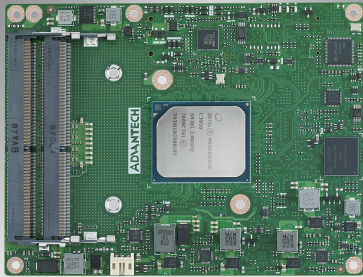


# SOM-5962

## Intel® Atom™ C3000 Processor COM Express R3.0 Type 7 Module

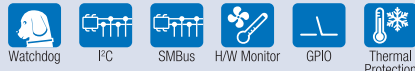
**NEW**



### Features

- Intel® Atom™ C3000 processor
- COM Express R3.0 basic module Type 7 pin out
- 2~16 core processors, with max. TDP 31W
- Dual-CH DDR4 2400 w/ECC, max. 128GB
- High speed Ethernet (4 10GBASE-KR interfaces, one GbE)
- Abundant expansion: (3 PCIe4, 1 GbE, 2 SATA 3.0, 4 USB 3.0)
- Supports iManager, embedded software APIs and Wise-PaaS/RMM

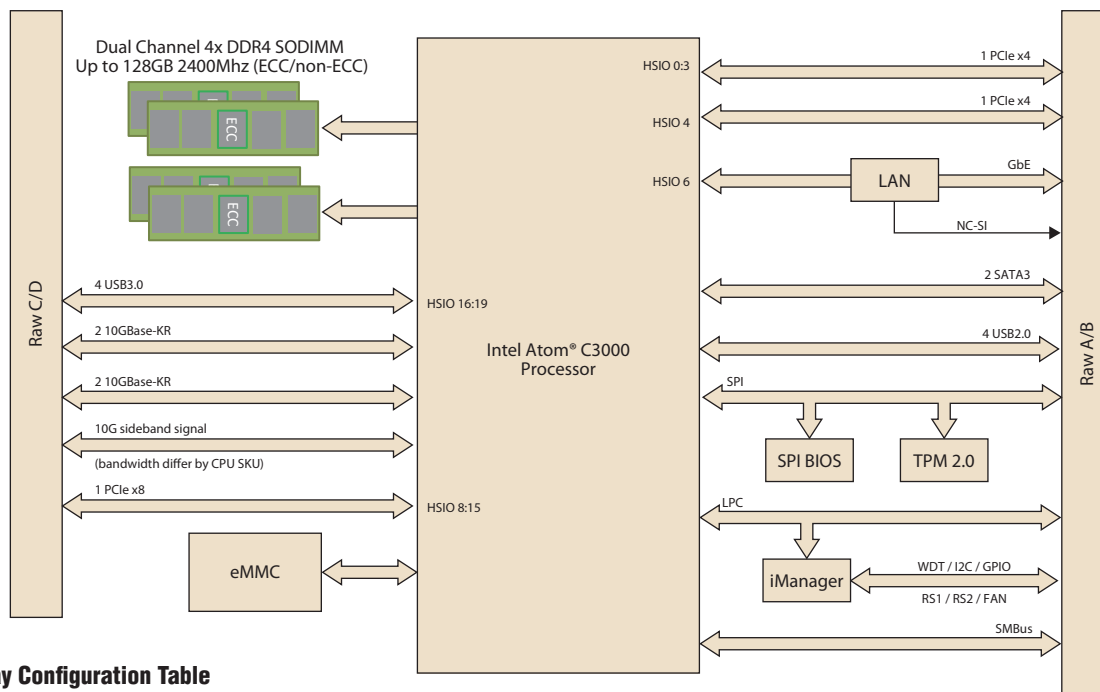
Software APIs:



### Specifications

Form Factor	Form Factor	COM Express Basic Module							
	Pin-out Type	COM Express R3.0 Type 7 compatible							
Processor System	CPU	C3958	C3758	C3558	C3338	C3808	C3708	C3508	C3308
	Base Frequency	2.0GHz	2.2GHz	2.2GHz	1.5GHz	2.0GHz	1.7GHz	1.6 GHz	1.6GHz
	Max Turbo Frequency	2.0GHz	2.2GHz	2.2GHz	2.2GHz	2.0GHz	1.7GHz	1.6 GHz	2.1GHz
	Cores	16	8	4	2	12	8	4	2
	LLC	16MB	16MB	8MB	4MB	12MB	16MB	8MB	4MB
	CPU TDP	31W	25W	16W	8.5W	25W	17W	11.5W	9.5W
Memory	Technology	DDR4 1600/1866/2133/2400MHz							
	Max. Frequency	2400 MHz	2400 MHz	2133 MHz	1866 MHz	2133 MHz	2133 MHz	1866 MHz	1866 MHz
	ECC Support	ECC and non-ECC							
	Max. Capacity	128GB							
	Socket	4pcs 260P SO-DIMM, Dual Channel (2pcs rugged SODIMM)							
Expansion	PCI Express	1 PCIe gen3 x8, bifurcatable to 2 x4, 4 x2. 1 PCIe gen3 x4, bifurcatable to 2 x2 (up to 2 PCIe x8 by option) Note: Depending on SoC HSI0 lanes							
	LPC	Yes 24MHz							
Serial Bus	SMBus	Yes							
	I²C Bus	Yes							
Ethernet	10GB Ethernet	Intel integrated 4 x 10G LAN controller; Interface: 10GBase-KR							
	Gigabit	Intel I210AT/I210IT controller; Speed: 10/100/1000 Mbps							
I/O	SATA3.0	2 x ports							
	USB3.0	4 x ports Note: Depending on SoC HSI0 lanes							
	USB2.0	4 x ports							
	SPI Bus	Yes							
	GPIO	8-bit							
	Watchdog	65536 level, 0 ~ 65535 sec							
	COM Port	2 Ports (2-Wire)							
	TPM	TPM2.0							
	Smart Fan	2 x ports: 1 port on COM module (notice: the input voltage of fan is aligned to Vin); 1 port on carrier board							
	Onboard storage	Up to 64GB eMMC							
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.)	32.6 Watt							
	Power Consumption (Idle)	11.8 Watt							
Environment	Operating Temperature	Standard: 0 ~ 60 °C (32 ~ 140 °F), Extend: -40 ~ 85 °C (-40 ~ 185 °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	125 mm x 95 mm (4.92" x 3.74")							

## Block Diagram



\*Display Configuration Table

HSIO Configuration Table	PClex4	PCle x1	PClex8	LAN	SATA 3.0	USB 3.0
HSIO 20 (Default)	1	1	1	1	2	4
HSIO 20 (Optional)	2/0	0	1/2	0	2	2
HSIO 12	1	2	0	1	2	2
HSIO 10	1	0	0	1	2	2

## Ordering Information

Part No.	CPU	Core	Base Freq.	Max. Boost Freq.	LLC	CPU TDP	Memory Channel	DDR4 SODIMM	eMMC	HSIO port	10GBase-KR		Thermal solution	Operating Temp.
											LAN0 (Gbps)	LAN1 (Gbps)		
SOM-5962C16-U0A1	C3958	16	2GHz	2GHz	16MB	31W	2	2400	64GB	20	10	2.5	Active	0 ~ 60 °C
SOM-5962C8-U2A1	C3758	8	2.2GHz	2.2GHz	16MB	25W	2	2400	64GB	20	2.5	1	Active	0 ~ 60 °C
SOM-5962C4-U2A1	C3558	4	2.2GHz	2.2GHz	8MB	16W	2	2133	64GB	12	1	2.5	Active	0 ~ 60 °C
SOM-5962C2-SSA1	C3338	2	1.5GHz	2.2GHz	4MB	8.5W	1	1866	64GB	10	2.5	1	Active	0 ~ 60 °C
SOM-5962C12X-U0A1	C3808	12	2GHz	2GHz	12MB	25W	2	2133	64GB	20	10	10	Active	-40 ~ 85 °C
SOM-5962C8X-S7A1	C3708	8	1.7GHz	1.7GHz	16MB	17W	2	2133	64GB	20	2.5	2.5	Active	-40 ~ 85 °C
SOM-5962C4X-S6A1	C3508	4	1.6 GHz	1.6 GHz	8 MB	11.5 W	2	1866	64GB	8	2.5	2.5	Active	-40 ~ 85 °C
SOM-5962C2X-S6A1	C3308	2	1.6GHz	2.1GHz	4MB	9.5W	1	1866	N/A	6	1	1	Active	-40 ~ 85 °C

Note: Any other SKU or combination has project-based support. Please contact sales for details.  
 Note2: LAN0 and LAN1 each support 2 port

## Packing List

Part No.	Description	Quantity
-	SOM-5962 COM module	1
1970004431N001	Heatspreader	1

## Optional Accessories

Part No.	Description
196008918T001	Semi-Cooler 125 x 95 x 33.5 mm with 12V Fan
SQR-YD4I32G2K6SEME	Rugged SODIMM DDR4 2666, 32GB ECC, i-grade
SQR-SD4N8G2K6SNBCB	SODIMM DDR4 2666, 8GB non-ECC
AQD-SD4U16N26-SE	SODIMM DDR4 2666, 16GB non-ECC
SQR-SD4N32G2K6SNME	SODIMM DDR4 2666, 32GB non-ECC
AQD-SD4U8GE24-SE	SODIMM DDR4 2400, 8GB ECC
SQR-SD4N32G2K6SEME	SODIMM DDR4 2666, 32GB ECC

## Development Board

Part No.	Description
SOM-DB5920-01A1	COM Express Development Board for T7 Pin-out, support 10GBASE-T (4 port)
SOM-DB5920-F1A1	COM Express Development Board for T7 Pin-out, support SFP+ I/O (4 port)

## Embedded OS

OS License	Part No.	Description
Standard version for Server	968QS16S16	WinSvrEmb Std 2016 x64 ORY 16Core MUI
Standard version for Server	968QS16S5C	WinSvrEmb Std 2016 x64 ORY 16Core SCAL MUI