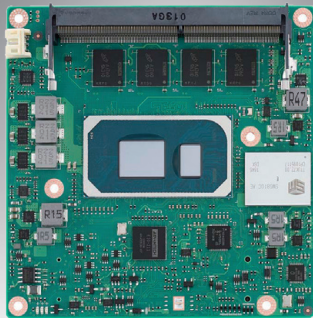


SOM-6883

11th Gen. Intel® Core™ Processor U-Series (Code Name: Tiger Lake-UP3) COM Express® Compact Type6

NEW



Features

- 11th Gen. Intel® Core™ Processor U-Series
- COM Express R3.0 Compact Module Type 6 Pinout
- Dual channel with one memory down and one SO-DIMM
- High speed I/O: 1 PCIe x4 Gen4, 5 PCIe x1 Gen3, 4 USB3.2 Gen2
- Onboard NVMe x4 SSD up to 64GB, TPM2.0
- Supports SUSI, DeviceOn and Edge AI Suite

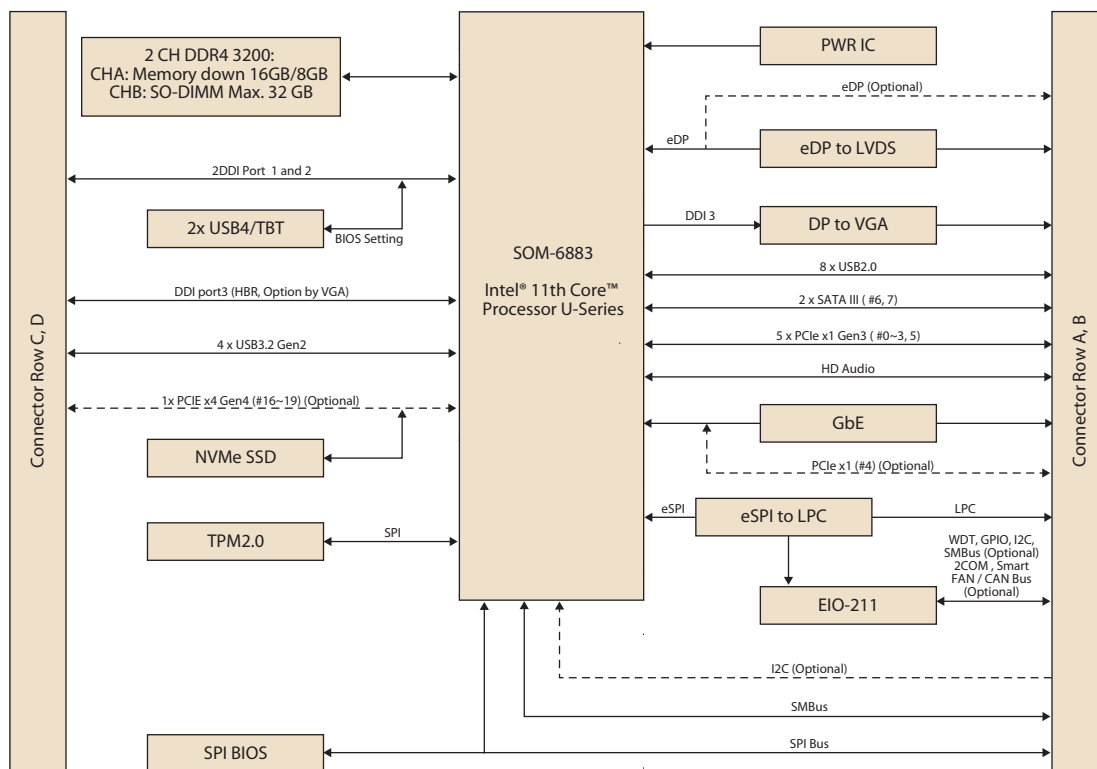


Windows Embedded **iManager WISE-DeviceOn**

Specifications

Form Factor	Form Factor	COM Express Compact Module						
	Pin-out Type	COM Express R3.0 Type 6 compatible						
Processor System	CPU	Core™ i7-1185G7E	Core™ i5-1145G7E	Core™ i3-1115G4E	Celeron® 6305E	Core™ i7-1185GRE	Core™ i5-1145GRE	Core™ i3-1115GRE
	Base Frequency	2.8GHz	2.6GHz	3.0GHz	1.8GHz	2.8GHz	2.6GHz	3.0GHz
	Turbo Frequency	4.4GHz	4.1GHz	3.9GHz	N/A	4.4GHz	4.1GHz	3.9GHz
	Cores	4	4	2	2	4	4	2
	Cache	12 MB	8 MB	6 MB	4 MB	12 MB	8 MB	6 MB
	CPU TDP	28W	28W	28W	15W	28W	28W	28W
	Configurable TDP-up/ Frequency	15W/1.8GHz	15W/1.5GHz	15W/2.2GHz	N/A	15W/1.8GHz	15W/1.5GHz	15W/2.2GHz
	Configurable TDP-down/Frequency	12W/1.2GHz	12W/1.1GHz	12W/1.7GHz	N/A	12W/1.2GHz	12W/1.1GHz	12W/1.7GHz
Memory	Technology	DDR4, Dual-channel memory, up to 3200 MT/s						
	Onboard Memory	16GB/8GB						
	SODIMM Memory	up to 32 GB by one SODIMM Socket						
Graphics	Controller	Intel® Iris® Xe Graphics/Intel® UHD Graphics						
	Graphics Max Dynamic Frequency	1.35GHz	1.30GHz	1.25GHz	1.25GHz	1.35GHz	1.30GHz	1.25GHz
	2D&3D/HW Acceleration	HW Encode: Supports AVC, MPEG-2, HEVC, and VP9. HW Decode: Supports Direct3D™ 9 Video API (DXVA2), Direct3D12 Video API, Intel Media SDK, MFT (Media Foundation Transform) filters, Intel VA API						
Display	VGA	1920 x 1200@60Hz						
	LCD	LVDS dual channel: 1920 x 1200@60Hz (option support eDP 4096 x 2304@60Hz, 24bpp)						
	DDI	3 DDI ports support configurable HDMI/DisplayPort -HDMI 2.0b: 4Kx2K 48-60Hz 24bpp -DisplayPort 1.4: 4096x2304 60Hz 36bpp						
	Multiple Display	Four displays with each display combinations						
Expansion	PCI Express x1 (Gen3)	5 PCIe x1 (Up to 6 by option)						
Serial Bus	SMBus	Yes						
	I2C Bus	Yes						
Ethernet	Gigabit	Intel I225 IT controller ; Speed: 10M / 100M / 1000M / 2.5G speeds						
I/O	SATA3.0	2 Ports (6Gbps)						
	USB3.2 (Gen2)	4 Ports (10 Gbps)						
	USB2.0	8 Ports (480 Mbps)						
	LPC	Yes						
	SPI Bus	Yes						
	GPIO	8-bit GPIO						
	Watchdog	65536 level, 0 ~ 65535 sec						
	CAN Bus	Support one CAN Bus option from COM Port						
	COM Port	2 Ports (2-Wire)						
	TPM	TPM2.0						
Power	Smart Fan	2 Ports: 1 port on COM module (Notice: the input voltage of fan is aligned to Vin); 1 port on carrier board						
	Type	ATX: Vin, VSB; AT: Vin						
Environment	Supply Voltage	Vin: 8.5V ~ 20V; VSB: 4.75V ~ 5.25 V, RTC Battery: 2.0V ~ 3.3V						
	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

P/N	CPU	Cores	CPU TDP	Onboard Memory	Onboard NVMe	PCIe x4 GEN4	eDP/LVDS	USB4	Power	Thermal Solution	Operating Temperature
SOM-6883C7A-S8A1	Core™ i7-1185G7E	4	15W	16GB	32GB	N/A	LVDS	N/A	AT/ATX	Active	0 ~ 60 °C
SOM-6883C7-S8A1	Core™ i7-1185G7E	4	15W	16GB	N/A	Yes	LVDS	N/A	AT/ATX	Active	0 ~ 60 °C
SOM-6883C5-S5A1	Core™ i5-1145G7E	4	15W	8GB	N/A	Yes	LVDS	N/A	AT/ATX	Active	0 ~ 60 °C
SOM-6883C5A-S5A1	Core™ i5-1145G7E	4	15W	8GB	N/A	Yes	eDP	N/A	AT/ATX	Active	0 ~ 60 °C
SOM-6883C3-U2A1	Core™ i3-1115G4E	2	15W	N/A	N/A	Yes	LVDS	N/A	AT/ATX	Active	0 ~ 60 °C
SOM-6883CR-S8A1	Celeron® 6305E	2	15W	N/A	N/A	Yes	LVDS	N/A	AT/ATX	Active	0 ~ 60 °C
SOM-6883R7X-S8A1	Core™ i7-1185GRE	4	15W	16GB	32GB	N/A	LVDS	N/A	AT/ATX	Active	-40 ~ 85 °C
SOM-6883R5X-S5A1	Core™ i5-1145GRE	4	15W	8GB	N/A	Yes	LVDS	N/A	AT/ATX	Active	-40 ~ 85 °C
SOM-6883R3X-U2A1	Core™ i3-1115GRE	2	15W	NA	N/A	Yes	LVDS	N/A	AT/ATX	Active	-40 ~ 85 °C
SOM-6883C3B-U2A1	Core™ i3-1115G4E	2	15W	N/A	N/A	N/A	LVDS	Option*	AT/ATX	Active	0 ~ 60 °C

*SOM-MZ10 is not included in SOM-6883C3B-U2A1, need to be purchased from optional accessories
 *Any other sku or combination is project based support. Please contact sales for details.

Development Board

Part No.	Description
SOM-DB5830-00A2	COMe Devel. Board COMe R3.0 Type6 pin-out (LVDS) 0 ~ 60 °C
SOM-DB5830A-00A2	COMe Devel. Board COMe R3.0 Type6 pin-out (eDP) 0 ~ 60 °C
SOM-DB5830X-00A2	COMe Devel. Board COMe R3.0 Type6 pin-out (LVDS) -40 ~ 85 °C

Optional Accessories

Part No.	Description
1970004870T001	Semi-Cooler 95 x 95 x 33 mm with 12V Fan
1970004871T001	QFCS 95 x 95 x 26 mm
SOM-MZ10-00A1	SOM-MZ10 USB4 card

Packing List

Part No.	Description	Quantity
1970004766T001	Heatspreader of SOM-6883	1

Embedded OS

OS	Part No.	Description
Win10	20706WX9HM0018	img W10 19HL SOM-6883 64b 1809 ENU (Audio_NV)
Win10	20706WX9VM0015	img W10 19VL SOM-6883 64b 1809 ENU (Audio_NV)
Win10	20706WX9EM0022	img W10 19EL SOM-6883 64b 1809 ENU (Audio_NV)