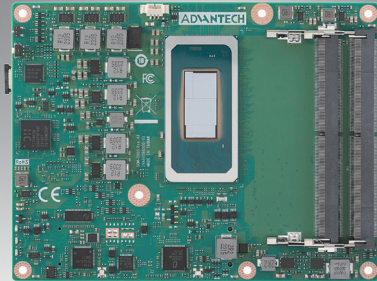


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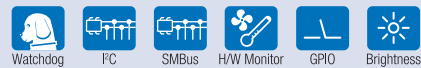
Intel® 14th Gen Core Processors (Code Name: Meteor Lake U/H) COM Express® Basic Type 6 Module



Features

- COM Express® R3.1 Basic Module Type 6 Pinout
- Intel® 14th Gen Core Processors , Up to 14C/20T
- Intel Xe LPG graphic up to 128EU, 4 independent 4K display
- Dual-CH DDR5 5600MT/s up to 96GB SOMDIMM
- Multiple I/O expansion: 2.5GbE, PCIe gen4, USB4 & USB3.2 Gen2, SATA3.0
- Support Dual BIOS failsafe
- Supports iManager, Embedded Software APIs and Wise-DeviceOn

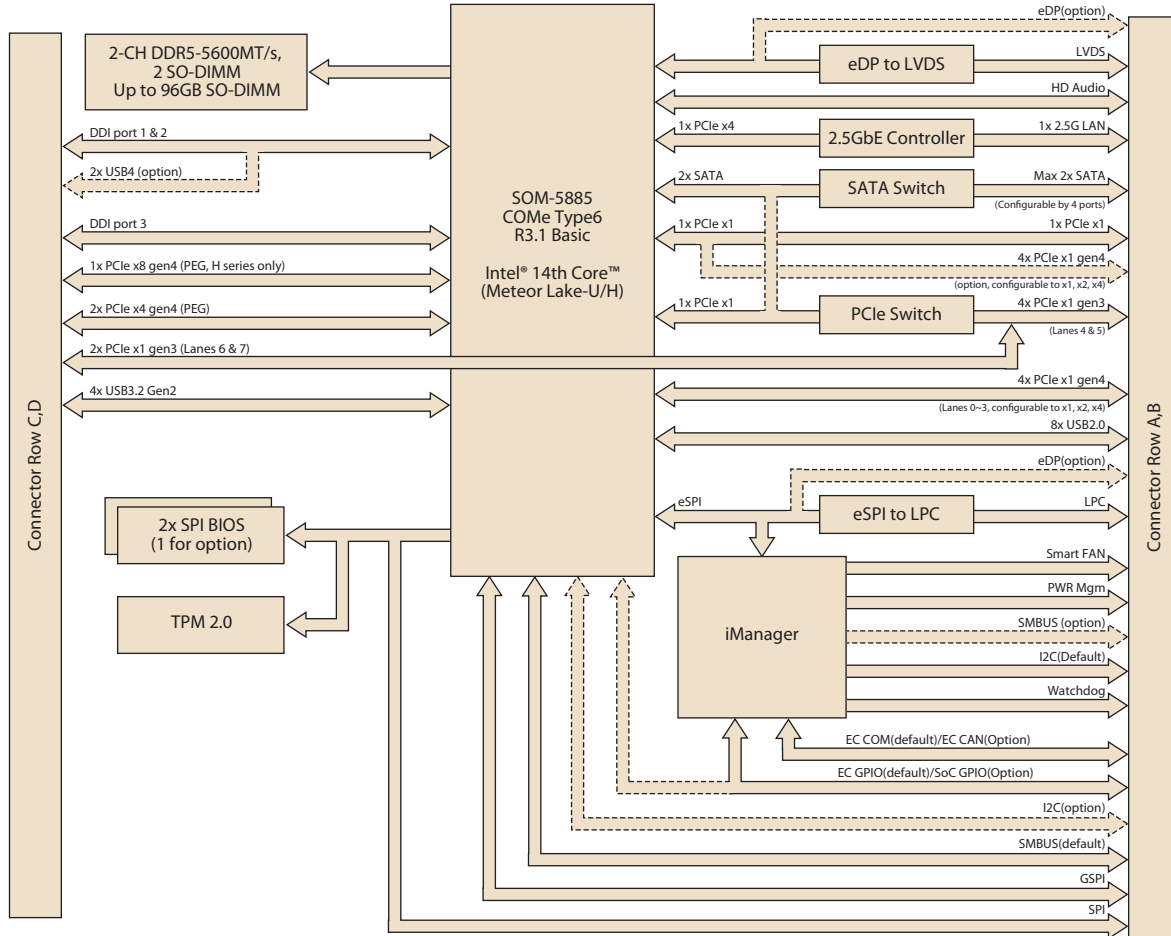
Software APIs:



Specifications

Form Factor	Form Factor	COM Express Basic							
	Pin-out Type	COM Express R3.1 Type 6 compatible							
Processor System	CPU	Core Ultra 7	Core Ultra 7	Core Ultra 7	Core Ultra 7	Core Ultra 5	Core Ultra 5	Core Ultra 5	Core Ultra 5
	Base Frequency	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
	Max Single Core Turbo Frequency	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
	Cores	14C (6P+8E)	14C (6P+8E)	10C (2P+8E)	10C (2P+8E)	12C (4P+8E)	12C (4P+8E)	10C (2P+8E)	10C (2P+8E)
	LLC	24M	24M	12M	12M	18M	18M	12M	12M
	Default TDP	28W	28W	15W	15W	28W	28W	15W	15W
	cTDP	20W-45W	20W-45W	TBD	TBD	20W-45W	20W-45W	TBD	TBD
	vPRO	Yes	NA	Yes	NA	Yes	NA	Yes	NA
	BIOS	AMI UEFI 256Mbit							
	Memory	Technology	DDR5						
Speed		5600 MT/s							
Max. Capacity		Up to 96GB							
Channel/Socket		Dual Channel / 2 Sockets SODIMM, 1DPC							
ECC Support		IB ECC							
Graphics	Controller	Intel® Xe LPG							
	EU	Up to 128EU							
	Base. Frequency	TBD							
	Max. Frequency	TBD							
Display	LCD (LVDS/eDP)	1port LVDS Dual channel: 1920 x 1200 @60Hz/eDP 4096 x 2304 @60Hz							
	DDI (HDMI/DisplayPort)	3 DDI Port Support Configurable HDMI/DisplayPort -HDMI 2.1: 4096 x 2304 @ 60Hz -DisplayPort 2.1 HBR3: 4096 x 2304 @ 60Hz							
	Multiple Display	Quad Simultaneous Independent Display							
Expansion	PEG	PEG (H series): PCIe Gen4, 16 lanes, Bitfurcate to 1 x8, 2 x4 PEG (U series): PCIe Gen4, 8 lanes, Bitfurcate to 2 x4							
	PCI Express	PCIe: PCIe gen4, Up to 8 lanes & Up to 8 end devices -4 PCIe Gen4 lanes, Bitfurcate to x1, x2, x4 -4 PCIe Gen4 lanes, Support PCIe x1 only (Option with 2 SATA, bitfurcate to x1, x2, x4)							
Serial Bus	SMBus	Yes							
	I2C Bus	Yes							
Ethernet	Gigabit	Intel I226 controller; Speed: 10M / 100M / 1000M / 2.5G speeds							
I/O	SATA3.0	Up to 2 Ports (6Gbps), Configurable by 4 lanes [0.2]/[1.3]							
	USB4	Up to 2 ports, Co-lay with DDI, Support by SOM-MZ20							
	USB3.2 (Gen2)	4 Ports (10 Gbps)							
	USB2.0	8 Ports (480 Mbps)							
	SPI Bus	Yes. For BIOS EEPROM, Support Dual BIOS failsafe							
	GPIO	8-bit, Default from iManager, Option from CPU							
	LPC	Yes							
	Audio Interface	HD Audio							
	Watchdog	65536 level, 0 ~ 65535 sec							
	COM Port	2 Ports (2-Wire)							
	TPM	TPM2.0							
	CAN Bus	Support one CAN Bus option from COM Port							
Power	Type	ATX: Vin, VSB; AT: Vin							
	Supply Voltage	Vin: 8.5V ~ 20V; VSB: 4.75V ~ 5.25V; RTC Battery: 2.0V ~ 3.3V							
	Power Consumption (Max.)	TBD							
	Power Consumption (Idle)	TBD							
Environment	Operating Temperature	Standard: 0 ~ 60 °C (32 ~ 140 °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



Ordering Information

Part No.	CPU	Core	Graphics	Base Freq.	Max. Boost Freq.	GFX HFM	GFX Burst Mode	CPU TDP	EMMC	IBECC	Thermal solution	Operating Temp.
TBD												

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

Development Board

Part No.	Description
SOM-DB5830-00A3	COMe Devel. Board COMe R3.1 Type6 pin-out (LVDS) 0 ~ 60 °C
SOM-DB5830A-00A3	COMe Devel. Board COMe R3.1 Type6 pin-out (eDP) 0 ~ 60 °C

Optional Accessories

Part No.	Description
TBD	Semi-Heatsink
TBD	QFCS Cooler

Embedded OS

OS	Part No.	Description
Win10	TBD	TBD

Packing List

Part No.	Description	Quantity
-	SOM-5885 COM module	1
TBD	Heatspreader	1