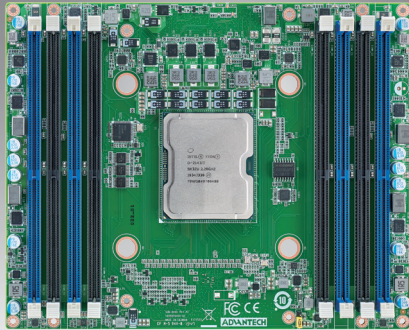


# SOM-8990

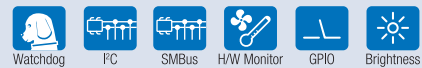
## Intel® Xeon® D-2100 Processor (Code Name: Skylake-D) COM-HPC® Server Size E



### Features

- Intel® Xeon® D-2100 Processor Product Family
- COM-HPC® Server Size E Module
- 16 Cores, 32 Threads, 100W TDP
- Dual Channel DDR4 RDIMM/LRDIMM, max. 512GB (Both ECC & Non-ECC)
- High Speed I/Os: 2 USB3.0, 2 PCIe x16 Gen3, 15 PCIe x1 Gen3 (1 for BMC), and 2 SATA3.0
- High speed Ethernet (4 10GBASE-KR interfaces, one GbE)
- Supports iManager, Embedded Software APIs and WISE-DeviceOn

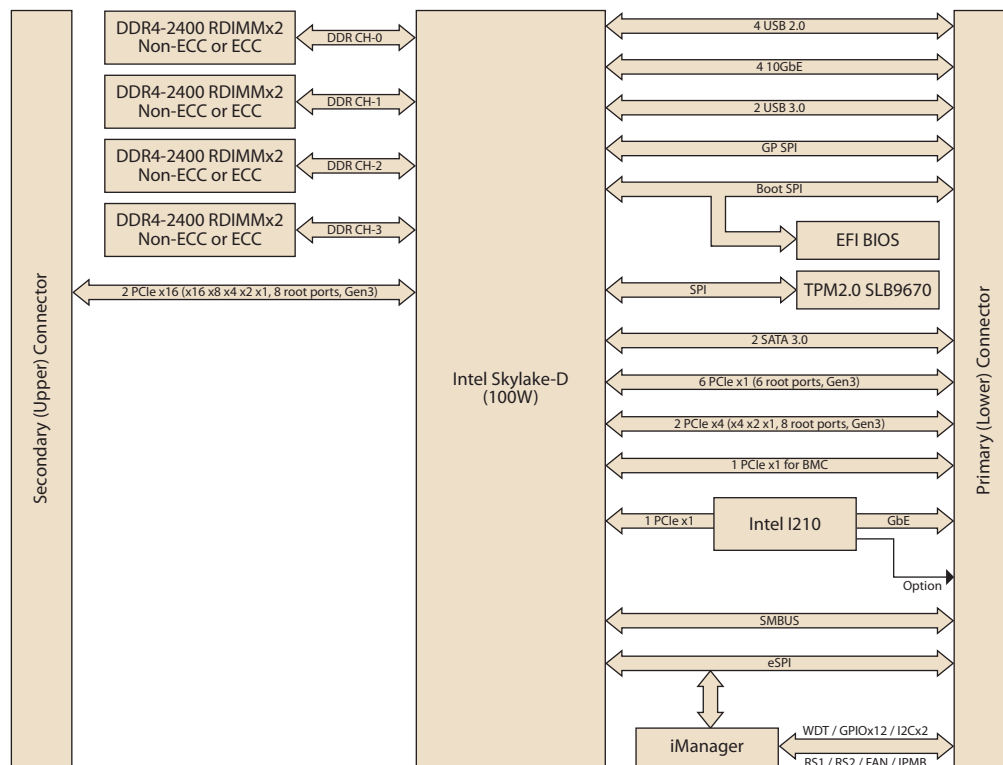
#### Software APIs:



### Specifications

Form Factor	Form Factor	COM-HPC® Size E
	Pin-out Type	COM-HPC® Server
Processor System	CPU	D-2183
	Base Frequency	2.2 GHz
	Max Single Core Turbo Frequency	3.0 GHz
	Core/Thread	16/32
	LLC	22MB
	CPU TDP	100W
	BIOS	AMI UEFI 256Mbit
Memory	Technology	DDR4 up to 2400 Mhz
	Speed	2400 Mhz
	ECC Support	Yes
	Max. Capacity	Up to 512GB
	Socket	8 288P RDIMM/LRDIMM (Dual Channel)
Expansion	PCI Express x16	2 PCIe x16 Gen3
	PCI Express x1	14 PCIe x1 Gen3
	PCI Express for BMC	1 PCIe x1 Gen3 dedicated for BMC
	eSPI	Yes
Serial Bus	SMBus	Yes
	I2C Bus	Yes
Ethernet	10Gb Ethernet	4 10GbE
	Gigabit	Intel I210; 10/100/1000 Mbps
I/O	SATA3.0	2 Ports (6 Gbps)
	USB3.0	2 Ports (5 Gbps)
	USB2.0	4 Ports (480 Mbps)
	SPI Bus	Yes. 1 for BIOS EEPROM; 1 for GP_SPI
	GPIO	12-bit GPIO
	Watchdog	65536 level, 0 ~ 65535 sec
	COM Port	2 Ports (2-Wire)
	TPM	TPM2.0
	Smart Fan	2 Ports: 1 port on COM module (Notice: the input voltage of fan is aligned to Vin); 1 port on carrier board
	Power	Type
Supply Voltage		Vin: 12V ± 5%; VSB: 4.75V ~ 5.25V, RTC Battery: 2.3V ~ 3.3V
Power Consumption (Max.)		TBD
Power Consumption (Idle)		TBD
Environment	Operating Temperature	0 ~ 60 °C (32 ~ 140 °F)
	Storage Temperature	-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	200 x 160 mm

## Block Diagram



## Ordering Information

Part No.	SoC	Core/Thread	Base Freq.	1T Boost Freq.	SoC TDP	LLC	DDR4 RDIMM	Thermal solution	Operating Temp.
SOM-8990D16-U2A1	D-2183IT	16/32	2.2GHz	3.0GHz	100W	22MB	2400Mhz	Active	0 - 60 °C

Any other SKUs or combination is project based support. Please contact sales for details.

## Optional Accessories

Part No.	Description
TBD	Semi-heatsink to be used with heatspreader
TBD	One piece heatsink
TBD	Addon fan module to be used on top of semi-heatsink/heatsink

## Development Board

Part No.	Description
TBD	Development Board SOM-DB8990

## Packing List

Part No.	Description	Quantity
-	SOM-8990 CPU Module	1
TBD	Heatspreader	1

## Embedded OS

OS	Part No.	Description
Windows Server 2016	TBD	TBD