## Broadcom 9305-16e Datasheet



Broadcom Avago 9305-16e 05-25704-00 PCIe 3.0 x8 SAS3216 16 External Ports 12Gb/s SAS Host Bus Adapter 9305-16e

The Avago SAS 9305-16e PCI Express (PCIe)-to-Serial Attached SCSI (SAS) host bus adapter (HBA), referred to as the Avago 12Gb/s SAS HBA, provides high-performance internal storage connectivity for servers and workstations. The 12Gb/s SAS HBA provides sixteen lanes of 12Gb/s SAS connectivity and is matched with eight lanes of PCIe 3.0 8Gb/s performance. The low-profile design of the SAS HBA includes a full-height mounting bracket and a low-profile mounting bracket that create a universal fit for any server. The 12Gb/s SAS HBA is developed on the Fusion-MPT-based SAS 3216 controller that integrates the latest enhancements in PCIe 3.0 technology and 12Gb/s SAS technology.

## **Features**

- Implements one SAS 3216 sixteen-port 12Gb/s SAS to PCIe 3.0 controller
- Supports eight-lane, full-duplex PCIe 3.0 performance
- Supports sixteen external 12Gb/s SATA+SAS ports
- Supports SATA link rates of 3Gb/s and 6Gb/s
- Supports SAS link rates of 3Gb/s, 6Gb/s, and 12Gb/s
- Provides sixteen x4 external mini-SAS HD connectors (SFF-8644)
- Supports passive copper cable, active copper cable, and optical cable
- Supports up to 1024 SATA or SAS end devices
- Offered with a full-height bracket and a low-profile vented bracket
- Provides one heartbeat LED
- Provides a universal asynchronous receiver/transmitter (UART) debug/diagnostic port

## **Specifications**

• Product: SAS 9305-16e

• MPN: 05-25704-00

• I/O Controller: SAS 3216/ Fusion MPT 2.5

• Port Count: 16-port, external

• Connectors: Mini-SAS HD SFF8644 Four (x4)

• Storage Connectivity Data Transfer Rates: 12Gb/s SAS 3.0 Compliant

• SAS Bandwidth: 1200 MB/s per port (each direction)

• Port Configurations

• 16 ea, x1 ports (individual drives)

• 4 ea, x4 wide ports

2 ea, x8 wide ports

• Host Bus: x8 lane, PCIe 3.0

• PCI Data Burst Transfer Rates: Half Duplex x8, PCIe 3.0, 8000 MB/s

• Form Factor: Low Profile

• Physical Dimensions: 2.7" x 6.6"

• Brackets: Low Profile & Full Height

• Cable Support: Passive Copper, Active Copper, Active Optical

• LED Management: SES

• Operating Voltage: +12V +/-8%; 3.3V +/-9%

• PCI Power (Nominal): Typical: 13.0W

• Device Support: 1024 Non-RAID devices

Environmental

Operating: 0°C to 55°C

Storage: -45°C to 105°C

5 to 90% Non-condensing

o Airflow: 200 LFM

• MTBF: >3,500,000 hours at 40°C

- Regulatory Certifications: USA (FCC 47 CFR part 15 Subpart B, class B); Canada (ICES -003, Class B); Taiwan (CNS 13438); Japan (VCCI V-3); Australia/New Zealand (AS/NZS CISPR 22); Korea (RRA no 2013-24 & 25); Europe (EN55022/EN55024); Safety: EN/ IEC/UL 60950; RoHS; WEEE
- OS Support: Microsoft Windows, Linux (Oracle, SuSE, Red Hat), Solaris, VMware, FreeBSD, CentOS, Canonical, Citrix, FreeBSD, Fedora, Debian

For more information of this Broadcom SAS 9305-16e, please visit Broadcom website:

https://docs.broadcom.com/doc/pub-005244

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