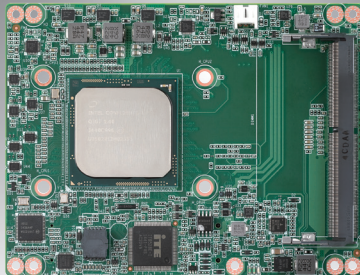


SOM-5991

Intel® Xeon® Processor D-1500 Product Family COM Express® Basic Module Type 6

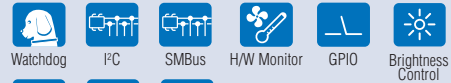
NEW



Features

- Intel® Xeon® Processor D-1500 Product Family
- COM Express R2.1 Basic Module Type 6 pin out compatible
- Up to 16 core with TDP 45W
- Dual DDR4 2400, 1.2V Low Power Memory, up to 32GB
- Integrated high speed 10GbE interface
- PCIe x16, 8 PCIe x1, 2 x 10GBASE-KR interface
- Supports iManager, and Embedded Software APIs

Software APIs:



Utilities:

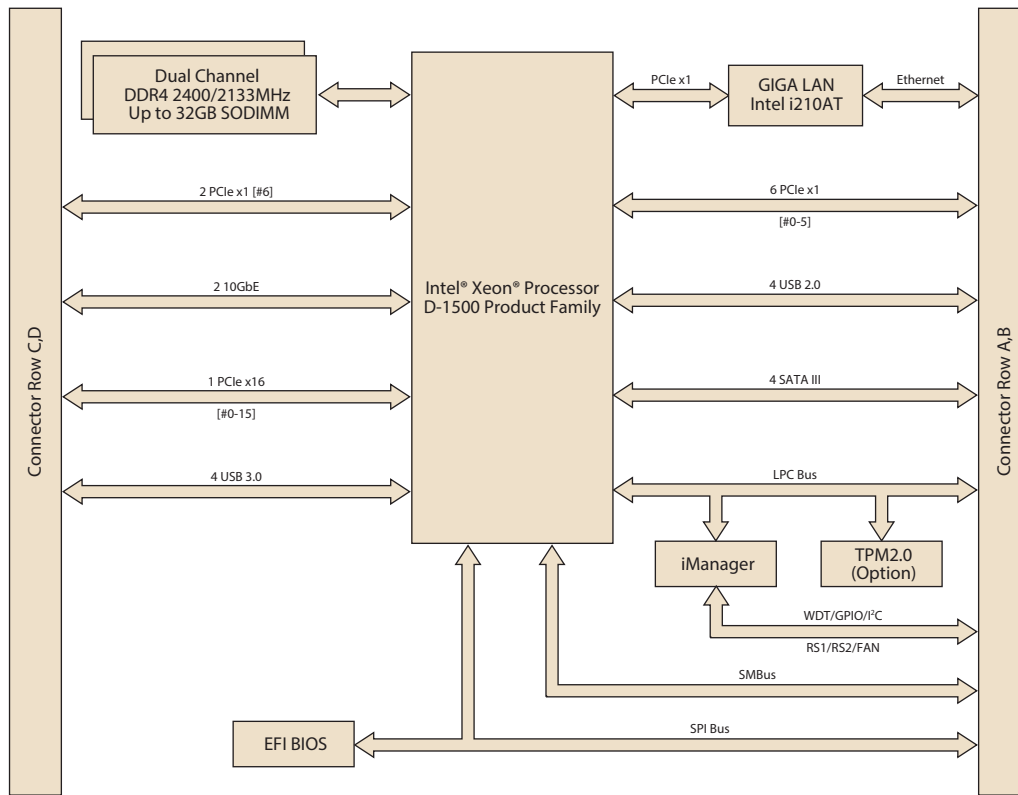


iManager CE FCC

Specifications

Form Factor	Form Factor	COM Express Basic Module	
	Pin-out Type	COM Express R2.1 Type 6 compatible	
Processor System	CPU	Xeon D-1548	Pentium D1508
	Base Frequency	2.0 GHz	1.6 GHz
	Max Single Core Turbo Frequency	2.6 GHz	2.2 GHz
	Core	8	2
	LLC	12MB	3MB
	CPU TDP	45W	25W
	BIOS	AMI UEFI 128Mbit	
Memory	Technology	DDR4 up to 2400MHz	
	ECC Support	Support ECC	
	Max. Capacity	up to 32GB	
	Socket	Dual Channel 260P SODIMM	
Expansion	PCI Express x16	1 port support up to Gen3 8.0 GT/s Bifurcatable to 2 x8, 1 x8 & 2 x4, or 4 x4	
	10GBASE-KR	2 x 10GBASE-KR Interfaces, with side-band MDIO and I²C control signals	
	PCI Express x1	8 ports support up to Gen2 5.0 GT/s	
	LPC	Yes	
Serial Bus	SMBus	Yes	
	I²C Bus	Support 100Kb/s & 400Kb/s devices. Default master mode, optional slave mode	
Ethernet	Controller	Intel® i210AT	
	Speed	10/100/1000 Mbps	
I/O	SATA	4 ports support SATA III 6.0Gb/s	
	USB3.0	4 ports	
	USB2.0	4 ports	
	SPI Bus	Yes (BIOS only)	
	GPIO	8-bit GPIO	
	Watchdog	65536 level, 0 ~ 65535 sec	
	COM Port	2 ports (2-wire)	
	Express Card	2 ports	
	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.)	D-1548 (32GB DDR4 2400) +12V @ 55.6W	
	Power Consumption (Idle)	D-1548 (32GB DDR4 2400) +12V @ 11W	
Environment	Temperature	Operating Standard: 0 ~ 60° C (32 ~ 140° F) 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	Freq.	CPU TDP	LLC	DDR4 SODIMM	Giga LAN	10GBase-KR	PEG x16	PCIe x1	USB 2.0	USB 3.0	SATA III	LPC	Power	Thermal solution	Operating Temp.
SOM-5991X8-U0A1E	Xeon D-1548	8	2.0	45W	12MB	ECC/non ECC	1	2	1	8	4	4	4	Yes	AT/ATX	Active	0 ~ 60° C
SOM-5991P2-U2A1E	Pentium D1508	2	2.2	25W	3MB	ECC/non ECC	1	2	1	8	4	4	4	Yes	AT/ATX	Active	0 ~ 60° C

Optional Accessories

Part No.	Description
1960048820N001	Semi-Cooler 125x95x33.5mm with 12V Fan
1960075879N001	Cooler 66x60x23mm with 12V Fan

Packing List

Part No.	Description	Quantity
-	SOM-5991 CPU module	1
1960077016N001	Heatspreader	1

Development Board

Part No.	Description
SOM-DB5900-00A1E	COMe Devel. Board w/10GB I/O pint-out