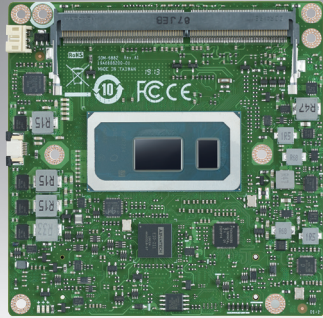


SOM-6882

Intel® 8th Gen Core Processors COM Express Compact Module R3.0 Type6

Preliminary



Windows Embedded

iManager WISE-PaaS/ DeviceOn



Features

- Intel® 8th Gen Core Processors Product Family
- COM Express R3.0 Compact Module Type 6 pin out
- Dual channel DDR4 Max 32GB memory
- High speed I/O: 4 USB3.1 (Gen2), 6 PCIe X1 (Gen3), 4 SATA (Gen3)
- On board storage eMMC up to 64GB, TPM2.0
- Supports iManager, Embedded Software APIs and Wise-PaaS/DeviceOn

Software APIs:



Watchdog



I2C



SMBus



H/W Monitor



GPIO

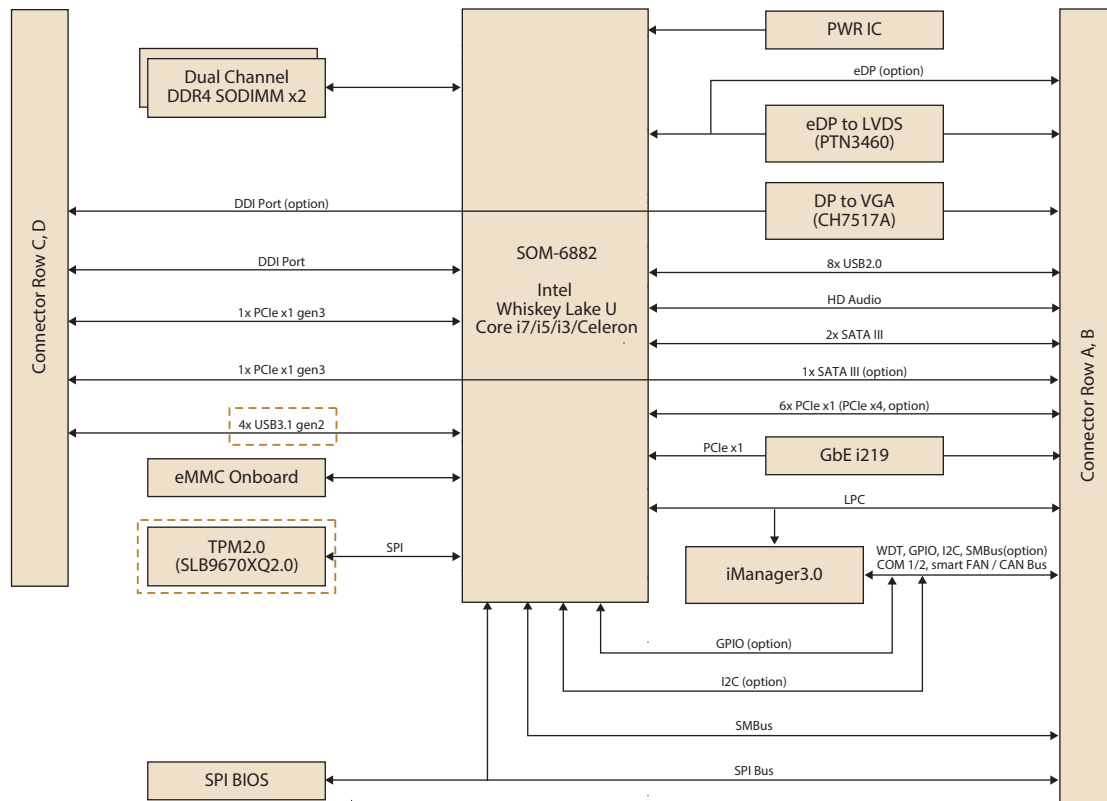


Brightness Control

Specifications

Form Factor	Form Factor	COM Express Compact Module				
	Pin-out Type	COM Express R3.0 Type 6 compatible				
Processor System	CPU	i7-8665UE	i5-8365UE	i3-8145UE	5405UE	4305UE
	Base Frequency	1.7 GHz	1.6 GHz	2.2 GHz	2.1 GHz	2.0 GHz
	Max Single Core Turbo Frequency	4.4 GHz	4.1 GHz	3.9 GHz	N/A	N/A
	Cores	4	4	2	2	2
	LLC	8MB	6MB	4MB	2MB	2MB
	CPU TDP	15W	15W	15W	15W	15W
	BIOS	AMI UEFI 256Mbit				
Memory	Technology	DDR4 up to 2400 MT/s				
	Speed	2400 MT/s	2400 MT/s	2400 MT/s	2400 MT/s	2400 MT/s
	ECC Support	Non-ECC				
	Max. Capacity	up to 32GB				
Graphics	Socket	2 260P SO-DIMM (Dual Channel)				
	Controller	Intel® UHD Graphics 620				
	Max. Frequency	1.15 GHz	1.05 GHz	1.0 GHz	TBD	1.0 GHz
	Graphic Memory	Shared Memory				
Display	3D/HW Acceleration	HW Encode: H.264/AVC, VP8, VP9, H.265/HEVC 8 bit, H.265/HEVC 10 Bit, MPEG2, MJPEG HW Decode: H.264/AVC, VP8, VP9, VP9 10 Bit, H.265/HEVC 8 bit, H.265/HEVC 10 Bit, MPEG2, MJPEG, VC-1				
	VGA	1920 x 1200 @ 60Hz				
	LCD	LVDS dual channel: 1920 x 1200 @ 60Hz (option support eDP 4096 x 2304 @ 60Hz, 24bpp)				
	DDI	2 DDI ports support configurable HDMI/DVI/DisplayPort HDMI: 4096 x 2160 @ 24Hz, DVI: 1920 x 1200 @ 60Hz, DP: 4096 x 2304 @ 60Hz				
Expansion	Multiple Display	Triple displays with each display combinations				
	PCI Express x16 (Gen3)	Not available				
	PCI Express x1 (Gen3)	8 PCIe x1				
Serial Bus	LPC	Yes. Clock Freq.: 24MHz				
	SMBus	Yes				
Ethernet	I2C Bus	Yes				
	Gigabit	Intel I219LM controller ; Speed: 10/100/1000 Mbps				
I/O	SATA3.0	Up to 3 Ports (6Gbps), 1 port is optional with PCIe x1				
	USB3.1 (Gen2)	4 Ports (10 Gbps)				
	USB2.0	4 Ports (480 Mbps)				
	SPI Bus	Yes. For BIOS EEPROM				
	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 (Notice: the input voltage of fan is aligned to Vin); 1 port on carrier board					
Power	Type	ATX: Vin, VSB; AT: Vin				
	Supply Voltage	Vin: 8.5V ~ 20V; VSB: 4.75V ~ 5.25 V, RTC Battery: 2.0V ~ 3.3V				
	Power Consumption (Max.)	TBD				
	Power Consumption (Idle)	TBD				
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	95 x 95 mm (3.74" x 3.74")				

Block Diagram



Ordering Information

Part No.	CPU	Core	Freq. (Base/Turbo)	CPU TDP	LLC	DDR4 SODIMM	Giga LAN	PCIe x1	USB 2.0	USB 3.1	SATA 3.0	LPC	Power	Thermal solution	Operating Temp.
TBD	i7-8665UE	4	1.7 / 4.4	15W	8MB	non-ECC	1	8	4	4	2	Yes	AT/ATX	Active	0 ~ 60 °C
TBD	i5-8365UE	4	1/6 / 4.1	15W	6MB	non-ECC	1	8	4	4	2	Yes	AT/ATX	Active	0 ~ 60 °C
TBD	i3-8145UE	4	2.2 / 3.9	15W	4MB	non-ECC	1	8	4	4	2	Yes	AT/ATX	Active	0 ~ 60 °C
TBD	5405UE	2	2.1 / N/A	15W	2MB	non-ECC	1	8	4	4	2	Yes	AT/ATX	Active	0 ~ 60 °C
TBD	4305UE	2	2.0 / N/A	15W	2MB	non-ECC	1	8	4	4	2	Yes	AT/ATX	Active	0 ~ 60 °C
TBD	i7-8665UE	4	1.7 / 4.4	15W	8MB	non-ECC	1	8	4	4	2	Yes	AT/ATX	Active	-40 ~ 85 °C

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

Optional Accessories

Part No.	Description
1960048819N001	Semi-Cooler 95 x 95 x 33.5 mm with 12V Fan

Packing List

Part No.	Description	Quantity
-	SOM-6882 COM module	1
TBD	Heatspreader	1

Development Board

Part No.	Description
SOM-DB5830-00A1	COMe R3.0 Devel. Board Type6 Rev. A1

Embedded OS

OS	Part No.	Description
Win10	TBD	TBD