



| Bare Metal Switch

B6930-32CDQ2XS

Overview

The Ruijie B6930-32CDQ2XS 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.

The Ruijie B6930-32CDQ2XS based on Broadcom Tomahawk3 chipset deliver 32 400GbE QSFP-DD ports in 1RU systems with an overall throughput of 25.6Tbps. The Ruijie B6930-32CDQ2XS support industry standard optics and cables allowing for ease of migration to 400GbE. All ports allow a choice of speeds including 400GbE, 200GbE or 100GbE, up to 128 interfaces. The Ruijie B6930-32CDQ2XS 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.

NOTE:

Ruijie B6930-32CDQ2XS is a bare metal switch hardware system with Open Network Install Environment (ONIE). Customer should install networking operation system before use, or contact Ruijie Networks co. for OS support.

Product Highlights

Performance

- 32 × QSFP-DD 400GbE Ports & 2 × SFP+ 10GbE Ports

- Base on Broadcom Tomahawk 3
- 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 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

Resilient Control Plane

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

Specifications

| Switch Model | B6930-32CDQ2XS |
|------------------------------|--------------------------------------------------|
| 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 Tomahawk 3 |
| 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) |

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 |

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 |

Power Supply Specifications

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

Order Information

| Model | Description |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| B6930-32CDQ2XS | 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, front-to-rear airflow. With up to 6 fan modules, support 5+1 redundancy. |
| RG-PA1200I-F | Power supply module, front-to-rear airflow. With up to 2 power modules, support 1+1 redundancy. |



Ruijie Networks Co., Ltd.

For further information, please visit our website <https://www.ruijienetworks.com>

All rights are reserved by Ruijie Networks Co., Ltd. Ruijie reserves the right to change, modify, transfer, or otherwise revise this publication without notice, and the most current version of the publication shall be applicable.