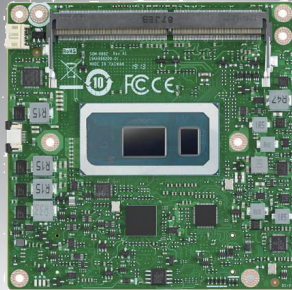


SOM-6882

8th Generation Intel® Core™ Processor U-Series Celeron 4000 Series COM Express Compact Module Type 6

NEW



Features

- 8th Generation Intel® Core™ Processor U-Series
- COM Express R3.0 Compact module Type 6 Pinout
- Dual channel DDR4 SODIMM, max. 64GB
- High speed I/Os: 4 USB3.2 gen2, 8 PCIe gen3 lanes and 2 SATAIII
- On board storage eMMC 32GB, TPM2.0
- Supports iManager, embedded software APIs and WISE-PaaS/DeviceOn

Software APIs:

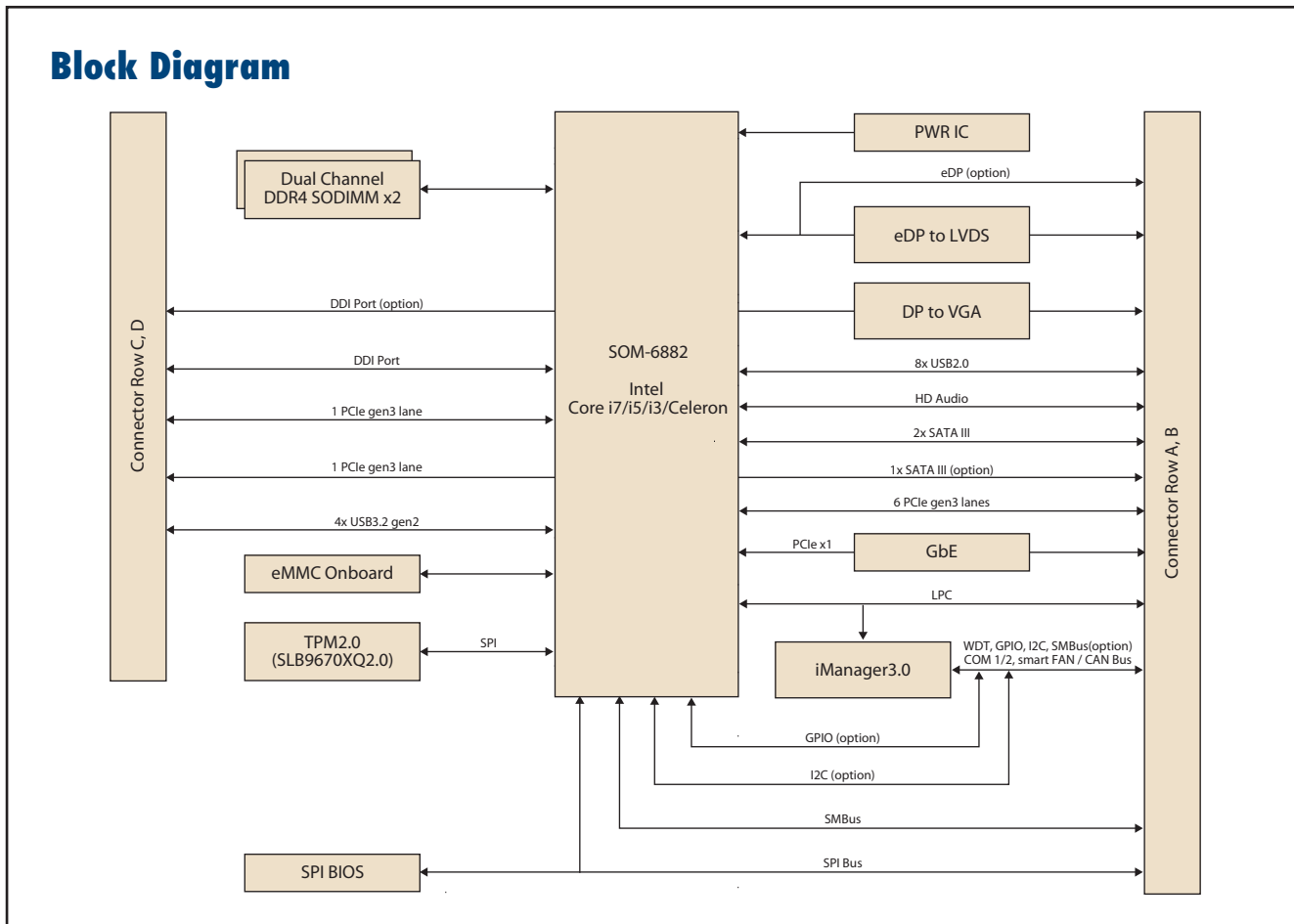


Windows Embedded iManager WISE-PaaS/ DeviceOn CE FC

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	4305UE
	Base Frequency	1.7 GHz	1.6 GHz	2.2 GHz	2.0 GHz
	Max Single Core Turbo Frequency	4.4 GHz	4.1 GHz	3.9 GHz	N/A
	Cores	4	4	2	2
	LLC	8MB	6MB	4MB	2MB
	CPU TDP	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	2133 MT/s
	ECC Support	Non-ECC			
	Max. Capacity	up to 64GB			
Graphics	Socket	2 260P SO-DIMM (Dual Channel)			
	Controller	Intel® UHD Graphics 620	Intel® UHD Graphics 620	Intel® UHD Graphics 620	Intel® UHD Graphics 610
	Max. Frequency	1.15 GHz	1.05 GHz	1.0 GHz	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	Up to 2 DDI ports support configurable HDMI/Display Port 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)	Default: 4 PCIe x1 + 1 PCIe x4 (Support 8 lanes and up to 6 devices by optional)			
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			
	USB3.2 (Gen2)	4 Ports (10 Gbps)			
	USB2.0	8 Ports (480 Mbps)			
	Onboard Storage	32GB eMMC			
	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.)	59.721 W			
	Power Consumption (Idle)	4.204 W			
Environment	Operating Temperature	Standard: 0 ~ 60 °C (32 ~ 140 °F) Extended: -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

P/N	CPU	Cores	Freq. (Base/Turbo)	CPU TDP	Onboard eMMC	LLC	LVDS/eDP	Giga LAN	PCIe x1	USB 2.0	USB 3.2 (Gen2)	SATA 3.0	LPC	Power	Thermal Solution	Operating Temperature
SOM-6882C7-S7A1	CORE I7-8665UE	4	1.7 / 4.4	15W	32GB	8MB	LVDS	1	8	4	4	2	YES	AT/ATX	Passive	0 ~ 60 °C
SOM-6882C7A-S7A1	CORE I7-8665UE	4	1.7 / 4.4	15W	32GB	8MB	eDP	1	8	4	4	2	YES	AT/ATX	Passive	0 ~ 60 °C
SOM-6882C5-S6A1	CORE I5-8365UE	4	1.6 / 4.1	15W	32GB	6MB	LVDS	1	8	4	4	2	YES	AT/ATX	Passive	0 ~ 60 °C
SOM-6882C3-U2A1	CORE I3-8145UE	2	2.2 / 3.9	15W	32GB	4MB	LVDS	1	8	4	4	2	YES	AT/ATX	Passive	0 ~ 60 °C
SOM-6882C3A-U2A1	CORE I3-8145UE	2	2.2 / 3.9	15W	32GB	4MB	eDP	1	8	4	4	2	YES	AT/ATX	Passive	0 ~ 60 °C
SOM-6882CR-U0A1	CELERON 4305UE	2	2.0 / N/A	15W	32GB	2MB	LVDS	1	8	4	4	2	YES	AT/ATX	Passive	0 ~ 60 °C
SOM-6882C7X-S7A1	CORE I7-8665UE	4	1.7 / 4.4	15W	32GB	8MB	LVDS	1	8	4	4	2	YES	AT/ATX	Passive	-40 ~ 85 °C
SOM-6882C5X-S6A1	CORE I5-8365UE	4	1.6 / 4.1	15W	32GB	6MB	LVDS	1	8	4	4	2	YES	AT/ATX	Passive	-40 ~ 85 °C
SOM-6882C3X-U2A1	CORE I3-8145UE	2	2.2 / 3.9	15W	32GB	4MB	LVDS	1	8	4	4	2	YES	AT/ATX	Passive	-40 ~ 85 °C
SOM-6882CRX-U0A1	CELERON 4305UE	2	2.0 / N/A	15W	32GB	2MB	LVDS	1	8	4	4	2	YES	AT/ATX	Passive	-40 ~ 85 °C

Any other SKUs or combination has project-based support. Please contact sales team for details.

Development Board

Part No.	Description
SOM-DB5830-00A1	COMe R3.0 Devel. Board Type6 Rev. A1
SOM-DB5830A-00A1	COMe R3.0 Devel. Board Type6 Rev.A1 w/eDP

Optional Accessories

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

Packing List

Part No.	Description	Quantity
1960093586N000	Heatspreader	1

Embedded OS

OS	P/N	Description
Win10	20706WX9ES0066	Win10 IoT 2019 Enterprise LTSC Entry