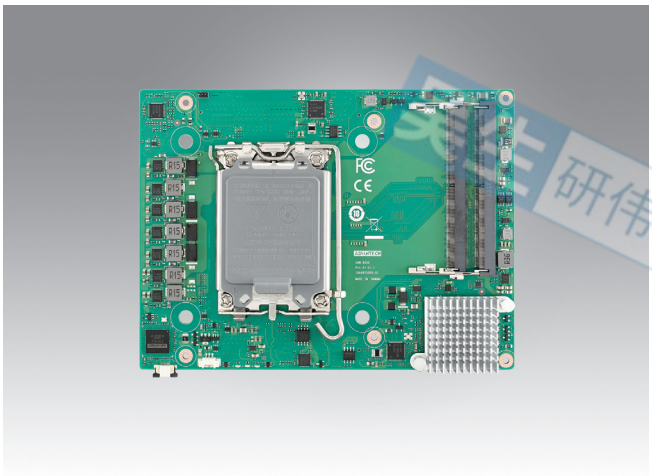
SOM-C350

Intel® 12th Gen Core Processors
COM-HPC® Client Size C Module



Windows Server Windows Embedded WISE-PaaS/DeviceOn iManager

Features

- COM-HPC® client size C module pin out
- High scalability with socket type LGA 1700 CPU + R680E PCH
- 4 SODIMM DDR5 w/ ECC/non-ECC, max. 128GB
- High performance iRIS Xe graphic engine and PCIe x16 Gen5
- High speed Ethernet 2.5GbE with TSN and USB 3.2 Gen2x2
- Supports iManager, WISE-PaaS/DeviceOn and embedded software APIs

Software APIs: Watchdog, I²C, SMBus, H/W Monitor, GPIO

Utilities: BIOS flash, Monitoring, Embedded Security ID

研伟科技 15323456800

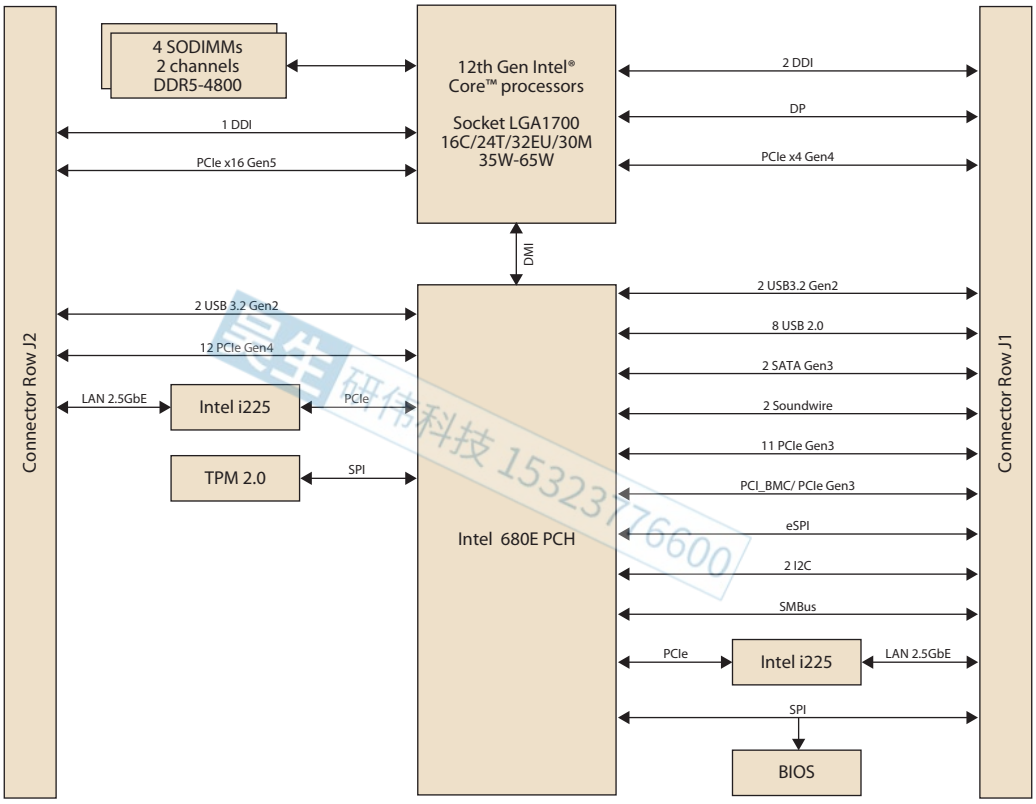
Specifications

Form Factor	Form Factor	COM-HPC® Size C Module
	Pin-out Type	Client pin out
Processor System	CPU	Intel Alder Lake-S Desktop CPU
	Core Number	Up to 16C/24T/32EU/30M
	Socket Type	LGA 1700
	Platform Controller Hub	Intel 680E
	BIOS	AMI UEFI 256Mbit
Memory	Technology	DDR5 4800 MT/s
	ECC Support	ECC or non-ECC
	Max. Capacity	up to 128GB
	Memory Type	4 U-DIMM sockets
Display	Interface	2 ports DDI and 1 port eDP
	Resolution	Up to 8k
Expansion	PCI Express x16	1 PCIe x16 Gen5, and bifurcatable to 2 x8, 1 x8 & 2 x4, or 4 x4
	PCI Express x1 (Gen4)	1 port PCIe x4 Gen4 (from CPU) and 12 ports PCIe x1 Gen4 (from PCH)
	PCI Express x1 (Gen3)	9 ports PCIe x1 Gen3 and 1port PCIe x1 Gen3 reserved for BMC
Serial Bus	SMBus	Yes
	I²C Bus	Yes. 1 port from EC (100kb/s & 400kb/s master mode support) and 1 port from PCH
Ethernet	2.5GbE	2 port 2.5GbE with TSN support
I/O	SATA	2 ports support SATA III 6.0Gb/s
	USB3.2 Gen2x2	4 Ports
	USB2.0	8 ports
	SPI Bus	2 ports (for BIOS ROM and GP_SPI)
	GPIO	4 ports GPI and 4 ports GPO
	Watchdog	65536 level, 0 ~ 65535 sec
	COM Port	2 Ports (2-Wire)
	TPM	TPM 2.0 (Infineon 9670)
	Smart Fan	2 Ports (for COM Module and carrier board. support 12V Fan)
Power	Type	ATX: Vin, VSB, AT: Vin
	Supply Voltage	Vin: 8~20V, VSB: 5V±5%, RTC Battery: 2.0-3.3V
	Power Consumption (Max.)	N/A
	Power Consumption (Idle)	N/A
Environment	Temperature	Operating Standard: 0 ~ 60° C (32 ~ 140° F), Extend: -40 ~ 85° C (-40 ~ 185° F) with 0.7m/s air flow. Storage: -40 ~ 85° C (-40 ~ 185° F)
	Humidity	Operating: 40 °C @ 95% relative humidity, non-condensing Storage: 60 °C @ 95%relative humidity, non-condensing
	Vibration Resistance	3.5 Grms
Mechanical	Dimensions	160 x 120 mm (6.30" x 4.73")

All product specifications are subject to change without notice.

Last updated: 4-Jan-2022

Block Diagram



Ordering Information

Part No.	CPU	Core	Freq.	CPU TDP	LLC	Memory	SSD	Giga LAN	10GBase-KR	PEG x16	PCIe x8	PCIe x1	USB 2.0	USB 3.0	SATA III	LPC	Power	Thermal solution	Operating Temp.
N/A																			

* Other combination is project based support. Please contact sales for details.

Optional Accessories

Part No.	Description
N/A	Semi-Cooler

Development Board

Part No.	Description
N/A	

Packing List

Part No.	Description	Quantity
N/A	SOM-C350 COM-HPC module	1
N/A	Heatspreader	1

Embedded OS

OS	Part No.	Description
N/A		