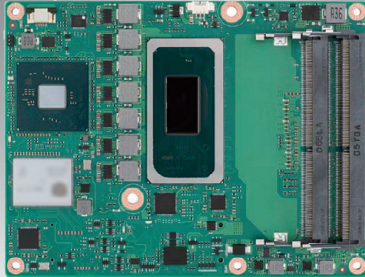


# SOM-5883

## Intel® 11th Gen Core Processors (Code Name: Tiger Lake-H) COM Express® Basic Type 6 Module

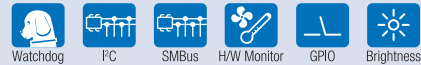
NEW



### Features

- Intel® 11th Gen Core Processors, up to 8Core/16T, L3 Cache 24M
- Intel Iris Xe(Gen 12) graphics, 4 independent 4K display
- Dual channel DDR4 Max 128GB SODIMM, support ECC
- Super speed I/O: PCIe4 x16 (16GT/s), USB3.2 gen3 (10Gb), 2.5GbE, SATA3 (6Gb)
- TPM2.0 security protection, onboard NVMe SSD fast & anti-vibration
- Supports iManager, Edge-AI Suite, DeviceOn

Software APIs:

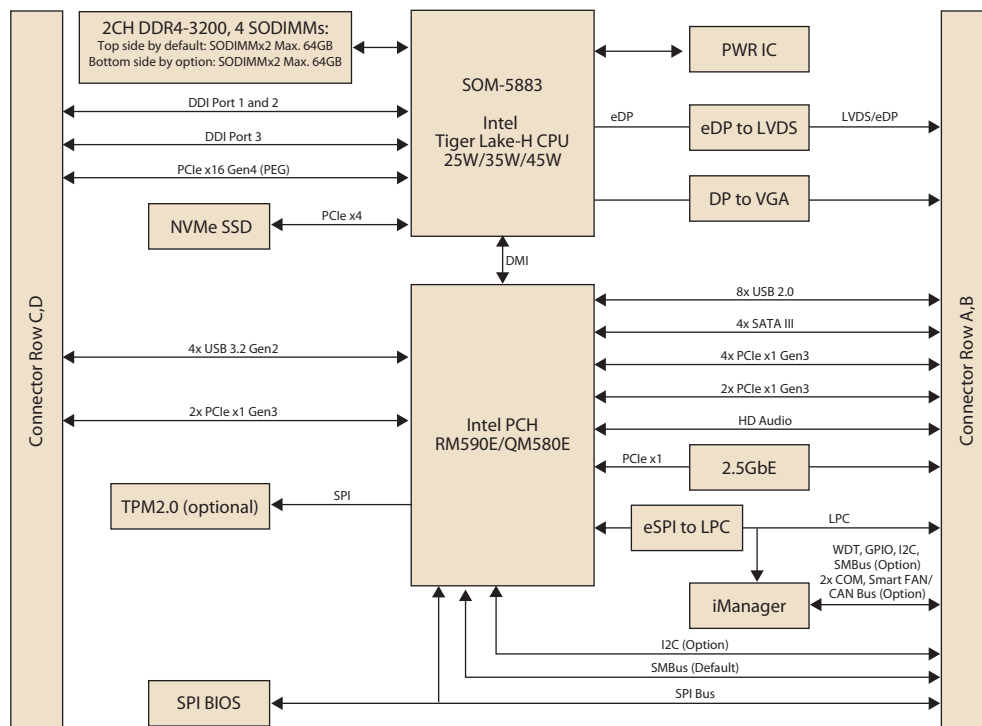


Windows Embedded **iManager WISE-DeviceOn**

### Specifications

|                          |                                 |   |                        |            |         |   |            |            |            |
|--------------------------|---------------------------------|---|------------------------|------------|---------|---|------------|------------|------------|
| Form Factor              | Form Factor                     | COM Express Compact Module  |                        |            |         |   |            |            |            |
|                          | Pin-out Type                    | COM Express R3.0 Type 6 compatible  |                        |            |         |   |            |            |            |
| Processor System         | CPU                             | i7-11850HE  | i5-11500HE             | i3-11100HE | 6600HE  | W-11865MRE  | W-11555MRE | W-11155MRE | W-11865MLE |
|                          | Base Frequency                  | 2.6 GHz   | 2.6 GHz                | 2.4 GHz    | 2.6 GHz | 2.6 GHz   | 2.6 GHz    | 2.4 GHz    | 1.5 GHz    |
|                          | Max Single Core Turbo Frequency | 4.7 GHz   | 4.5 GHz                | 4.4 GHz    | -       | 4.7 GHz   | 4.5 GHz    | 4.4 GHz    | 4.5 GHz    |
|                          | Cores                           | 8   | 6                      | 4          | 2       | 8   | 6          | 4          | 8          |
|                          | LLC                             | 24 MB   | 12 MB                  | 8 MB       | 8 MB    | 24 MB   | 12 MB      | 8 MB       | 24 MB      |
|                          | CPU TDP                         | 45W/35W   | 45W/35W                | 45W/35W    | 35W     | 45W/35W   | 45W/35W    | 45W/35W    | 25W        |
| Chipset                  | QM580E                          | QM580E  | QM580E                 | QM580E     | RM590E  | RM590E  | RM590E     | RM590E     |            |
| BIOS                     | AMI UEFI 256Mbit                |   |                        |            |         |   |            |            |            |
| Memory                   | Technology                      | DDR4  |                        |            |         |   |            |            |            |
|                          | Speed                           | 3200  | 3200                   | 3200       | 3200    | 3200  | 3200       | 3200       | 3200       |
|                          | ECC Support                     | Non-ECC or ECC support by specific SKU  |                        |            |         |   |            |            |            |
|                          | Max. Capacity                   | Max. 128GB  |                        |            |         |   |            |            |            |
|                          | Socket                          | Maximum 4pcs 260P S0-DIMM (Dual Channel), 2pcs top side by default & 2pcs bottom side by option   |                        |            |         |   |            |            |            |
| Graphics                 | Controller                      | Intel Iris Xe(Gen 12) graphics  |                        |            |         |   |            |            |            |
|                          | Max. Frequency                  | 1.35 GHz  | 1.35 GHz               | 1.25 GHz   | 1.1 GHz | 1.35 GHz  | 1.35 GHz   | 1.25 GHz   | 1.35 GHz   |
|                          | Graphic Memory                  | Shared memory   |                        |            |         |   |            |            |            |
|                          | 3D/HW Acceleration              | JPEG, H264 (8 bits) and HEVC/H265 (10 bits)   |                        |            |         |   |            |            |            |
| Display                  | VGA                             | 1920 x 1200@60Hz  |                        |            |         |   |            |            |            |
|                          | LCD                             | LVDS dual channel: 1920 x 1200@60Hz (optional eDP 4096 x 2304@60Hz, 24bpp)  |                        |            |         |   |            |            |            |
|                          | DDI                             | *3 DDI ports support configurable HDMI/DVI/DisplayPort<br>HDMI: 4096 x 2160@24Hz, DVI: 1920 x 1200@60Hz, DP: 4096 x 2304@60Hz*                  |                        |            |         |   |            |            |            |
|                          | Multiple Display                | Quad Simultaneous Independent Display   |                        |            |         |   |            |            |            |
| Expansion                | PCI Express x16 (Gen4)          | 1 PCIe x16 configurable to 1 x16, 2 x8, 1 x8 + 2 x4   |                        |            |         |   |            |            |            |
|                          | PCI Express x1 (Gen3)           | 8 PCIe x1, configurable to x4 or x2   |                        |            |         |   |            |            |            |
|                          | Audio Interface                 | Intel HD Audio  |                        |            |         |   |            |            |            |
|                          | LPC                             | Yes   |                        |            |         |   |            |            |            |
| Serial Bus               | SMBus                           | Yes   |                        |            |         |   |            |            |            |
|                          | I2C Bus                         | Yes   |                        |            |         |   |            |            |            |
| Ethernet                 | Gigabit                         | Intel I225LM/IT (up to 2.5GbE)  |                        |            |         |   |            |            |            |
| I/O                      | SATA3.0                         | 4 Ports (6 Gbps)  |                        |            |         |   |            |            |            |
|                          | USB3.2 (Gen2)                   | 4 Ports (10 Gbps)   |                        |            |         |   |            |            |            |
|                          | USB2.0                          | 8 Ports (480 Mbps)  |                        |            |         |   |            |            |            |
|                          | SPI Bus                         | Yes. For BIOS EEPROM  |                        |            |         |   |            |            |            |
|                          | GPIO                            | 8-bit   |                        |            |         |   |            |            |            |
|                          | Watchdog                        | 65536 level, 0 ~ 65535 sec  |                        |            |         |   |            |            |            |
|                          | COM Port                        | 2 Ports (2-Wire)  |                        |            |         |   |            |            |            |
|                          | TPM                             | TPM2.0 (optional)   |                        |            |         |   |            |            |            |
|                          | 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.) |                                 | 68.38W @ 12V (i7-11850HE with 128GB DDR4 3200)  |                        |            |         |   |            |            |            |
| Power Consumption (Idle) |                                 | 15.75W @ 12V (i7-11850HE with 128GB DDR4 3200)  |                        |            |         |   |            |            |            |
| Environment              | Operating Temperature           | Operating Standard: 0 ~ 60° C (32 ~ 140° F),<br>Extend: -40 ~ 85° C (-40 ~ 185° F) with 0.7m/s air flow.<br>Storage: -40 ~ 85° C (-40 ~ 185° F) |                        |            |         | Standard: 0 ~ 60° C (32 ~ 140° F)<br>Extend: -40 ~ 85° C (-40 ~ 185° F) |            |            |            |
|                          | Storage Temperature             | -40 ~ 85° C (-40 ~ 185° F)  |                        |            |         |   |            |            |            |
|                          | Humidity                        | Operating: 40° C @ 95% relative humidity, non-condensing<br>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 | Base Freq. | Max. Boost Freq. | CPU TDP | LLC  | PCH    | DDR4 SODIMM | SSD | USB4    | Thermal solution | Operating Temp. |
|-------------------|----------------------|------|------------|------------------|---------|------|--------|-------------|-----|---------|------------------|-----------------|
| SOM-5883C7Q-U6A1  | Core i7-11850HE      | 8    | 2.6GHz     | 4.7GHz           | 45W/35W | 24MB | QM580E | non-ECC     | N/A | N/A     | Active           | 0 ~ 60 °C       |
| SOM-5883C5Q-U6A1  | Core i5-11500HE      | 6    | 2.6GHz     | 4.5GHz           | 45W/35W | 12MB | QM580E | non-ECC     | N/A | N/A     | Active           | 0 ~ 60 °C       |
| SOM-5883C3Q-U4A1  | Core i3-11100HE      | 4    | 2.4GHz     | 4.4GHz           | 45W/35W | 8MB  | QM580E | non-ECC     | N/A | N/A     | Active           | 0 ~ 60 °C       |
| SOM-5883C3QA-U4A1 | Core i3-11100HE      | 4    | 2.4GHz     | 4.4GHz           | 45W/35W | 8MB  | QM580E | non-ECC     | N/A | Option* | Active           | 0 ~ 60 °C       |
| SOM-5883CRQ-U6A1  | Celeron 6600HE       | 2    | 2.6GHz     | N/A              | 35W     | 8MB  | QM580E | non-ECC     | N/A | N/A     | Active           | 0 ~ 60 °C       |
| SOM-5883D8R-U6A1  | Xeon W-11865MRE (8C) | 8    | 2.6GHz     | 4.7GHz           | 45W/35W | 24MB | RM590E | ECC         | N/A | N/A     | Active           | 0 ~ 60 °C       |
| SOM-5883D6R-U6A1  | Xeon W-11555MRE (6C) | 6    | 2.6GHz     | 4.5GHz           | 45W/35W | 12MB | RM590E | ECC         | N/A | N/A     | Active           | 0 ~ 60 °C       |
| SOM-5883D4R-U4A1  | Xeon W-11155MRE (4C) | 4    | 2.4GHz     | 4.4GHz           | 45W/35W | 8MB  | RM590E | ECC         | N/A | N/A     | Active           | 0 ~ 60 °C       |
| SOM-5883D8RX-U6A1 | Xeon W-11865MRE (8C) | 8    | 2.6GHz     | 4.7GHz           | 45W/35W | 24MB | RM590E | ECC         | N/A | N/A     | Active           | -40 ~ 85 °C     |
| SOM-5883D6RX-U6A1 | Xeon W-11555MRE (6C) | 6    | 2.6GHz     | 4.5GHz           | 45W/35W | 12MB | RM590E | ECC         | N/A | N/A     | Active           | -40 ~ 85 °C     |
| SOM-5883D4RX-U4A1 | Xeon W-11155MRE (4C) | 4    | 2.4GHz     | 4.4GHz           | 45W/35W | 8MB  | RM590E | ECC         | N/A | N/A     | Active           | -40 ~ 85 °C     |
| SOM-5883D8RX-SSA1 | Xeon W-11865MLE (8C) | 8    | 1.5GHz     | 4.5GHz           | 25W     | 24MB | RM590E | ECC         | N/A | N/A     | Active           | -40 ~ 85 °C     |

\*SOM-MZ10 is not included in SOM-5883C3QA-U4A1, need to be purchased from optional accessories  
 Any other SKUs or combination is project based support. Please contact sales for details.  
 Memory sockets maximum 4pcs. 2pcs top side by default & 2pcs bottom side by option.

## 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 |

## Packing List

| Part No.       | Description              | Quantity |
|----------------|--------------------------|----------|
| -              | SOM-5883 COM module      | 1        |
| 1970005238T000 | Heatspreader of SOM-5883 | 1        |

## Optional Accessories

| Part No.       | Description                                 |
|----------------|---|
| 1970005036T001 | Semi-Cooler 125 x 95 x 33.2 mm with 12V Fan |
| 1970005367T001 | QFCS 125x95x26.86 mm                        |

## Embedded OS

| OS           | Part No.       | Description                         |
|--------------|----------------|-------------------------------------|
| Win10        | 20706WX9HS0143 | img W10 19HL SOM-5883 64b 1809 ENU  |
| Win10        | 20706WX9VS0147 | img W10 19VL SOM-5883 64b 1809 ENU  |
| Win10        | 20706WX9ES0158 | img W10 19EL SOM-5883 64b 1809 ENU  |
| Ubuntu 20.04 | 20706U20DS0030 | img Ubnun20.4 SOM-5883 64b 2004 ENU |

# Tento produkt můžete zakoupit u společnosti AutoCont IPC a.s.



## AutoCont IPC a.s.

Váš dodavatel průmyslových počítačů, komponent a speciálních průmyslových IT systémů.

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 +420 552 301 002

 [www.autocont-ipc.cz](http://www.autocont-ipc.cz)



### PRŮMYSLOVÉ POČÍTAČE

*fanless embedded PC, do racku, ...*



### POČÍTAČE S DISPLEJEM

*panelové PC, terminály, do vozidel, ...*



### AUTOMATIZACE A SBĚR DAT

*převodníky, karty, moduly, switche, ...*



### PERIFERIE A KOMPONENTY

*monitory, klávesnice, desky, skříně, ...*



### NOTEBOOKY A TABLETY

*odolné, windows, android, IP65, ...*



### INFORMAČNÍ KIOSKY

*interiérové, venkovní, ...*



### MEDICÍNSKÁ TECHNIKA

*počítače, tablety, LCD, klávesnice, ...*



### SOFTWAREVÁ ŘEŠENÍ

*pro výrobu, zaměstnance, kiosky, ...*



### PŘEJÍT DO E-SHOPU

[eshop.autocont-ipc.cz](http://eshop.autocont-ipc.cz)



### DOPRAVA ZDARMA

Doprava zdarma v ČR a SR při objednávce nad 10 000 Kč bez DPH nebo nad 400 EUR.



### PRODLOUŽENÁ ZÁRUKA

Záruka 2 roky na vyráběné počítače s možností jejího prodloužení až na 5 let.



### ODMĚNA ZA VĚRNOST

Pravidelní zákazníci u nás nakupují za nižší ceny. Výše slevy se odvíjí od realizovaného obrátu.



### SERVIS ON-SITE A IN-TIME

K projektovým dodávkám nabízíme rozšířenou podporu a servis s garancí výměny zařízení do 48 hodin.