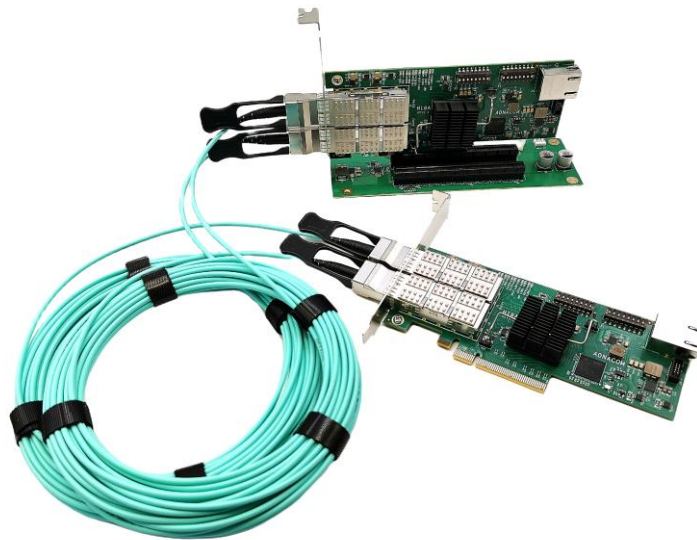


64 Gb/s PCIe Gen 3 Fiber-Optic Extension System



Overview

The Adnacom S18 PCIe Gen 3 extension system enables system integrators to operate a single PCIe Gen 1, Gen 2, or Gen 3 add-in card up to 500 m from the host computer using one or two fiber-optic cables. The S18 requires no additional host software drivers.

System Components

- H18A host adapter
- H18A target adapter
- R10 remote backplane
- QSFP transceivers and cables (optional)

Product Features

- PCIe Gen 3 communication over one or two fiber-optic cables
- 64 Gb/s raw bit rate per direction using eight PCIe Gen 3 lanes over two cables
- Cable lengths up to 500 m (maximum throughput depends on cable length)
- One PCIe x16 slot (x8 electrical) on the remote backplane
- Support for QSFP transceivers, active optical cables (AOCs), and direct attach cables (DACs)
- Manual or automatic power-on/off modes for the remote backplane, selected by DIP switch
- PCIe link, voltage, current, temperature, and QSFP transceiver monitoring via a software utility, API, or web interface
- Remote backplane mounting in a standard ATX or microATX case

S18 Specifications

PCIe Transfer Rate	PCIe Gen 3, 8 GT/s per lane Two cables (x8): 64 Gb/s raw bit rate per direction One cable (x4): 32 Gb/s raw bit rate per direction
Host Adapter	H18A PCIe Gen 3 adapter configured in host mode
Target Adapter	H18A PCIe Gen 3 adapter configured in target mode
Remote Backplane	R10 PCIe Gen 3 backplane with one PCIe x16 slot (x8 electrical)
Transceivers and Cables	One or two QSFP cable connections (4 or 8 PCIe lanes): • Multimode or single-mode optical transceivers with: ○ LC-LC duplex cable (four PCIe lanes optically multiplexed) ○ MPO/MTP cable • Active optical cable (AOC) • Direct attach cable (DAC)

Ordering Information

S18 without transceivers and cables

Part Number: S18

Included items:

- **H18A:** host adapter with standard bracket – 1 pc
- **H18A:** target adapter with standard bracket – 1 pc
- **LP-H18:** low-profile bracket – 2 pcs
- **R10:** remote backplane – 1 pc

S18 with transceivers and cables

Part Number: S18-N-C-L

Included items:

S18 – 1 pc

Transceivers and cables – as specified by N, C, and L

Part number fields:

N – Number of transceiver pairs, AOCs, or DACs: 1 or 2. One transceiver pair consists of two QSFP transceivers.

C – Transceiver and cable option (see the options table)

L – Cable length in meters

Transceiver and Cable Options

Option	Manufacturer	Transceiver or Cable	Cable Type
01	Generic	AOC	AOC assembly
02		Single-mode QSFP with LC connector	LC-LC duplex, OS
03		Multimode QSFP with LC connector	LC-LC duplex, OM
04		Multimode QSFP with MPO connector	MPO/MTP, OM
05		DAC	DAC assembly

LC-LC Cable Maximum Length

Cable Type	Typical Maximum Length
Multimode OM3 50/125 μm	250 m
Multimode OM4 50/125 μm	350 m
Single-mode OS1 9/125 μm	500 m
Single-mode OS2 9/125 μm	500 m

Note: Actual data throughput depends on protocol overhead, transaction size, cable length, and system configuration.

For further information, visit <https://adnacom.com/s18/>.