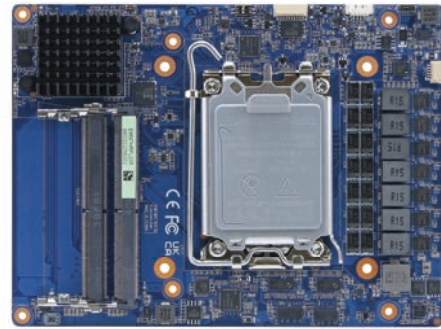


ESM-HRPL

Intel® 12/13/14th Gen Core™ Processors
COM-HPC® Client Size C Module



Product Features

- Intel® R680E chipset
- 4 x 262-Pin DDR5 SO-DIMM supports up to 128GB, 3600~4000MT/s, optional ECC support (CPU depending)
- 2 x Intel® i226-V 2.5G Gigabit Ethernet Controller
- 4 x USB3.2 Gen2x2, 8 x USB2.0, 2x SATAIII
- Standard 0°C ~ 60°C (32°F ~ 140°F)
- Intel® 12/13/14th Core™ i9/i7/i5/i3 Processor, supports up to 65W Max
- 1 x PCIe16 Gen5, 1 x PEGx4, 2 x PCIe4, 9 x PCIe1 Gen3, 1 x PCIe1 Gen3 for BMC
- 3 x DDI, 1 x eDP
- 1 x Audio, 1 x I2C, 1 x SMBus, 1 x GSPI, 1 x IPMB, 1 x SPI

Specification

System Information

Processor	Intel® 12/13/14th Core™ i9/i7/i5/i3 Processor, supports LGA 1700 CPU Up to 65W Max
Platform Controller Hub	Intel® R680E chipsets
System Memory	4 x 262-Pin DDR5 SO-DIMMs support up to 128GB, 3600~4000MT/s, optional ECC support (CPU depending)
I/O Chipset	EC ITE IT5782
Watchdog Timer	H/W Reset, 1Sec. ~ 65535Sec. and 1Sec./Step
BIOS	AMI uEFI BIOS, 256 Mbit SPI Flash ROM
H/W Status Monitor	Monitoring System Temperature Voltage and FAN Status with Auto Throttling Control
TPM	Optional NuvoTon NPCT754AADYX TPM 2.0

Expansion

Expansion	1 x PCIe16 Gen5, bifurcatable to 2 x PCIe8 Gen5 1 x PEGx4 2 x PCIe4, 9 x PCIe1 Gen3 1 x PCIe1 Gen3 for BMC (owned by carrier board)
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Display

Graphic Chipset	Intel® UHD Graphics 770 up to 32EUs
Spec. & Resolution	3 x DDI ports support configurable DP1.4a or HDMI2.1b 1 x eDP1.4b
Multiple Display	Quadruple Independent Displays

Ethernet

LAN Chipset	2 x Intel® i226V 2.5G Gigabit Ethernet Controller, co-lay with i226LM
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Software Support

OS	Windows 11 LTSC Linux
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I/O

USB	4 ports support USB3.2 Gen2x2 8 ports support USB2.0
SMBus	1 port supports SMBus
SATA	2 ports support SATAIII
DIO	12 ports support GPIO
Other	1 x Smart FAN on COM-HPC module 1 port supports Smart FAN for carrier Each 1 port supports Audio, I2C, GSPI, IPMB, SPI
UART	2 x UART (2 wire)

Mechanical & Environmental

Operating Temp.	With CPU cooler, supports 0°C ~ 60°C (32°F ~ 140°F) with 0.5m/s air flow
Storage Temp.	-20°C ~ 75°C (-4°F ~ 167°F)
Operating Humidity	40°C @ 95% Relative Humidity, Non-condensing
Dimension (L x W)	120 x 160mm (COM-HPC Client size C)