

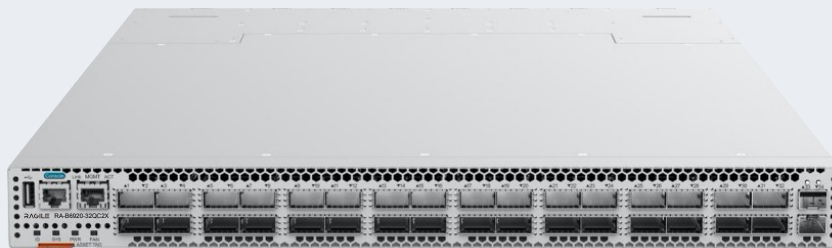
RAGILE

RA-B6920-32QC2X BARE METAL SWITCH

OVERVIEW

The Ragile RA-B6920-32QC2X is a new generation high performance and high density 400GbE switch designed for cloud-scale datacenter and campus networks, which provide a powerful cache capacity and advanced scheduling mechanism driven large scale line-rate non-blocking network.

RA-B6920-32QC2X based on Broadcom BCM56980 chipset deliver 32 400GbE QSFP-DD ports in 1RU systems with an overall throughput of 25.6Tbps. RA-B6920-32QC2X support industry standard optics and cables allowing for ease of migration to 400G. All ports allow a choice of speeds including 400GbE, 200GbE or 100GbE, up to 128 interfaces. RA-B6920-32QC2X switch support latency as low as 700ns in cut-through mode, and a 64 MB packet buffer with a large shared pool allowing for superior burst absorption compared to systems with fixed port buffering.



PRODUCT HIGHLIGHTS

Performance

- 32 × QSFP-DD 400GbE Ports & 2 × SFP+ 10GbE Ports
- Base on Broadcom BCM56980 (Tomahawk III)
- Highest density 400GbE in compact 1RU
- Flexible 100GbE, 200GbE and 400GbE support
- Up to 25.6 Tbps (full duplex)
- Up to 8 Bpps
- Wire speed L2 and L3 forwarding
- Latency from 700ns for 400GbE (cut-through mode)

Data Center Optimized Design

- 32 port of 400GbE ports in 1RU
- Typical power of under 14W per port
- Over 94% efficient power supplies
- 1+1 redundant & hot-swappable power
- 5+1 redundant & hot-swappable fans
- Front-to-rear cooling
- Tool less maintenance and simple installation

Cloud Networking Ready

- 128-way ECMP for hyper-scale networks
- Dynamic Load Balancing for advanced multi-pathing
- Advanced Congestion Management for NVMe and AI workloads
- Flow aware traffic scheduling
- Shared 64MB Buffer with burst absorption
- Up to 8K MAC and 16K Host entries
- Over 960K IPv4 Routes
- Over 960K IPv6 Routes

* The above table is the maximum capacity that the switching chip can provide.

Resilient Control Plane

- Intel Xeon D-1527 Processor (Formerly Broadwell DE)
- 8GB DRAM

Software

- Switch is loaded with Open Network Install Environment(ONIE) software installer and OpenBMC.
- NOS compatibility: Software for Open Networking in the Cloud(SONiC).

SPECIFICATIONS

Switch Model	RA-B6920-32QC2X
Ports	32×QSFP-DD + 2×SFP+
Max 400GbE Ports	32
Max 200GbE Ports	64 (2×200GbE)
Max 100GbE Ports	128 (4×100GbE)
Max 1/10GbE Ports	2
Throughput (full duplex)	25.6Tbps
Packets/Second	8Bpps
Latency (cut-through mode)	700ns
CPU	Intel Xeon D-1527
System Memory	8GB (Up to 32GB)
System Storage	≥64GB
BMC Option	Yes
Switch ASIC	Broadcom BCM56980 (Tomahawk III)
Packet Buffer Memory	64MB (Dynamic Buffer Allocation)
10/100/1000 MGMT Ports	1
RS-232 Serial Ports	1 (RJ-45)
USB Ports	1
Hot-swap Power Supplies	2 (1+1 redundant)
Hot-swappable Fans	6 (5+1 redundant)
Airflow Option	Yes(Forward and Reversed airflow)
Typical/ Max Power Draw	658W/1183W
Typical/Max Heat Dissipation	2245.7/3754.3 BTU/hr
Size(W×H×D)	17.24×1.70×25.20 in. (438×43.1×640mm)
Weight	29.7 pounds (13.5kg)
Power Supplies	1200W (Forward and Reversed airflow)

POWER SUPPLY SPECIFICATIONS

Power Supply	1200W 100-240V AC 240V DC
Input Voltage	12-7A (AC)
Typical Input Current	6A (DC)
Input Frequency (AC)	50~60Hz
Input Connector	IEC 320-C13
Efficiency (Typical)	94% Platinum

ORDER INFORMATION

Model	Description
RA-B6920-32QC2X	32 fixed 400G QSFP-DD ports, 2*10G SFP+ ports. 2 slots for power supply modules. 6 slots for fan modules. 2 power supply modules and 6 fan modules already included.
B6930-40FAN-F	Fan module for, front-to-rear airflow. With up to 6 fan modules, support 5+1 redundancy.
RA-PA1200I-F	Power supply module, front-to-rear airflow. With up to 2 power modules, support 1+1 redundancy.

NOTE:

The Ragile RA-B6920-32QC2X is a bare metal switch hardware system with Open Network Install Environment (ONIE). Customer should install networking operation system before use, or contact Ragile Networks INC. for OS support.

STANDARD COMPLIANCE

EMC	Emissions: FCC, EN55022, EN61000-3-2, EN61000-3-3 or EN61000-3-11, EN61000-3-12 (as applicable) Immunity: EN55024 Emissions and Immunity: EN300 386
Safety	UL/CSA 60950-1, EN 60950-1, IEC 60950-1 CB Scheme with all country differences
Certifications	North America (NRTL) European Union (EU) BSMI (Taiwan) C-Tick (Australia) CCC (PRC) MSIP (Korea) EAC (Customs Union) VCCI (Japan)
European Union Directives	2006/95/EC Low Voltage Directive 2004/108/EC EMC Directive 2011/65/EU RoHS Directive

ENVIRONMENTAL CHARACTERISTICS

Operating Temperature	32 to 104° F (0 to 40°C)
Storage Temperature	-40 to 158° F (-40 to 70°C)
Relative Humidity	5 to 95% non-condensing
Altitude (Operating)	Designed to meet: 0 to 10,000ft
Altitude (Non-operating)	-1000ft to 30,000ft

MORE INFORMATION

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For more information about the Ragile RA-B6920-32QC2X switch, please visit <http://www.ragilenetworks.com> or contact your local Ragile sales representative.