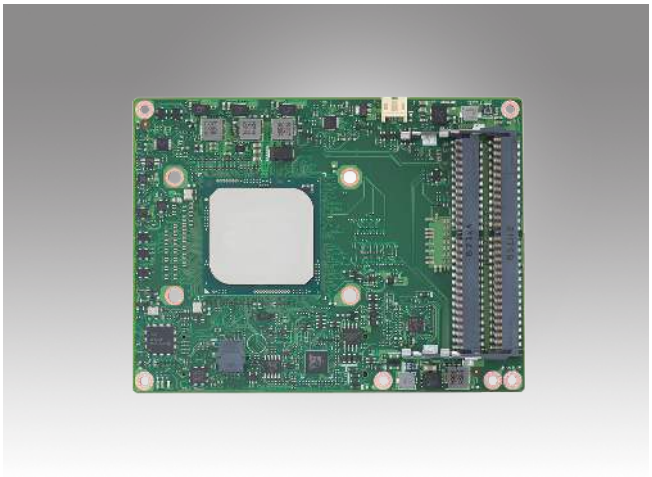
SOM-5992

Intel Xeon Processor D-1500 COM Express R3.0 Type 7 Module



Features

- Intel® Xeon® Processor D-1500 Product Family
- COM Express R3.0 Basic Module Type 7 pin out
- 2~16 core processor, with max. TDP 45W
- Dual-CH DDR4 2400 w/ECC, max. 128GB
- High speed Ethernet (dual 10GBASE-KR interfaces, one GbE)
- Abundant expansion. (PCIe x16, PCIe x8, 8 PCIe x1)
- Supports iManager, Embedded Software APIs and Wise-PaaS/RMM

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

Utilities: BIOS flash, Monitoring, Embedded Security ID

Windows Embedded, Windows Server, iManager WISE-PaaS/RMM, CE, FCC

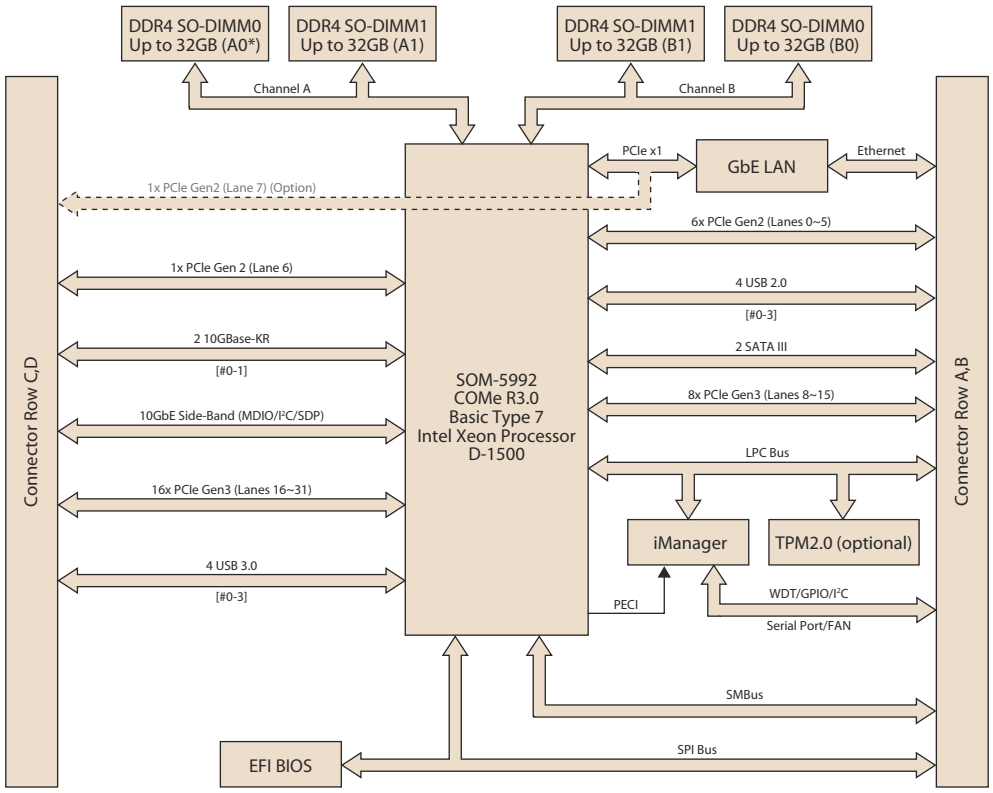
Specifications

Form Factor	Form Factor	COM Express Basic Module									
	Pin-out Type	COM Express R3.0 Type 7 compatible									
Processor System	CPU	Xeon D-1577	Xeon D-1548	Xeon D-1537	Xeon D-1528	Xeon D-1527	Pentium D1517	Pentium D1508	Xeon D-1559	Xeon D-1539	Pentium D1519
	Base Frequency	1.3 GHz	2.0 GHz	1.7 GHz	1.9 GHz	2.2 GHz	1.6 GHz	2.2 GHz	1.5 GHz	1.6 GHz	1.5 GHz
	Max Single Core Turbo Frequency	2.1 GHz	2.6 GHz	2.3 GHz	2.5 GHz	2.7 GHz	2.2 GHz	2.6 GHz	2.1 GHz	2.2 GHz	2.1 GHz
	Cores	16	8	8	6	4	4	2	12	8	4
	LLC	24MB	12MB	12MB	9MB	6MB	6MB	3MB	18MB	12MB	6MB
	CPU TDP	45W	45W	35W	35W	35W	25W	25W	45W	35W	25W
	BIOS	AMI UEFI 128Mbit									
Memory	Technology	DDR4 1866/2133/2400MHz									
	Max. Frequency	2133 MHz	2400 MHz	2133 MHz	2133 MHz	2133 MHz	2133 MHz	1866 MHz	2133 MHz	2133 MHz	2133 MHz
	ECC Support	ECC and non-ECC									
	Max. Capacity	up to 128GB									
	Socket	Dual Channel, 4x 260P SODIMM									
Expansion	PCI Express x16	1 PCIe x16 Gen.3, and bifurcatable to 2 x8, 1 x8 & 2 x4, or 4 x4									
	PCI Express x8	1 PCIe x8 Gen.3, and bifurcatable to 2 x4									
	PCI Express x1	7 Ports, PCIe x1 Gen.2, and bifurcatable to x2 or x4 (max. 8 Ports if remove GbE LAN)									
	LPC	Yes. 33MHz, support DMA read/write									
Serial Bus	SMBus	Yes									
	I²C Bus	Support 100Kb/s & 400Kb/s devices. Default master mode, optional slave mode									
Ethernet	10GB Ethernet	Intel integrated 2x 10G LAN contorller; Interface: 10GBase-KR									
	Gigabit	Intel I210AT/I210IT controller; Speed: 10/100/1000 Mbps									
I/O	SATA	2 ports support SATA III 6.0Gb/s									
	USB3.0	4 Ports									
	USB2.0	4 Ports									
	SPI Bus	Yes. for BIOS ROM									
	GPIO	8-bit GPIO									
	Watchdog	65536 level, 0 ~ 65535 sec									
	COM Port	2 Ports (2-Wire)									
	TPM	TPM2.0 (optional)									
	Smart Fan	2 Ports; 1 Port on COM Module. Support 12V Fan, 1 Port on Carrier Board									
Power	Type	ATX: Vin, VSB, AT: Vin									
	Supply Voltage	Vin: 8.5 (9-5%) ~ 20V (19+5%), VSB: 5V±5%, RTC Battery: 2.0-3.3V									
	Power Consumption (Max.)	Burn-in: 50.26W ; Turbo on: 55.53W									
	Power Consumption (Idle)	12.34W									
Environment	Temperature	Operating Standard: 0 ~ 60° C (32 ~ 140° F) Extend Temp. : -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, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 hr/axis									
Mechanical	Dimensions	125 x 95 mm (4.92" x 3.74")									

All product specifications are subject to change without notice.

Last updated: 23-Feb-2026

Block Diagram



*Note: A0 (the higher slot in front side) is the 1st priority for system boot up.

Ordering Information

Part No.	CPU	Core	Freq.	CPU TDP	LLC	DDR4 SODIMM	Giga LAN	10GBase-KR	PEG x16	PCIe x8	PCIe x1	USB 2.0	USB 3.0	SATA III	LPC	Power	Thermal solution	Operating Temp.
SOM-5992D8-U0A1	Xeon D-1548	8	2.0	45W	12MB	ECC/non ECC	1	2	1	1	7	4	4	2	Yes	AT/ATX	Active	0 ~ 60 °C
SOM-5992D8-S7A1	Xeon D-1537	8	1.7	35W	12MB	ECC/non ECC	1	2	1	1	7	4	4	2	Yes	AT/ATX	Active	0 ~ 60 °C
SOM-5992D6-S9A1	Xeon D-1528	6	1.9	35W	9MB	ECC/non ECC	1	2	1	1	7	4	4	2	Yes	AT/ATX	Active	0 ~ 60 °C
SOM-5992D4-U2A1	Xeon D-1527	4	2.2	35W	6MB	ECC/non ECC	1	2	1	1	7	4	4	2	Yes	AT/ATX	Active	0 ~ 60 °C
SOM-5992P4-S6A1	Pentium D1517	4	1.6	25W	6MB	ECC/non ECC	1	2	1	1	7	4	4	2	Yes	AT/ATX	Active	0 ~ 60 °C
SOM-5992P2-U2A1	Pentium D1508	2	2.2	25W	3MB	ECC/non ECC	1	2	1	1	7	4	4	2	Yes	AT/ATX	Active	0 ~ 60 °C
SOM-5992D16-S3A1	Xeon D-1577	16	1.3	45W	24MB	ECC/non ECC	1	2	1	1	7	4	4	2	Yes	AT/ATX	Active	0 ~ 60 °C
SOM-5992D12X-S5A1	Xeon D-1559	12	1.5	45W	18MB	ECC/non ECC	1	2	1	1	7	4	4	2	Yes	AT/ATX	Active	-40 ~ 85 °C
SOM-5992D8X-S6A1	Xeon D-1539	8	1.6	35W	12MB	ECC/non ECC	1	2	1	1	7	4	4	2	Yes	AT/ATX	Active	-40 ~ 85 °C
SOM-5992D8F-U0A1	Xeon D-1548	8	2.0	45W	12MB	ECC/non ECC	1	2 (for SFI PHY)	1	1	7	4	4	2	Yes	AT/ATX	Active	0 ~ 60 °C

Note: Any other sku or combination is project based support. Please contact sales for details.

Optional Accessories

Part No.	Description
1960048820N001	Semi-Cooler 125 x 95 x 33.5 mm with 12V Fan
1960075879N001	Cooler 66 x 60 x 23 mm with 12V Fan
SQR-SD4N32G2K6SEME	SODIMM DDR4 2666, 32GB , ECC
SQR-SD4N32G2K6SNME	SODIMM DDR4 2666, 32GB , No ECC

Packing List

Part No.	Description	Quantity
-	SOM-5992 COM module	1
1960081925N011	Heatspreader	1

Development Board

Part No.	Description
SOM-DB5920-00A1	COM-Express Development Board, Type 7 Pin-out (with EA60 2 ports RJ45)
SOM-DB5920-F0A1	COM-Express Development Board, Type 7 Pin-out (with EA61 2 ports SFP+)

Embedded OS

OS	Part No.	Description
Win10	2070015250	Img Win10 IoT Ent_LTSB 64 bit