

Amphenol

COMMUNICATIONS SOLUTIONS

PCIe DirectAttached[®] Cable

Nov 2023



DirectAttached® Cable Introduction



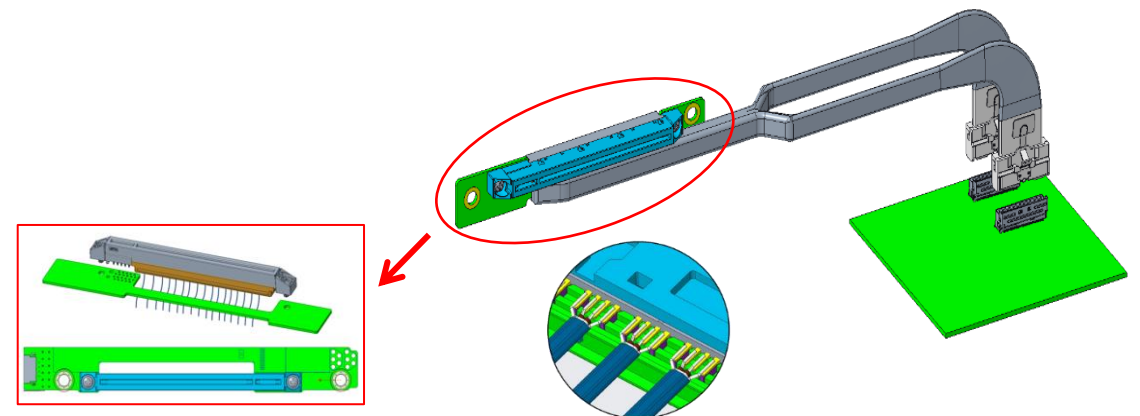
PCIe DirectAttached® cable riser solution supports up to PCIe5.0 data rate of 32Gb/s, eliminates PCB trace and Vias, improves insertion loss by 0.75db @16GHz at 0.5m cable length, and is a replacement to utilizing multiple PCIe riser cards that use multi-level PCB motherboard to route PCIe high-speed signals.

Amphenol's PCIe DirectAttached® cable riser solution with PCIe DirectAttached™ CEM connector on one end of the cable allows the flexibility of a different connection on the other end of the cable, accommodating different PCB form factors such as MCIO, Multi-trak, SlimSAS, EDSFF, OCP, GenZ, or Backplane connectors.

Ideal for use in high-speed computing Datacenter server systems, GPU cards, Riser cards and accelerator cards, this revolutionary solution of using cable to replace legacy PCIe riser cards provides cost-savings and space-savings by eliminating the need for the motherboard PCB and riser card PCBs. It also provides shorter manufacturing production lead-times as riser card PCBA can be done in parallel with cable soldering.

Amphenol tooled Gen5 DirectAttached® Cable Riser, configuration, X8 and X16 are available, and the mating interface is backward compatible with Gen4/3/2/1. Gen6 in roadmap.

- Backward mating adhering to standard PCIe interface but the footprint is different from standard PCIe® CEM
- Wide range of positions available, X8 and X16 tooled
- Flexible selection with a variety of form factors for one cable end



PCIe Gen5 DirectAttached® Cable Options

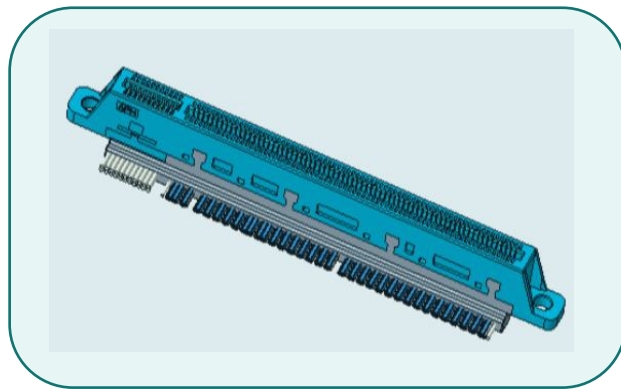
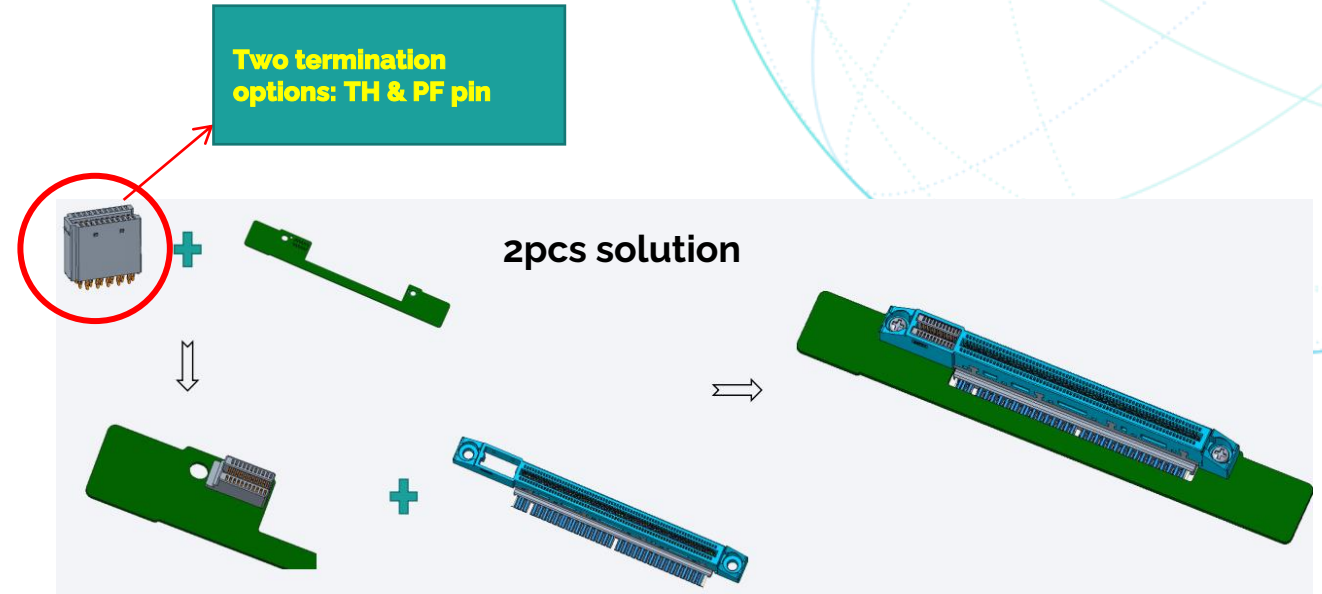
Three options to meet customer different applications:

One-Piece solution: Integrated Press-fit Power+SB (Sideband) pin block with high-speed signal housing.

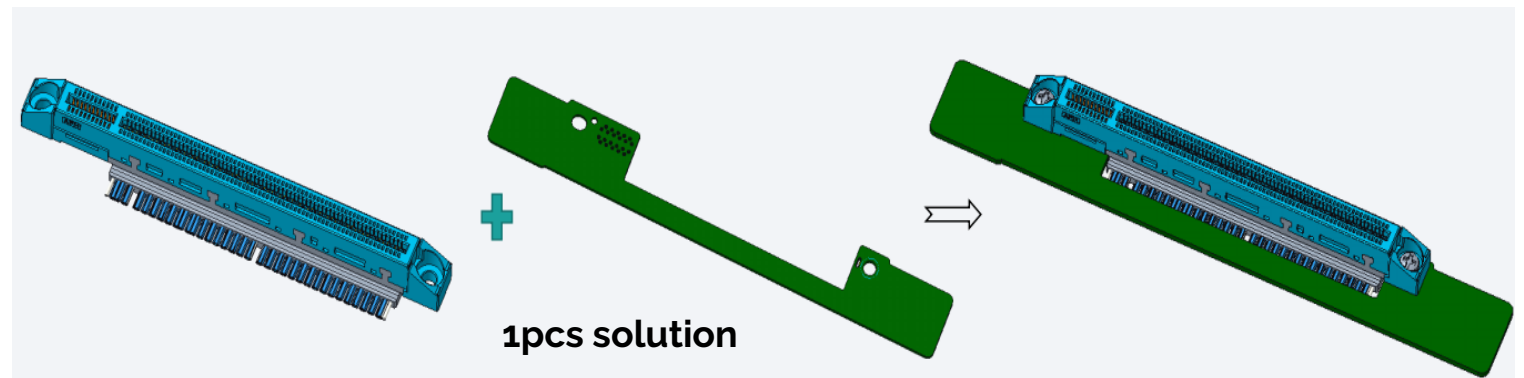
Two-Piece solution: Separate Power+SB pin block from high-speed signal housing, Power+SB pin block can be either Press-fit or PIP options.

Fully Cable Out solution: Power+SB Pin be directly attached to cable

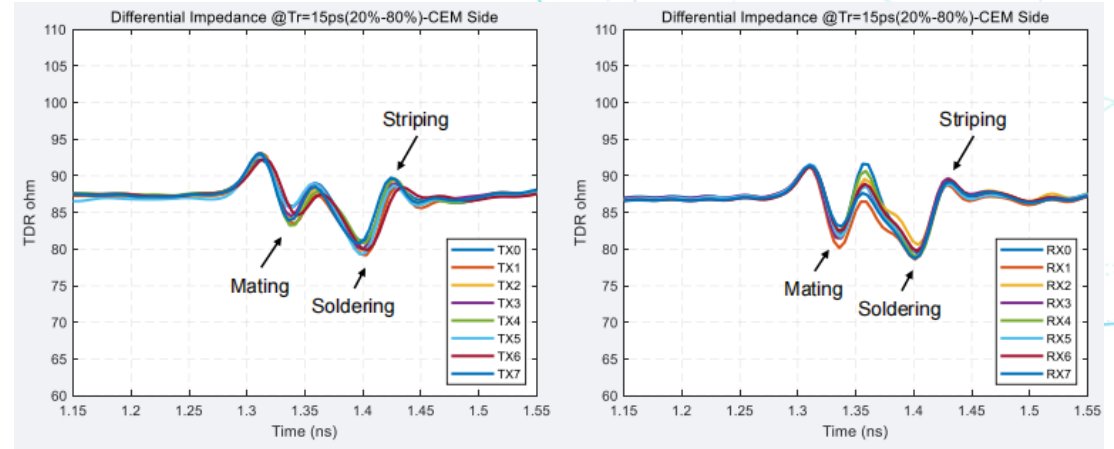
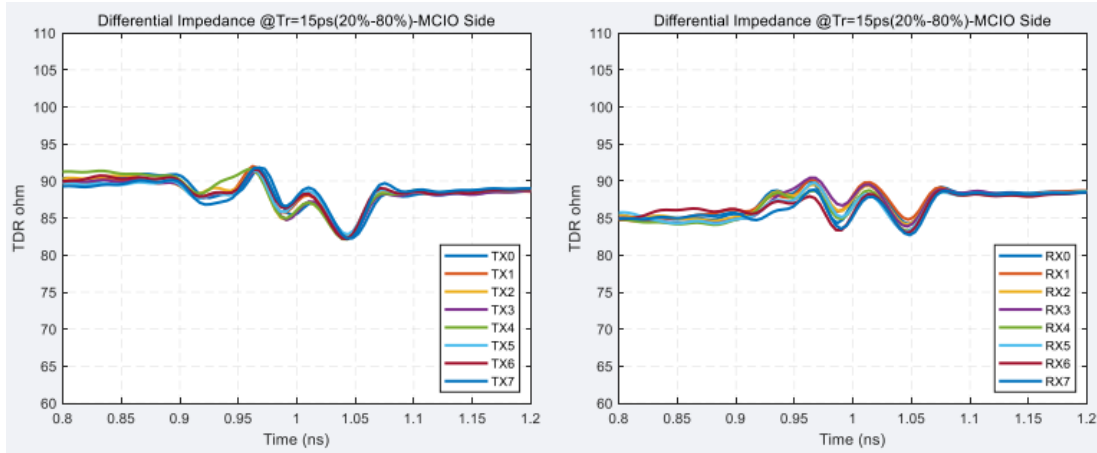
One-piece and two-piece solutions are footprint compatible.



Fully cable out

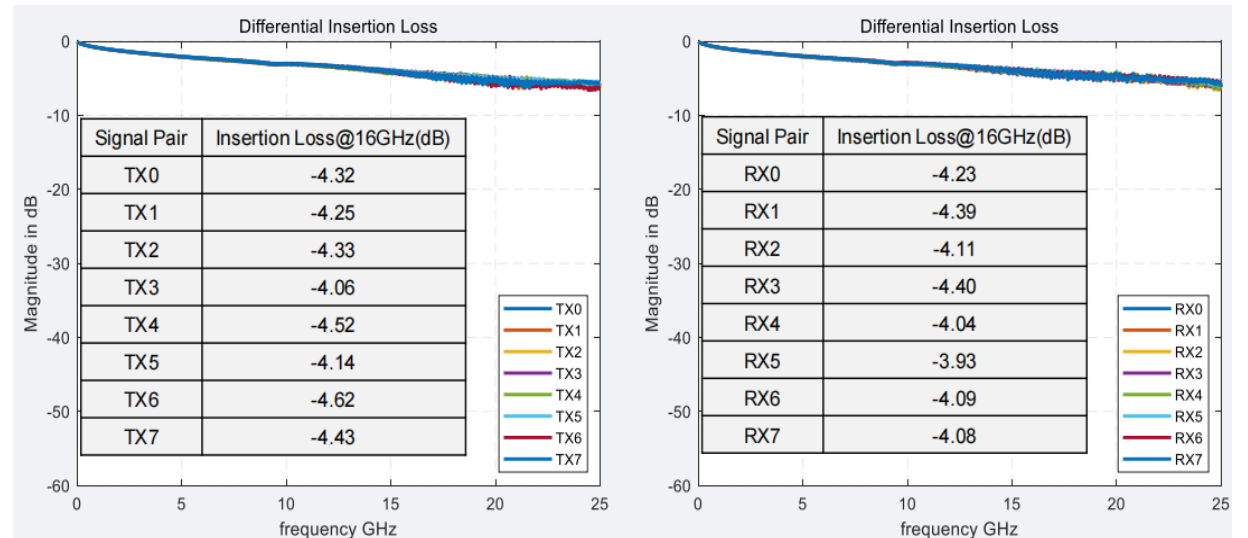
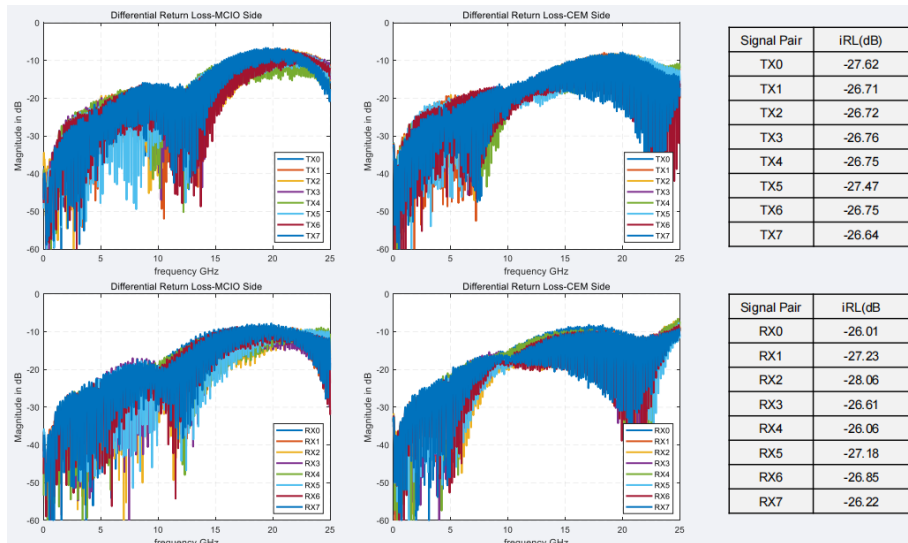


DirectAttached® Cable SI Performance (Gen5)



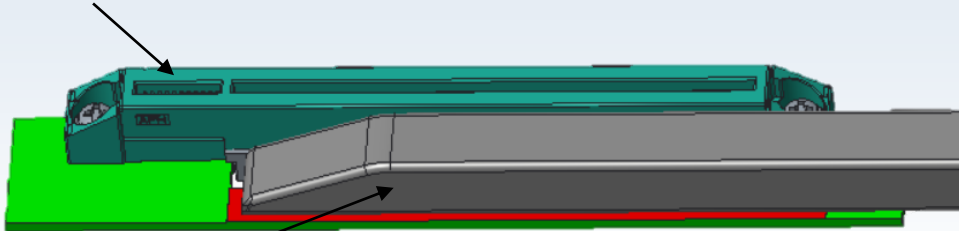
MCIO side

CEM side



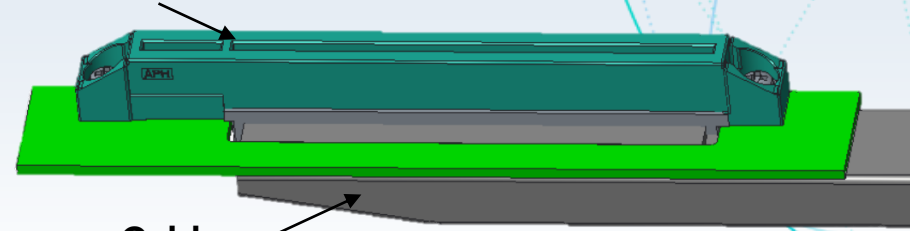
DirectAttached® Cable Riser Solutions

DA CME Connector

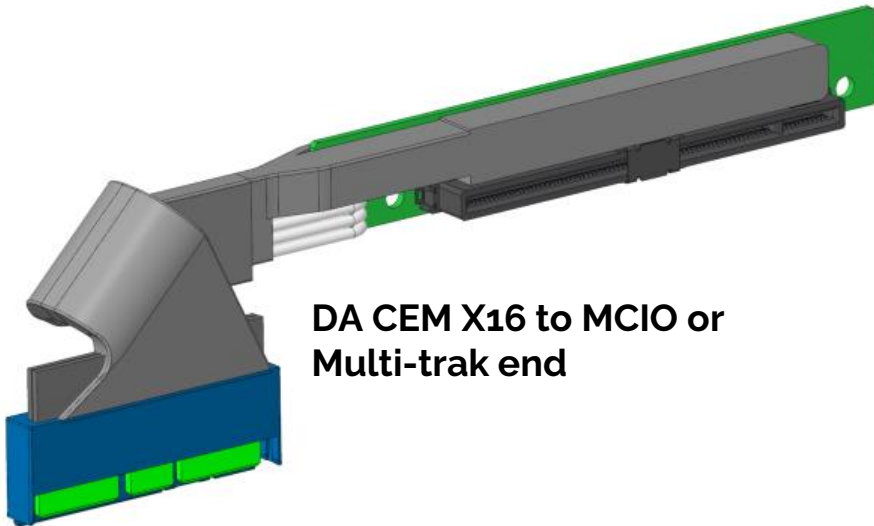


Cable

DA CME Connector

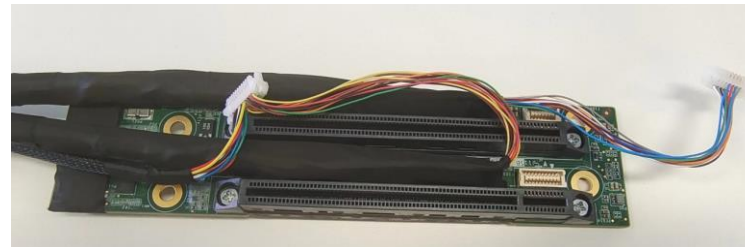


Cable



DA CEM X16 to MCIO or Multi-trak end

2 Slots DA Riser Cable



DirectAttached®



Find more products and resources on the DirectAttached® webpage

Thank You

