93% for AC PSUs
Max Power: 244 W, line-rate, 48 x 10 GBASE-SR,
   4 x 40 GBASE-SR4, AC
Typical Power: 196 W, no traffic, 48 x 10G DAC,
   4 x 40 GBASE-SR4, AC

Regulatory

EMI
   CE Mark (EN55022 Class A)
   FCC Part 15 Class A
   VCCI
Safety
   CB, EN 60950
   UL/CUL
Environmental:
   Temperature: IEC 68-2-14
   Drop: ISTA 2A
RoHS-6 Compliant
Country of Origin: Taiwan (TAA Compliant)

Warranty

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

For More Information

To find out more about Edge-Core Networks products
and solutions, visit www.edge-core.com.au.

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.au.

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 Edgecore solutions, please contact your
Edge-Core Network representatives on 1300 725 323.

Ordering Information

Base Model: AS5600-52X 48-Port 10G SFP+ with 4x40G QSFP uplinks; ONIE software installer			
Model Number	**PSU**	**Airflow**	**Region (power cord)**
5600-52X-O-AC-F-US	dual AC PSUs	port-to-power airflow	N. America
5600-52X-O-AC-B-US	dual AC PSUs	power-to-port airflow	N. America
5600-52X-O-AC-F-EU	dual AC PSUs	port-to-power airflow	Europe
5600-52X-O-AC-B-EU	dual AC PSUs	power-to-port airflow	Europe
5600-52X-O-AC-F-UK	dual AC PSUs	port-to-power airflow	UK
5600-52X-O-AC-B-UK	dual AC PSUs	power-to-port airflow	UK
5600-52X-O-AC-F-JP	dual AC PSUs	port-to-power airflow	Japan
5600-52X-O-AC-B-JP	dual AC PSUs	power-to-port airflow	Japan
PSU-AC-400-F	400W AC Power Supply FRU	port-to-power airflow	no power cord
PSU-AC-400-B	400W AC Power Supply FRU	power-to-port airflow	no power cord
FAN-1U-1x14-F	Fan Tray FRU	port-to-power airflow	
FAN-1U-1x14-B	Fan Tray FRU	power-to-port airflow	

Model Number	**Description**
5600-52X-SVC-RTF	AS5600-52X Annual Hardware Service, Return-to-Factory
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

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EC-DS-0315-01