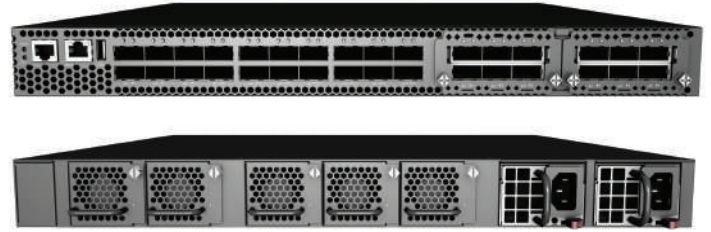# AS6700-32X/AS6701-32X
40GbE Data Center Switch
Bare-Metal Hardware

Product Overview

The Edgecore AS6700-32X switch is a Top-of-Rack (TOR) or spine switch for high-performance data centers. In a compact 1RU form factor, the switch provides line-rate L2 and L3 switching across up to 32 x QSFP ports, supporting up to 32 x 40 GbE connections or 104 x 10 GbE connections. The AS6700-32X can be deployed as a TOR switch supporting 10 GbE or 40 GbE server connections, or as a spine switch, supporting 10 GbE or 40 GbE spine interconnects. The switch provides 20 fixed QSFP ports and two module slots, each capable of supporting a 6 x QSFP option module or a future NPU module for application processing. The AS6700-32X is a bare-metal switch loaded with the Open Network Install Environment (ONIE), which supports the installation of compatible independent switchOS offerings.

Key Features and Benefits

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

■ Up to 32 x 40GbE ports in compact 1RU form factor.

■ Modular design allowing cost-effective build-out of an infrastructure with switching capacity added as required.

■ 20 x QSFP switch ports, each supporting 40 GbE or 4 x 10 GbE via breakout cables.

■ Two module slots, each supporting 6 x QSFP module or future NPU processing module.

■ Layer 2 or Layer 3 forwarding of 2.56 Tbps full duplex.

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

■ All ports on front; PSUs and fans on rear.

■ Hot-swappable, load-sharing, redundant AC or -48V DC PSUs.

■ 4+1 redundant, hot-swappable fans.

■ Energy Efficiency: 267 W typical power consumption.

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

■ AS6701 SKUs compatible with Cumulus® Linux® r2.0.1 and later switchOS software from Cumulus Networks®.

■ AS6701 SKUs Compatible with PicOS™ r2.5 and later version from Pica8 Inc.

■ AS6700 SKUs compatible with Switch Light OS from Big Switch Networks.

Data Center Switch

big switch networks | **PICOS**® POWERED BY PICA8 | Cumulus® Linux® Ready

Features

Ports

Switch Ports:
  20 QSFP fixed ports: 40 GbE or 4 x 10 GbE per port
  2 expansion module slots, for optional modules:
    6 QSFP: 40 GbE or 4 x 10 GbE per port
    NPU module (future)
Total switch capacity: 32 x 40 GbE; or 104 x 10 GbE
Management ports on port side:
  1 x RJ-45 serial console
  1 x RJ-45 100/1000BASE-T management port
  1 x USB Type A storage port

Key Components

Switch Silicon: Broadcom BCM56850 Trident II 1.28 Tbps
CPU Module: Freescale P2041 quad-core 1.5GHz in AS6700
              Freescale P2020 dual-core 1.2GHz in AS6701
              2GB DDR3 SDRAM ECC memory
              8 MB NOR Flash, 2 GB NAND Flash
              8 GB SD Card

Performance

Switching Capacity: 2.56 Tbps full duplex, with packets>200 bytes
Forwarding Rate: 1.44 Bpps
MAC Addresses: Up to 288 K
VLAN IDs: 4 K
Jumbo frames (9216 Bytes)
L3 Routes IPv4 64K, IPv6 20K
Packet Buffer Size: 12 MB shared buffer pool
Latency (RFC2544): 600 to 720 ns cut thru

LEDs

40G QSFP Port LEDs: Link Status, Activity
Ethernet Management Port LED: Link Status, Activity
Console Port LED: Link Status
System LEDs: Diagnostic, Locator

Supported Optics and Cables
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
AS6701 SKUs compatible with Cumulus® Linux® r2.0.1 or later
  from Cumulus Networks®
AS6700 SKUs compatible with Switch Light OS from Big
  Switch Networks and their Big Tap and Big Cloud applications

Physical and Environmental

Dimensions (WxDxH): 440 x 470 x 44 mm (17.3 x 18.5 x 1.73 inch)
Weight: 8.4 kg (18.52 lbs), total with 2 modules
Fans: 4+1 redundant, hot-swappable
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: 315 W, line-rate, 32 x 40G SR4, AC
Typical Power: 267 W, line-rate, 32 x 40G DAC, 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

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 (949)-336-6801 or authorized resellers.

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Ordering Information

Base Model: AS6700-32X 20-Port 40GbE QSFP switch with ONIE software installer

Model Number	CPU Module	Module	PSU	Airflow	Region (power cord)
6700-32X-O-AC-F-US	P2041 CPU Module	dual 6-port 40G module	dual AC PSUs	port-to-power airflow	N. America
6700-32X-O-AC-B-US	P2041 CPU Module	dual 6-port 40G module	dual AC PSUs	power-to-port airflow	N. America
6700-32X-O-AC-F-EU	P2041 CPU Module	dual 6-port 40G module	dual AC PSUs	port-to-power airflow	Europe
6700-32X-O-AC-B-EU	P2041 CPU Module	dual 6-port 40G module	dual AC PSUs	power-to-port airflow	Europe
6700-32X-O-AC-F-UK	P2041 CPU Module	dual 6-port 40G module	dual AC PSUs	port-to-power airflow	UK
6700-32X-O-AC-B-UK	P2041 CPU Module	dual 6-port 40G module	dual AC PSUs	power-to-port airflow	UK
6700-32X-O-AC-F-JP	P2041 CPU Module	dual 6-port 40G module	dual AC PSUs	port-to-power airflow	Japan
6700-32X-O-AC-B-JP	P2041 CPU Module	dual 6-port 40G module	dual AC PSUs	power-to-port airflow	Japan
6700-32X-O-48V-F	P2041 CPU Module	dual 6-port 40G module	dual -48V DC PSUs	port-to-power airflow	
6700-32X-O-48V-B	P2041 CPU Module	dual 6-port 40G module	dual -48V DC PSUs	power-to-port airflow	
6701-32X-O-AC-F-US	P2020 CPU Module	dual 6-port 40G module	dual AC PSUs	port-to-power airflow	N. America
6701-32X-O-AC-B-US	P2020 CPU Module	dual 6-port 40G module	dual AC PSUs	power-to-port airflow	N. America
6701-32X-O-AC-F-EU	P2020 CPU Module	dual 6-port 40G module	dual AC PSUs	port-to-power airflow	Europe
6701-32X-O-AC-B-EU	P2020 CPU Module	dual 6-port 40G module	dual AC PSUs	power-to-port airflow	Europe
6701-32X-O-AC-F-UK	P2020 CPU Module	dual 6-port 40G module	dual AC PSUs	port-to-power airflow	UK
6701-32X-O-AC-B-UK	P2020 CPU Module	dual 6-port 40G module	dual AC PSUs	power-to-port airflow	UK
6701-32X-O-AC-F-JP	P2020 CPU Module	dual 6-port 40G module	dual AC PSUs	port-to-power airflow	Japan
6701-32X-O-AC-B-JP	P2020 CPU Module	dual 6-port 40G module	dual AC PSUs	power-to-port airflow	Japan
6701-32X-O-48V-F	P2020 CPU Module	dual 6-port 40G module	dual -48V DC PSUs	port-to-power airflow	
6701-32X-O-48V-B	P2020 CPU Module	dual 6-port 40G module	dual -48V DC PSUs	power-to-port airflow	
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
PSU-48V-400-F			-48V DC Power Supply FRU	port-to-power airflow	no power cord
PSU-48V-400-B			-48V DC Power Supply FRU	power-to-port airflow	no power cord
FAN-1U-1x1B-F			Fan Module FRU	port-to-power airflow	
FAN-1U-1x1B-B			Fan Module FRU	power-to-port airflow	

Ordering Information

Model Number	Description
6701-32X-SVC-RTF	AS6700-32X, Annual Hardware Service, Return-to-Factory (after warranty)
6700-32X-MOD-40G	AS6700-32X option module FRU, 6x40G QSFP ports
RKIT-85-6700	Rack mount kit (for AS6700-32X/AS6701-32X)
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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