



## Fully integrated PCIe Fabric Delivers Software-defined composability for the most data-intensive workloads

The Liquid Host Bus Adapter (HBA) PCIe x16 Gen 4 switch-based cable adapter integrates Broadcom Technologies ExpressFabric PEX88000 PCIe Gen 4.0 series, a fully non-blocking and low-latency PCI Express Gen 4 switch. Liquid's HBA is purpose built for composability, ensuring software-defined composable systems from Liquid perform at the highest levels of efficiency.

Adjusting to real-time business requirements is paramount in the modern data center. Liquid empowers IT administrators to manage, scale, and configure physical bare-metal server systems in seconds and then reallocate core data center devices on-demand as business needs evolve.

Connect vendor-agnostic Liquid GRID composable switching technologies and Command Center software to the server motherboard via Gen 4 PCI-Express for unprecedented infrastructure adaptivity. Enable greater hardware disaggregation, integrating off-the-shelf CPU, NVMe storage, and networking in tandem with accelerator technologies such as GPU, FPGA and Intel Optane memory for unprecedented, software-defined, bare metal performance.

With Liquid, these pooled resources can now be dynamically configured and reconfigured on demand to create servers perfectly sized with the exact physical resources required by the application being deployed.

As a core element of the Liquid composable platform, the Liquid HBA is central to enabling IT administrators to deliver adaptive compute infrastructure and scale core resources on demand for the world's most data-intensive workloads.

- > Up to 256Gb/s at PCIe Gen 4 speeds
- > Requires no additional software

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### Key Features

- Half-card form factor
- PCIe Gen4 x16 upstream port
- PCIe Gen4 x16 downstream port
- PCIe Gen4 x8 for two down stream ports
- PCIe Gen4 x4 for four down stream ports



# LIQID

## LQD1416 Host Bus Adapter (HBA) PCIe x16 Gen 4 Specifications

### Specification

### Model: LQD1416 Host Bus Adapter

### Selection

Form Factor	PCIe Gen4x16 half-height, half-length add-in card
Dimensions	6.14" x 2.89" (156mm x 73.4mm)
Power	Maximum 15W
Connectors	SFF-8644 or SFF-8643
Operating Temperature	0C to 50C
Storage Temperature	-40C to 85C
Operating Humidity	10% to 90% relative humidity non-condensing
Storage Humidity	5% to 95% relative humidity non-condensing
PCB	PCI Express add-in card standard Thickness .063" +/- 0.008" (1.6mm +/- 0.2mm)
PCIe Switch	Broadcom PEX88032 16.0 GT/s 34-Lane PCI Express Gen4 Switch DMA Controller SSC Isolation Support

**L1416-016L04-040**  
PCIe Gen 4.0 x16 Host Adapter Card (HBA)

Please contact your sales rep for more information and to determine which configuration is best for use. Specification subject to change without notice.

### Contact Information

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329 Interlocken Pkwy., Ste 200  
Broomfield, CO 80021  
office: +1 303.500.1551  
email: sales@liquid.com

\*\*Supports surprise hot plug in on downstream ports in both Windows and Linux

\*\*Must have m/b that supports PCIe native mode OS in the Bios and running Server 2012 R2 or higher (no desktop versions)

## About Liquid

A leader in composable infrastructure, Liquid enables users to configure and manage physical, bare-metal server systems in seconds. Storage, compute, networking and graphics processing devices are interconnected over PCI-Express fabric to deliver dynamically configurable bare-metal servers perfectly sized with the exact physical resources required by the application being deployed.



**LQD1325 U.2 to PCIe Host Bus Adapter**  
PCIe x4 Gen 3 Specifications



## High Performance PCIe connectivity For Dell PowerEdge MX7000

For workloads like AI that require parallel accelerated computing, the addition of GPU acceleration within the PowerEdge MX7000 is paramount. Liquid LQD1325 U.2 to PCIe host bus adapters (HBA) enable PCIe connectivity to Dell compute sleds enabling accelerator composability to Dell PowerEdge MX7000. The PCIe x4 Gen 3 cable adapter is integrated with a fully non-blocking and low-latency PCI Express Gen 3 switch.

Simply insert HBA into an available U.2 drive bay and go. No drive tray/caddy needed. Once Dell MX compute sleds are connected to Liquid GRID PCIe switching technology and Command Center software new levels of infrastructure flexibility are possible. Enable hardware disaggregation, integrating off-the-shelf CPU, NVMe storage, and networking in tandem with accelerator technologies such as GPU, FPGA and Intel Optane memory for unprecedented, software-defined, bare metal performance.

Liquid PCIe composability for the Dell EMC PowerEdge MX7000 unlocks the ability to manage the most demanding workloads in which accelerators are required for both new and existing deployments, and the LQD1325 is key to unlocking these capabilities.

- > Up to 64Gb/s at PCIe Gen 3 speeds
- > Requires no additional software

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### Key Features

- Accelerator Composability for MX7000
- U.2 HBA form factor
- Plug and play simplicity



# LIQID

## LQD1325 U.2 to PCIe Host Bus Adapter

PCIe x4 Gen 3 Specifications

### Specification

### Model: LQD1325 Host Bus Adapter

### Selection

Form Factor	PCIe x4 U.2 Adapter
Dimensions	4.42"x.63"x2.93"
Power	10 Watts Max
Connectors	SFF-8808
Storage Temperature	-40 to 75C
Operating Humidity	5% to 95% (non-condensing)
Storage Humidity	5% to 95% relative humidity non-condensing

### L1325-004L01-030

PCIe x4 Gen 3.0 Host Adapter Card (HBA)

Please contact your sales rep for more information and to determine which configuration is best for use. Specification subject to change without notice.

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