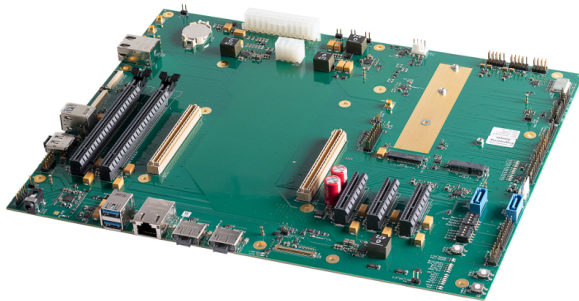


MSC HC-MB-EV

COM-HPC® Client Carrier



305 x 244



tpd W



0 +60

COM+HPC™

Description

The MSC HC-MB-EV is intended for design teams that require an easy and fast enablement of COM-HPC based solutions for lab evaluation, rapid prototyping and application development. Engineers can use it as a reference design for developing their own COM-HPC platform. The COM-HPC Client carrier provides a rich set of COM-HPC Client interfaces routed to the module socket including PCIe and PEG ports, DDI and eDP graphics interfaces, and high speed I/O like USB and SATA. COM-HPC Client modules of either Size A, B and C can be installed on the carrier.

Highlights

- Socket for COM-HPC® Client modules, Size A, B, C
- PCI Express x16 slot (PEG/general PCIe)
- PCI Express x16 slot (general PCIe)
- Three PCI Express slots 1x4
- Support for PCIe Gen 3 and 4
- Two SATA connectors
- M.2 socket for mass storage and AI modules
- Two USB4® Gen 2x2, Type-C connectors
- Two USB 3.2 Gen 2x1 Type-A connectors
- Two 1G/2.5G/10GBASE-T connectors (RJ45)
- Three DisplayPort connectors
- One eDP connector
- HDA audio codec
- Various additional COM-HPC® specific interfaces
- Power supply via ATX-style power connectors
- Wide power input range
- Size 305mm x 244mm (ATX)

Technical Data - MSC HC-MB-EV

Formfactor	ATX
Flash	M.2 socket for mass storage and AI modules: PCIe x4 Card lengths 42/80/110 mm, M-key, max. 15W
Storage Interfaces	2x SATA up to 6Gb/s on on-board connectors
USB	2x USB4 Gen 2x2, Type-C connector on faceplate, 15W power delivery each 2x USB 3.2 Gen 2x1, Type-A connector on faceplate 4x USB 2.0 available on pin headers Supported USB modes depending on installed COM-HPC module capabilities
Bus Interfaces	PCI Express™ Gen 3 and 4 One PEG port x16 on PCI Express x16 socket; max. 75W One PCI Express slots 1x16; Three PCI Express slots 1x4; one slot max. 25W, two slots max. 10W Maximum connectivity and bandwidth is determined by installed COM-HPC module and PCIe cards
Display Interfaces	DisplayPort: Three DisplayPort connectors on faceplate Embedded DisplayPort: One 40-pin eDP on-board connector MIPI CSI: Two MIPI CSI connectors on-board MIPI DSI: Module signals shared with eDP
Network Interface	Two RJ45 LAN connectors on faceplate Routed to COM-HPC module socket Support up 10/100/1000, 2.5GBASE-T or 10GBASE-T depending on installed COM-HPC module capabilities Two status LED's integrated per connector
Audio Interface	HDA audio codec Cirrus Logic CS4207 Audio interfaces available at triple audio jack on faceplate: Line In, Line Out/Headphones, Microphone

Miscellaneous	<p>Various pin-headers providing: GPIO, SMBus, I²C bus, SPI, power button, reset button, power conditions and other system signals</p> <p>PORT 80 display</p> <p>Serial high speed port: Two ports routed from module socket to on-board pin headers</p> <p>BIOS Flash Pin-header for external BIOS Flash, selectable either on-board or on the module</p> <p>Fan: 4 pin fan connector; PWM controlled by COM Express module</p> <p>EEPROM One serial EEPROMs on I²C bus</p> <p>Battery: CR 2032 type RTC battery (3V, socketed)</p>
Feature Highlights	<p>Carrier board for COM-HPC[®] Client pin-out</p> <p>Note: availability and capabilities of interfaces determined by installed COM-HPC Client module and I/O cards.</p>
Power Requirement	<p>ATX supply via Standard 24pin ATX and ATX12V connectors</p> <p>Single voltage supply via ATX12V connector (optionally wide input range 8V to 20V)</p>
Environment	<p>Ambient Temperature: 0° ... 60°C (operating), -25° ... 85°C (storage)</p> <p>Humidity: 5 ... 95% (operating, non-condensing), 5 ... 95% (storage, non-condensing)</p>
Dimensions	305mm x 244mm

Order Reference - MSC HC-MB-EV

Order Number	Description	Reference	Cat*
tbd	COM-HPC Client Carrier Board with 1x PEG x16, 1x PCIe x16, 3x PCIe x4 slots; 2x USB 4.0 Gen 2.2, 2x USB 3.2 Gen 2x1, 2x 1G/2.5G/10GBASE-T, 2x SATA; 3x DisplayPort, 1x eDP, HDA audio; 1x M.2 socket; 24pin ATX and ATX12V power connectors; Dimensions: 305mm x 244mm (ATX form factor);	MSC HC-MB-EV	PV

*COM products are divided in two categories, „PV“ (preferred variant) and „OR“ (on request).

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