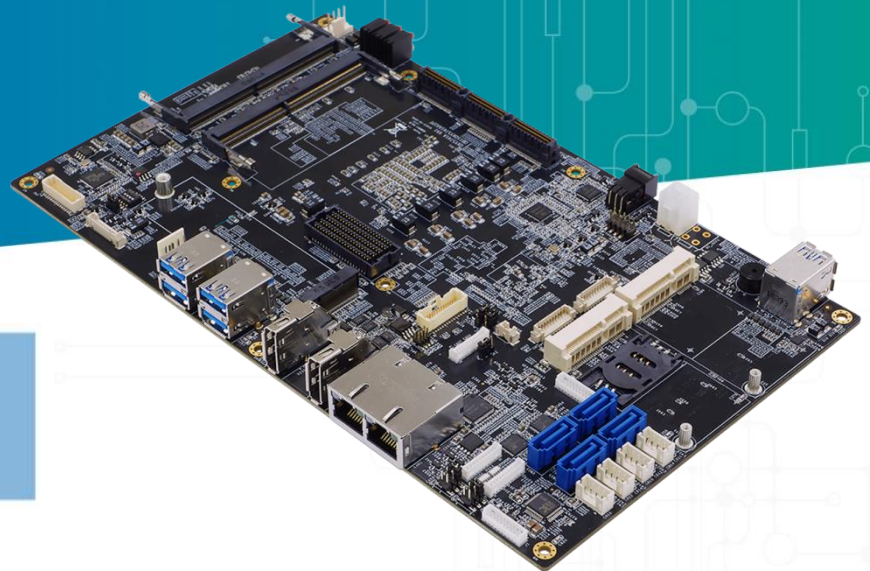


# Ruggedised open-standard EBX SBC expansion, Extended temperature -40 to 85°C



Extended  
Temperature  
+85°C  
-40°C

CPU Full Speed



- 9th / 8th Gen Intel® Xeon® / Core™ processor with up to 6 Intel® Xeon® E-2276ME / Xeon® E-2276ML / Core™ i7-9850HE / Core™ i7-9850HL / Core™ i5-8400H
- PCIe/104 stackable bus structure(Type 2)
- FPE connector ( 1\*PCIe x 16 or 2\*PCIe x 8 or 1\*PCIe x 8+2\*PCIe x 4)
- 4 x DDR4-2666MHz, up to 128GB, ECC for Xeon® SKU
- Multi display" Triple simultaneous displays with 48-bit LVDS+DP
- 1 x M.2 2280 M-key, 2 x Full size mPCIe, 1 x PCIe/104, 1 x FPE
- Dual GbE, 4 x SATA III, 2x RS232/422/485
- 6 x USB 3.0, 4 x USB 2.0
- Extended operating temp. -40 to 85°C

## Specifications

### System

CPU	Intel® Core™ i7-9850HE Processor (6 Cores/12 Threads,9M Cache,up to 4.40GHz),45W Intel® Core i7-9850HL Processor (6 Cores/12 Threads,9M Cache,up to 4.10GHz), 25W Intel® XEON® E-2276ME Processor (6 Cores/12 Threads,12M Cache,up to 4.50GHz),45W Intel® XEON® E-2276ML Processor (6 Cores/12 Threads,12M Cache,up to 4.20GHz),25W Intel® Core™ i5-8400H Processor (6 Cores/12 Threads,8M Cache,up to 4.20GHz),45W
Memory type	4 x 260 Pin DDR4 2666MHz SO-DIMM (up to 128GB, XEON® SKU support ECC)
Chipset	CM246
BIOS Core	AMI® UEFI BIOS
BIOS Flash	SPI Flash
Super I/O	ITE 8786
TPM	TPM 2.0(SLB9665)
iAMT	iAMT 12.0
Watchdog	1-255 sec. or 1-255 min.software programmable and can be generate system reset

### Expansion Slot

M.2	1 x M.2(M-key,Type: 2280, SATA/PCIe 3.0 x 4 NVMe)
Mini PCIe	2 x Full size (USB / PCIe and 1 x micro SIM Card)
FPE	1
PCIe/104	1 x TYPE 2

### Display

Chipset	Intel® UHD Graphics 630
LVDS	Dual channel 24-bit LVDS, max resolution up to 1920 x 1200 @ 60Hz
Display Port	Up to 4096 x 2304 @ 60Hz
Multi-Display	Triple simultaneous displays with 48-bit LVDS+DP

**Ethernet**

Chipset	Intel® I210 & I219LM GbE LAN (10/100/1000 Mbps supported )
WOL	Yes
Boot from LAN	Yes for PXE

**Audio**

Codec	ALC888S
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**Rear IO**

Display Port	2
USB	4 x USB 3.0
LAN	2

**Front IO**

LED	6 (HDD, 2 x LAN ACT+LINK) RED/GREEN LED
PW Button	1
USB	2 x USB 3.0

**Internal I/O**

USB2.0	4
GPIO	1(4in/4out)
SATAIII	4 (0,1,5 RAID)
SATA Power	4
DP	1
Audio	1 (Line-out /Mic-in)
Serial	2 (RS-232/422/485 autoflow control)
DC connector	1
LVDS Inverter	1
LVDS connector	1
LPC	1
CPU Fan	1
Front Panel Control	Power LED, HD LED, Reset, Power Switch, Buzzer

**Mechanical and Environmental**

Form Factor	EBX
Power Type	DC-IN 12V
Power Consumption	180W
Dimension	146mm x 243mm
Operating Temperature	-40 to 85°C
Storage Temperature	-40 to 85°C
Relative humidity	10% to 90%, non-condensing

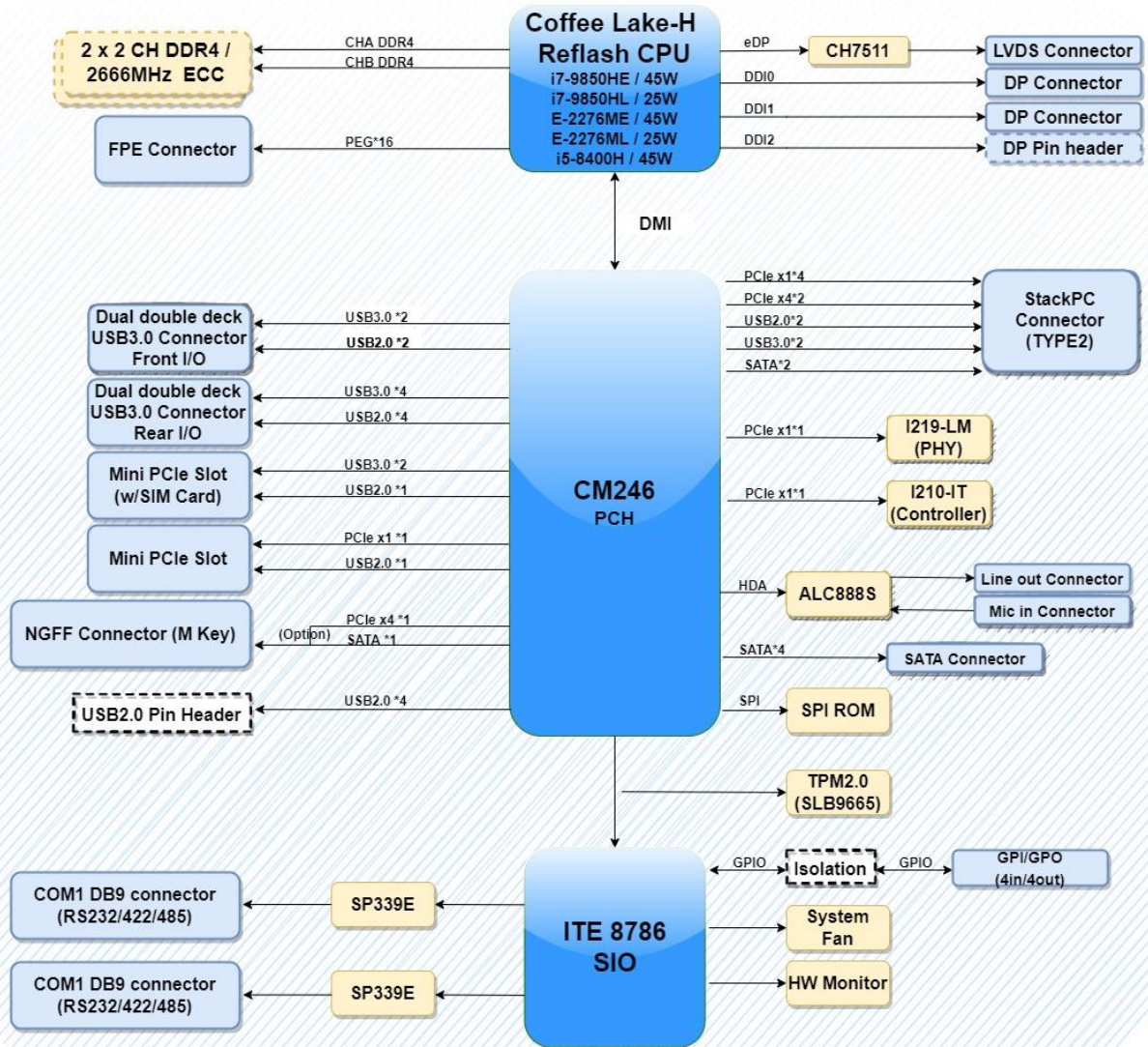
**Standard Compliance**

Standard Compliance	CE/FCC
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**OS**

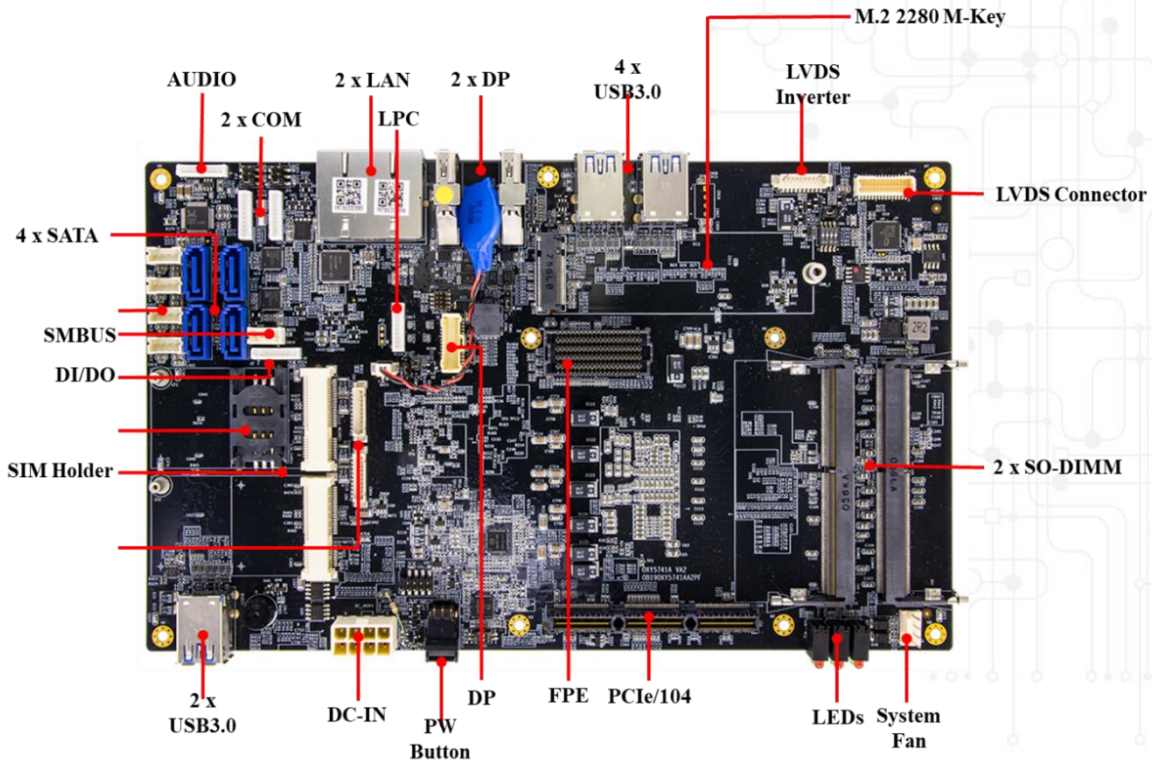
OS Support	Windows®10 64-bit Linux(Support by request)
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# Block Diagram

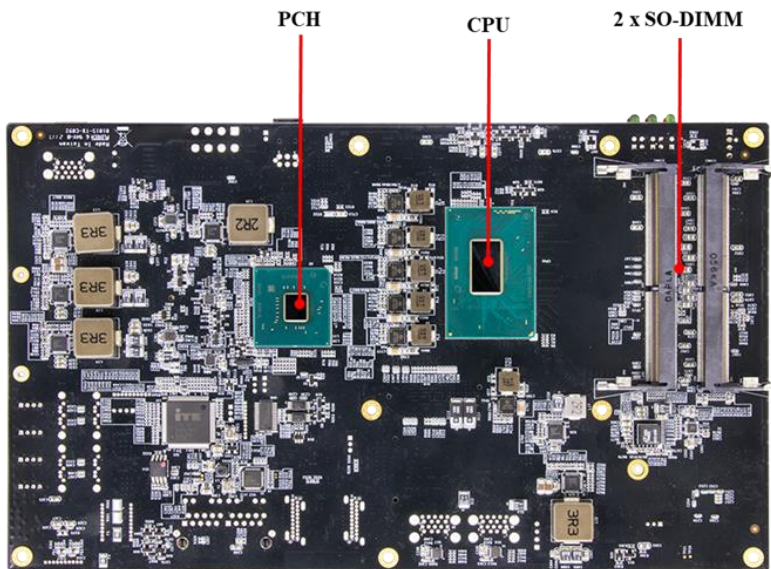


# Board Placement

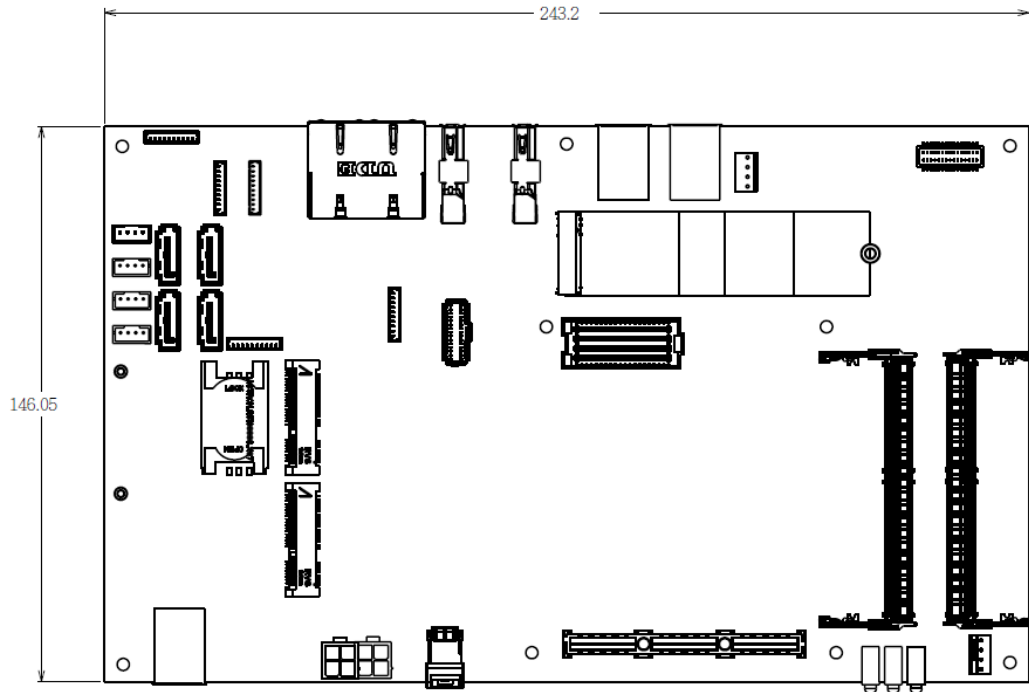
OXY5741A Top Side



OXY5741A Bottom Side



## Mechanical Dimensions



## Ordering Information

Model	Description
OXY5741A-01	Intel® Core™ i7-9850HE Processor, EBX SBC,W/PCIe/104 expansion module
OXY5741A-02	Intel® Core™ i7-9850HL Processor, EBX SBC,W/PCIe/104 expansion module
OXY5741A-03	Intel® Xeon® E-2276ME Processor, EBX SBC,W/PCIe/104 expansion module
OXY5741A-04	Intel® Xeon® E-2276ML Processor, EBX SBC,W/PCIe/104 expansion module
OXY5741A-05	Intel® Core™ i5-8400H Processor, EBX SBC,W/PCIe/104 expansion module