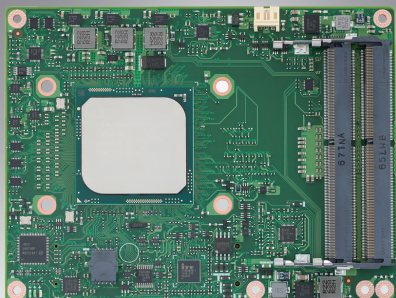


SOM-5992

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

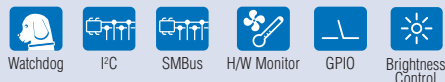
Preliminary



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. 64GB
- 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:



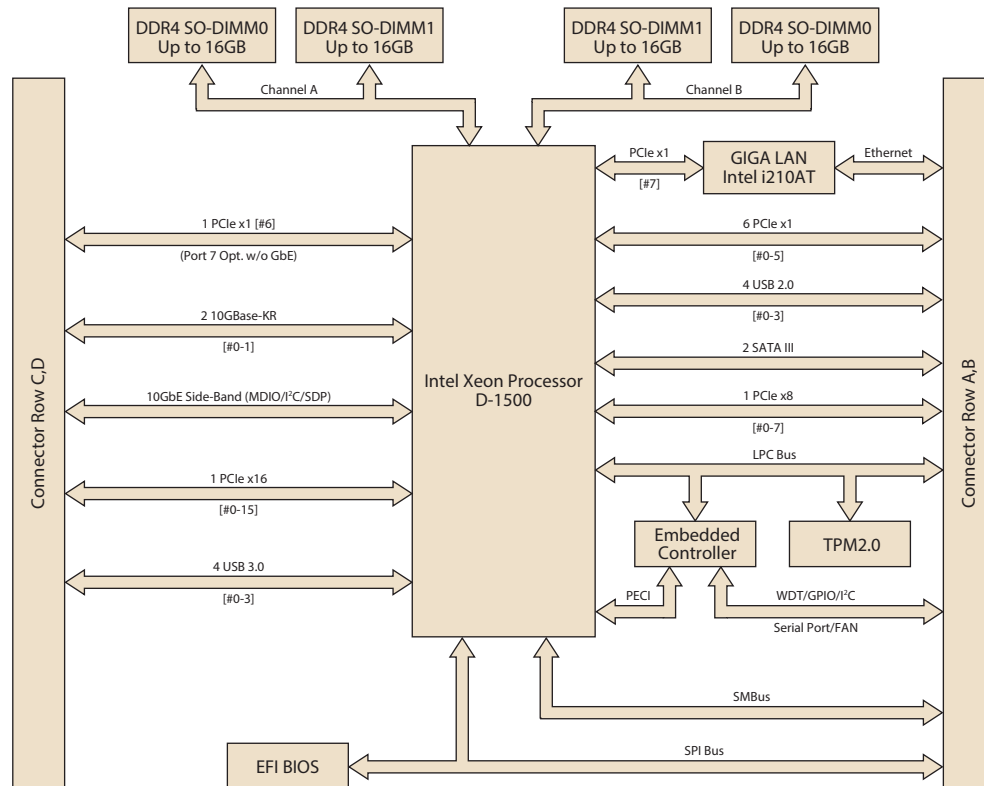
Utilities:



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-1527	Pentium D1517	Pentium D1508	Xeon D-1559	Xeon D-1539	Pentium D1519	
	Base Frequency	1.3 GHz	2.0 GHz	1.7 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	2.7 GHz	2.2 GHz	2.6 GHz	2.1 GHz	2.2 GHz	2.1 GHz	
	Cores	16	8	8	4	4	2	12	8	4	
	LLC	24MB	12MB	12MB	6MB	6MB	3MB	18MB	12MB	6MB	
	CPU TDP	45W	45W	35W	35W	25W	25W	45W	35W	25W	
	BIOS	AMI UEFI 128Mbit									
Memory	Technology	DDR4 1866/2133/2400MHz									
	ECC Support	ECC and non-ECC									
	Max. Capacity	up to 64GB									
	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									
	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 controller; Interface: 10GBase-KR									
	Gigabit	Intel i210AT 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									
	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.)		TBD									
Power Consumption (Idle)		TBD									
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")									

Block Diagram



Ordering Information

Part No.	CPU	Core	CPU TDP	DDR4 SODIMM	Giga LAN	10GBase-KR	PEG x16	PCIe x8	PCIe x1 (max.)	USB 2.0	USB 3.0	SATA III	LPC	Power	Thermal solution	Operating Temp.
SOM-5992X8-U0A1E	Xeon D-1548	8	45W	ECC/non ECC	1	2	1	1	8	4	4	2	Yes	AT/ATX	Active	0 ~ 60° C

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

Development Board

Part No.	Description
SOM-DB5920-00A1E	COM-Express Development Board, Type 7 Pin-out