

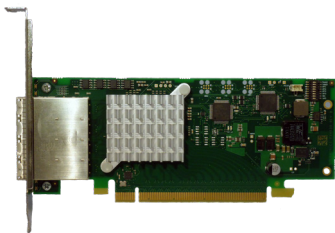
PCIe Host/Target Adapters

Standard Gen3 Adapters

Dolphin's PCIe Host/Target Adapters are designed for use in IO expansion applications. All transparent host and target adapters support standard features for transparent bridging (TB), along with host and clock isolation.

These adapters support various cabling specifications including iPass or the new PCI Sig 3.0 specification. Some adapters can also be used with a standard MiniSAS-HD cable when the Dolphin card is both the host and target adapter. SFF-8644 adapters support the new CMI functionality when used with a PCIe 3.0 cable.

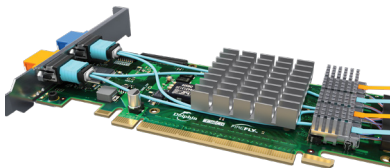
The adapters are carefully designed for maximum cable length. Some boards support copper cables up to 9 meters at full PCI Express Gen3 speed. Fiber optics extends this distance to 100 meters.



PXH832

Gen3 PCI Express Transparent Host and Target Adapter

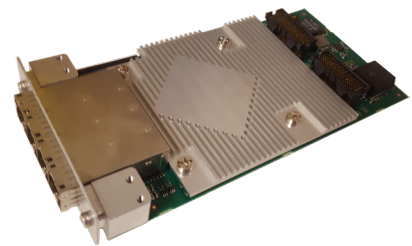
- x16 PCI Express edge port
- 4 x4 cable ports
- Total 128 Gbit/s Throughput
- 138 ns Cut-Through Latency
- Low Profile Design
- Quad SFF-8644 connector
- MiniSAS-HD / PCIe 3.0 cables



PXH842

Gen3 PCI Express Transparent Host and Target Adapter

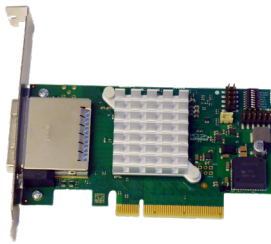
- x16 PCI Express edge port
- Two x8/x4 PCIe optical cable ports
- Total 128 Gbit/s Throughput
- 138 ns Cut-Through Latency
- Low Profile Design
- Dual MTP connectors



PXH822

PCIe Gen3 XMC Host/Target Adapter

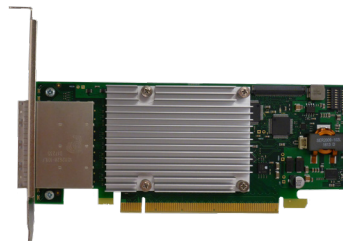
- x4, x8 or x16 PCI Express host port
- Quad SFF-8644 cable port
- VITA 42.0 XMC 1.0
- Prepared for Rear IO
- x4, x8 or x16 PCI Express cable port



PXH812

PCI Express Gen3 Host and Target Adapter

- 8.0 Gbps per lane
- PCI Express iPass Connectors
- Supports Gen1,2,and 3 PCIe
- Clock isolation for CFC or SSC
- Low Profile Design
- Copper connection up to 5m
- Fiber-optic - up to 100m
- Transparent host and target
- EEPROM configurable
- Link status LEDs

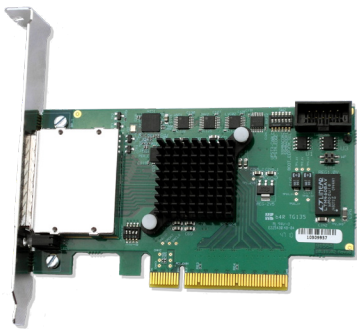


MXH832

Gen3 x16 PCIe Transparent Host / Target Adapter

- One x16 PCIe edge port
- Four x4 PCIe Cable ports
- PCIe 3.0 or MiniSAS-HD cables
- 170 nanoseconds cut through latency
- Quad SFF-8644 Connectors
- Host / Target Transparent Bridging
- Low Profile Design
- Optional board management software

Gen2 Host Adapters



IXH610

PCI Express Gen2 Host Adapter

- x8 PCI Express port
- PIO and DMA RDMA
- iPass Connector
- Low Profile Design
- Up to 7m Copper Cables
- Transparent HOST bridging
- Non Transparent Bridging
- 40 GT/s Performance



IXH620

XMC PCI Express Gen2 Adapter

- x8 PCI Express port
- PIO and DMA RDMA
- iPass Connector
- VITA 42.0-2005,ANSI/VITA 42.3-2006
- Up to 7m Copper Cables
- Transparent bridging
- Non Transparent Bridging
- 40 GT/s Performance

Feature	PXH832	PXH842	PXH822	MXH832	PXH812
Port Speeds	32 GT/s per port / 128 GT/s max	32 GT/s per port / 128 GT/s max	32 GT/s per port / 128 GT/s max	32 GT/s per port / 128 GT/s max	64 GT/s per port/ 64 GT/s max
Port to port latency	138 nanoseconds	138 nanoseconds	138 nanoseconds	170 nanoseconds	138 nanoseconds
Active Components	Broadcom/PLX Gen 3 PCIe Switch with DMA	Broadcom/PLX Gen 3 PCIe Switch with DMA	Broadcom/PLX Gen 3 PCIe Switch with DMA	Microsemi Switchtec PFX Gen 3 PCIe Switch	Broadcom/PLX Gen 3 PCIe Switch with DMA
Specifications	Base Spec 3.0 Cable Spec 3.0 CEM Spec 3.0.	Base Spec 3.0 Cable Spec 3.0 CEM Spec 3.0.	Base Spec 3.0 Cable Spec 3.0 VITA 42	Base Spec 3.1 Cable Spec 3.0 CEM Spec 3.0	Base Spec 3.0 Cable Spec 2.0 CEM Spec 3.0
Topologies	Transparent Host/Target up to 4 exp systems MXS824 Switch topology	Transparent Host/Target up to 4 exp systems	Transparent Host/Target up to 4 exp systems MXS824 Switch topology	Transparent Host/Target up to 4 exp systems MXS824 Switch topology	Transparent Host/Target Switch topology with IXS600
Cable Connections	SFF-8644 connector Supports 4 - x4/ 2 - x8 or 1 - x16 connections PCIe 3.0 copper and MiniSAS-HD copper / fiber	Fiber optic cable (AOC) support MPO Fiber cabling	SFF-8644 connector Supports 4 - x4/ 2 - x8 or 1 - x16 connections PCIe 3.0 copper, MiniSAS-HD copper and PCIe fiber	SFF-8644 connector Supports 4 - x4/ 2 - x8 or 1 - x16 connections PCIe 3.0 copper, MiniSAS-HD copper and PCIe fiber	x8 iPass copper cable, fiber optic cable support Supports x8 to x4 transition cables
Max Cable Distance	9m with copper 100m with fiber	100 meters with fiber	9m with copper 100m with fiber	9m with copper 100m with fiber	5m with copper 100m with fiber
Power Consumption	12 Volt : 14 Watt Max 12 Volt: Max 18 Watts incl AOC +3.3 Volt : Max 3.3 Watt +3.3 VAUX : Max 1 Wattz	12 Volt : 14 Watt Max +3.3 Volt : Max 3.3 Watt +3.3 VAUX : Max 1 Watt	12 Volt : 14 Watt Max 12 Volt: Max 18 Watts incl AOC +3.3 Volt : Max 3.3 Watt +3.3 VAUX : Max 1 Watt	12 Volt: Max 19.6 Watts 12 Volt: Max 24 Watts incl AOC +3.3 Volt: Not connected +3.3 VAUX: Max 1 Watt	12 Volt: 12 Watt Max +3.3 VAUX : Max 40 milliwatt
Mechanical Dimensions	Low profile, Half Length - 68.90 mm (2.731 inches) x 167.65 mm (6.600 inches)	Low profile, Half Length - 68.90 mm (2.731 inches) x 167.65 mm (6.600 inches)	Single width XMC	Low profile, Half Length - 69.2 mm (2.7 inches) x 168.2 mm (6.6 inches)	Low profile - 68.90 mm (2.731 inches) x120 mm (6.600 inches)
PCIe Bracket	Full height bracket mounted Half height bracket included	Full height bracket mounted Half height bracket not included, only available x8 and x4 configurations	XMC front panel face plate	Full height bracket mounted Half height bracket included	Full height bracket mounted Half height bracket included
Product Codes	PXH832 Host/Target Adapter	PXH842- 2x8 x16/2x8 PXH845 - 4x4 x16/ 2x8/4x4 PXH846 - 1x8 x8 PXH847 - 2x4 x8/ 2x4 PXH848 - 1x4 x4	PXH822 Host/Target Adapter	MXH832 Host/Target Adapter	PXH812 Host/Target Adapter