ESP-9230

High Performance 10/25/40/50/100G Top of Rack Ethernet Switch

Features

- High Density
  - 32 40/50/100GbE ports in 1 RU
  - Up to 128 10/25/50GbE ports
- Wire Speed Switching
- Ultra low latency
  - As low as 400 nanoseconds

Benefits

- Non-blocking cut-through switching fabric
- Easy Scale from one to thousands of nodes and switches
- Arranged and Organized Data Center
  - Support speeds of 10/25/40/50/100GbE
  - Easy deployment
  - Easy maintenance
- Unprecedented performance
  - Line rate performance on all ports at all packet sizes
  - Storage and server application run faster
- Software Defined Networking (SDN) support
- Running Broadcom FASTPATH®, alternative operating systems over ONIE
- IPMI 2.0 compliant hardware management function

Introduction

The Advantech Networking ESP-9230 is a high-performance, power-efficient, 100Gbps Top-of-Rack (TOR) switch designed for data center use. The ESP-9230 delivers line-rate L2 and L3 forwarding capacity on all ports in this compact, 1-rack-unit (1U) model. The ESP-9230 is loaded with the Open Network Install Environment (ONIE) which supports installation of compatible NOS, including Open Network Linux and commercial offerings. The Advantech Networking ESP-9230 is a Quad Small Form-Factor Pluggable (QSFP) switch with 32 QSFP28 ports. Each QSFP28 port can operate at 10, 25, 40, 50, and 100 Gbps, up to a maximum of 128 x 25-Gbps ports.

While running with a powerful x86-based processor, this system is not only the highest performing switch fabric element, but also has the ability to a Linux running server into the same device.

Including the ONIE software offering, the ESP-9230 has three software offerings in total to fulfill different customer applications. Details are below.

(1) Powered by the Broadcom OF-DPA pipeline, the ESP-9230 becomes a 3.2T OpenFlow switch plus a high-end NFV computer platform in a single 1U device. The Broadcom switch silicon, managed by the OpenFlow protocol for the Broadcom OF-DPA, provides full line rate switching across all ports.

(2) With the Broadcom FASTPATH®, the ESP-9230 helps users achieve quick time-to-market for new Ethernet products. FASTPATH operates on the Linux operating system and supports numerous industry RFCs, standards and protocols, like L2 and L3 Ethernet switching, and routing protocols.

(3) Loaded with the Open Network Install Environment (ONIE), the ESP-9230 supports the installation of compatible independent switchOS offerings.

The ESP-9230 supports the Open Network Install Environment (ONIE) for zero touch installation of network operating systems.

Specifications

Processor, Memory and Switch	Processor	Intel® Xeon® Processor D-1548
	Flash Memory	2 x 1Gbit SPI Flash
	Max DDR4 DIMM#	2 x DDR SO-DIMM, up to 32GB
	Ethernet Switch	Broadcom StrataXGS® Tomahawk BCM56960
	Forwarding Bandwidth	3.2Tbps
Ethernet I/O	Fiber Version	32 x 100GbE QSFP28/ 64x 50GbE/ 32x40GbE/ 128x 25-GbE/ 128x 10-GbE 2 x 10GbE SFP+
Management I/O	Ethernet	2 x GbE RJ-45
	Serial	1 x RJ-45 Type console port for D-1548
	USB	2 x USB 3.0
Local Storage	SATA	2 x M.2 SATA devices
System FRU	Power supply	Redundant AC/DC PSU
	Power input	AC 100 -240 V @ 47-63 Hz, full range
	Type/Watt	600 W (1+1 redundant, 500 W each)
	System power consumption	435 Watt (Max.)
	System Fans	5 x Hot-swappable redundant FAN trays; support reverse and forward airflow
Physical	Dimension (W x D x H)	17.32" x 17.56" x 1.73"
Environment	Operating	0 to 40° C @ 1800m and 85%RH
	Storage	- 40 to 70° C @ 3000m and 95%RH

Ordering Information

Part Number	Description
ESP-9230-25AA00	Support 32 x 100GbE QSFP28/ 64x 50GbE/ 32x40GbE/ 128x 25-GbE/ 128x 10-GbE; Intel® Xeon® Processor D-1548 and 32 GB DDR4 memory and M.2 SATA

Please contact your Advantech regional sales office or email ncg@advantech.com for additional ordering information and pricing.

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