**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™.
- Compatible with PicOS™ r2.4 and later version from Pica8 Inc.
AS5600-52X Product Specifications

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-4S 100/1000BASE-T management
- 1 x USB Type A storage port

Key Components
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, 10/1000BASE-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 switch software solutions:
- Cumulus® Linux® r1.5.0 and later from Cumulus Networks™
- PicOS™ r2.4 and later from Pica8 Inc.
* 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 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.

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 Edgecore 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.

* Future Release

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## AS5600-52X Product Specifications

### Base Model: AS5600-52X 48-Port 10G SFP+ with 4x40G QSFP uplinks; ONIE software installer

<table>
<thead>
<tr>
<th>Model Number</th>
<th>PSU</th>
<th>Airflow</th>
<th>Region (power cord)</th>
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</thead>
<tbody>
<tr>
<td>5600-52X-O-AC-F-US</td>
<td>dual AC PSUs</td>
<td>port-to-power airflow</td>
<td>N. America</td>
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<tr>
<td>5600-52X-O-AC-B-US</td>
<td>dual AC PSUs</td>
<td>power-to-port airflow</td>
<td>N. America</td>
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<tr>
<td>5600-52X-O-AC-F-EU</td>
<td>dual AC PSUs</td>
<td>port-to-power airflow</td>
<td>Europe</td>
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<tr>
<td>5600-52X-O-AC-B-EU</td>
<td>dual AC PSUs</td>
<td>power-to-port airflow</td>
<td>Europe</td>
</tr>
<tr>
<td>5600-52X-O-AC-F-UK</td>
<td>dual AC PSUs</td>
<td>port-to-power airflow</td>
<td>UK</td>
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<tr>
<td>5600-52X-O-AC-B-UK</td>
<td>dual AC PSUs</td>
<td>power-to-port airflow</td>
<td>UK</td>
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<tr>
<td>5600-52X-O-AC-F-JP</td>
<td>dual AC PSUs</td>
<td>port-to-power airflow</td>
<td>Japan</td>
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<tr>
<td>5600-52X-O-AC-B-JP</td>
<td>dual AC PSUs</td>
<td>power-to-port airflow</td>
<td>Japan</td>
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<tr>
<td>PSU-AC-400-F</td>
<td>400W AC Power Supply FRU</td>
<td>port-to-power airflow</td>
<td>no power cord</td>
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<tr>
<td>PSU-AC-400-B</td>
<td>400W AC Power Supply FRU</td>
<td>power-to-port airflow</td>
<td>no power cord</td>
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<tr>
<td>FAN-1U-1x14-F</td>
<td>Fan Tray FRU</td>
<td>port-to-power airflow</td>
<td></td>
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<tr>
<td>FAN-1U-1x14-B</td>
<td>Fan Tray FRU</td>
<td>power-to-port airflow</td>
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### Ordering Information

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5600-52X-SVC-RTF</td>
<td>AS5600-52X Annual Hardware Service, Return-to-Factory</td>
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<tr>
<td>CBL-PWR-US</td>
<td>AC Power Cable - US (125V/13A, 1830mm) – only required with spare power supplies</td>
</tr>
<tr>
<td>CBL-PWR-EU</td>
<td>AC Power Cable - Europe (250V/10A, 1830mm) – only required with spare power supplies</td>
</tr>
<tr>
<td>CBL-PWR-UK</td>
<td>AC Power Cable - UK (250V/10A, 1830mm) – only required with spare power supplies</td>
</tr>
<tr>
<td>CBL-PWR-JP</td>
<td>AC Power Cable - Japan – only required with spare power supplies</td>
</tr>
</tbody>
</table>