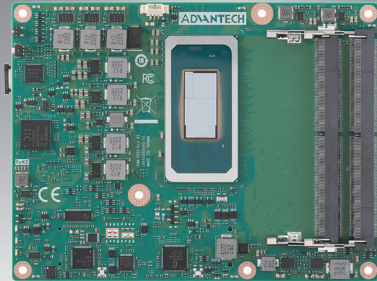


# SOM-5885

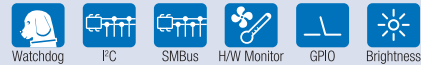
## Intel® 14th Gen Core Processors (Code Name: Meteor Lake U/H) COM Express® Basic Type 6 Module



### 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

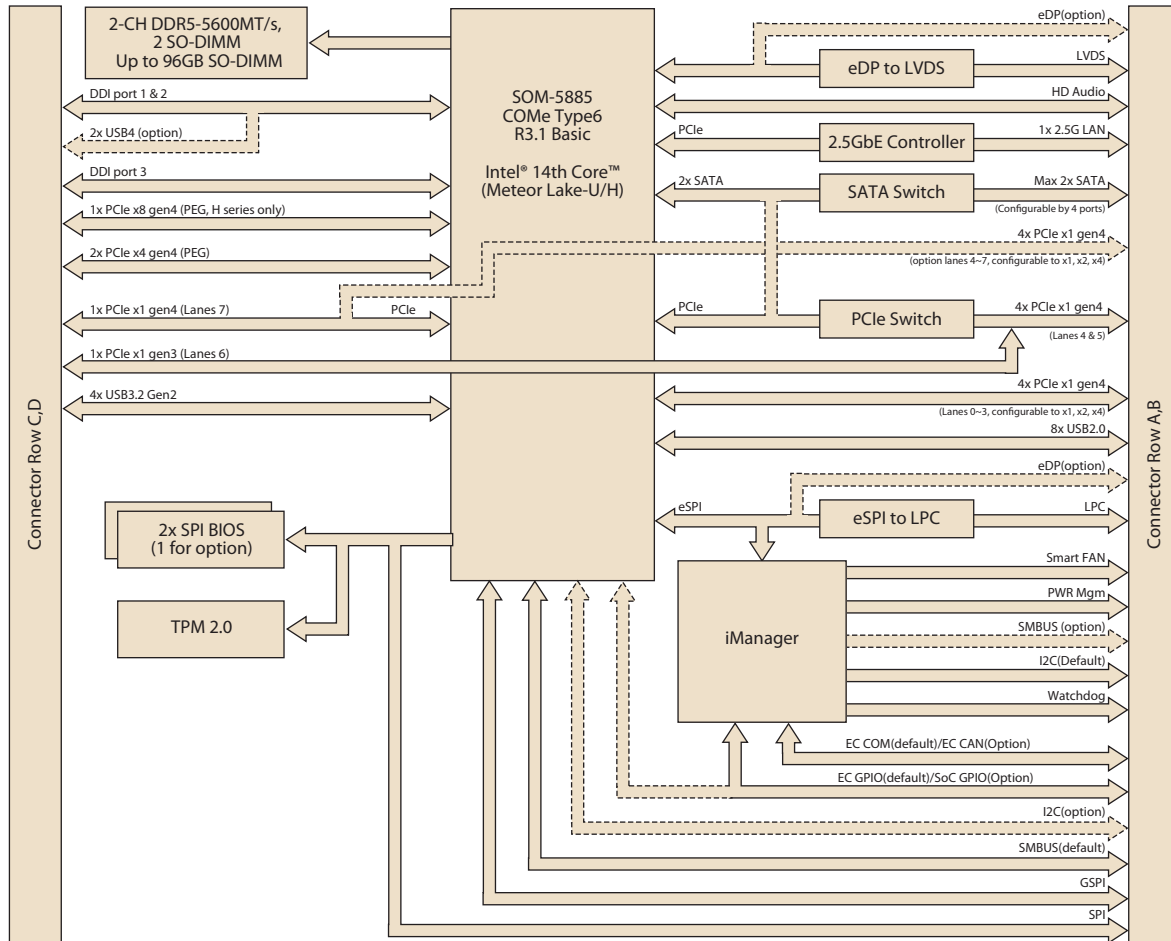
#### Software APIs:



### 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 5		Core Ultra 5		Core Ultra 5
	Base Frequency	1.4GHz/0.9GHz	1.4GHz/0.9GHz	1.7GHz/1.2GHz	1.7GHz/1.2GHz	1.7GHz/1.2GHz	1.2GHz/0.7GHz	1.6GHz/1.1GHz	1.3GHz/0.8GHz	1.3GHz/0.8GHz
	Max Turbo Frequency	5GHz/3.8GHz	4.8GHz/3.8GHz	4.9GHz/3.8GHz	4.8GHz/3.8GHz	4.6GHz/3.6GHz	4.5GHz/3.6GHz	4.4GHz/3.6GHz	4.3GHz/3.6GHz	4.3GHz/3.6GHz
	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)	10C (2P+8E)
	LLC	24M	24M	12M	12M	18M	18M	12M	12M	12M
	Default TDP	28W	28W	15W	15W	28W	28W	15W	15W	15W
	cTDP	20W-45W	20W-45W	12-28W	12-28W	20W-45W	20W-45W	12-28W	12-28W	12-28W
	vPRO	Yes	NA	Yes	NA	Yes	NA	Yes	NA	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	IBECC								
Graphics	Controller	Intel® Xe LPG								
	Graphics EU	128EU	128EU	64EU	64EU	128EU	112EU	64EU	64EU	64EU
	Max. Frequency	2.3GHz	2.25GHz	2.0GHz	1.95GHz	2.2GHz	2.2GHz	1.9GHz	1.85GHz	1.85GHz
Display	3D/HW Acceleration	HW Encode: Supports AVC/H264, JPEG, HEVC/H265, VP9 and AV1. HW Decode: Supports MPEG2, AVC/H264, JPEG/MJPEG, HEVC/H265, VP9 and AV1								
	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 -Default 4 PCIe Gen4 & Gen3 lanes which support x1 only (Option with 2 SATA & PCIe Switch, Support PCIe x4 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								
Power	CAN Bus	Support one CAN Bus option from COM Port								
	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								
Environment	Power Consumption (Idle)	TBD								
	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								
Mechanical	Vibration Resistance	3.5 Grms								
	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