

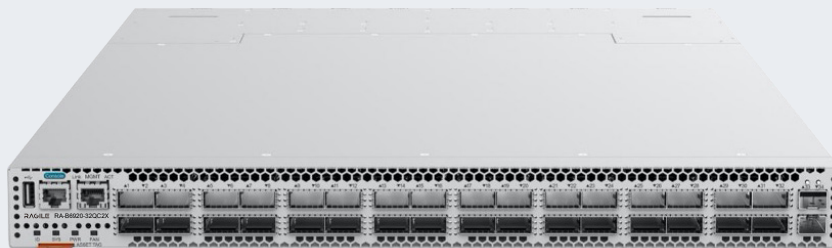
# RAGILE

## 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.

## MORE INFORMATION

Phone: +1(669) 666-765      Email: [info@ragilenetworks.com](mailto:info@ragilenetworks.com)

Address: 250W Tasman Dr. San Jose, CA, 95134

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

## 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