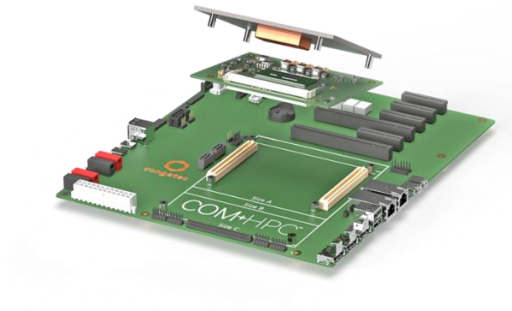


COM-HPC®

Computer-On-Module for High Performance Computing



Why a new standard?

- More than 32 lanes PCIe Gen 3.0 (8 Gb/s)
- 25+ Gb Ethernet per signal pair

COM-HPC target

- Support for PCIe Gen 5.0 (32 Gb/s)
- 64 PCIe Lanes
- Min. 25 Gb Ethernet per signal pair to support 100 Gb Ethernet
- Update of other interfaces

COM-HPC will not replace COM Express.
It extends the Server-On-Module ideas.

COM-HPC Types and Sizes

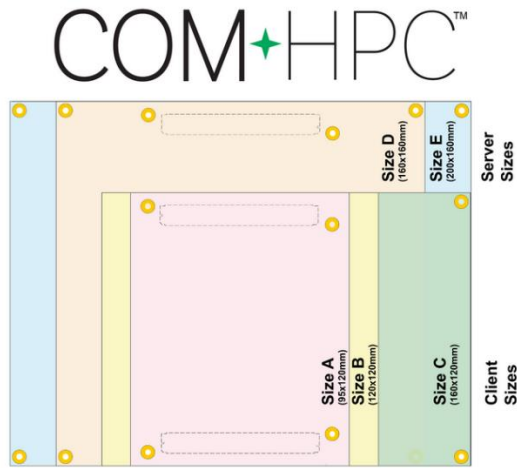
COM-HPC/Server

- Preliminary Data
- Up to 65 PCI Express Gen 5 Lanes
- Up to 8x 25 Gb Ethernet
- Up to 2x USB 4
- Headless
- Sizes
 - ▶ Size D: 160x160 mm
 - ▶ Size E: 160x200 mm

COM-HPC/Client

- Preliminary Data
- Up to 49 PCI Express Gen5 Lanes
- Up to 2x 25 Gb Ethernet
- Up to 4x USB 4
- Up to 4x Video Interfaces
- Sizes
 - ▶ Size A: 95x120 mm
 - ▶ Size B: 120x120 mm
 - ▶ Size C: 120x160 mm

COM-HPC Sizes



COM-HPC Types Overview

COM-HPC™

COM-HPC Client

49x PCIe
2x MIPI-CSI
2x 25GbE KR
3x DDI
2x BaseT (up to 10 Gb)
2x SoundWire, I ² S
4x USB4
4x USB2.0
2x SATA
eSPI, 2x SPI, SMB
2x I ² C, 2x UART
12x GPIO

COM-HPC Server

65x PCIe
8x 25GbE KR
BaseT (up to 10 Gb)
2x USB4
2x USB3.2
4x USB2.0
2x SATA
eSPI, 2x SPI, SMB
2x I ² C, 2x UART
12x GPIO

COM-HPC Connector

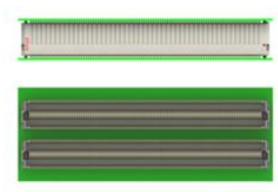
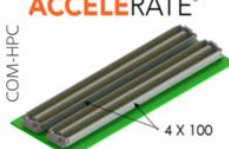
COM-HPC Interconnect Targets

- Signal Integrity
 - ▶ PCIe Gen4/Gen5 Compliant
 - ▶ 10G/25G Ethernet Compliant
- High pin count
- 5 & 10mm stack height
- Up to 300W at 11.4 - 12.6V
- Multi vendor availability



More Performance and Interfaces

SAMTEC ACCELERATE[®]
COM-HPC
4 X 100



DATARATE PER CHANNEL	MAX AGGREGATE DATARATE	DATARATE DENSITY
GEN 5 (32 Gbps)	4096 Gbps	2088 Gbps/in ²