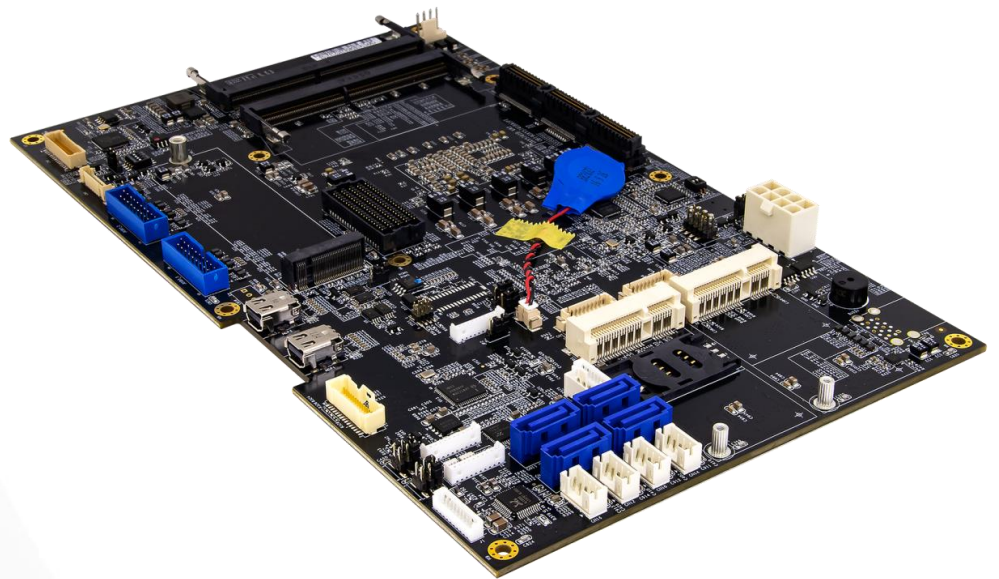




OXY5741B

Ruggedised open-standard EBX SBC expansion,

Extended temperature -40°C to 85°C



- 9th / 8th Gen Intel® Xeon® / Core™ processor with up to 6 Intel® Xeon® E-2276ME / E-2276ML / Core™ i7-9850HE / i7-9850HL / i5-8400H
- PCIe/104 stackable bus structure (Type 2)
- FPE connector (1*PCIe x16 or 2*PCIe x8 or 1*PCIe x8+2*PCIe x4)
- 4x DDR4-2666MHz SO-DIMM, up to 128GB, ECC for Xeon® SKU
- Multi display" Triple simultaneous displays with 48-bit LVDS+DP
- 1x M.2 2280 M-key, 2x Full size mPCIe, 1x PCIe/104, 1x FPE
- Dual GbE, 4x SATA III, 2x RS232/422/485
- 6x USB3.0, 4x USB2.0
- Extended operating temp. -40 to 85°C

Specifications

System

CPU	Intel® Core™ i7-9850HE Processor (6 Cores/12 Threads, 9M Cache, up to 4.40 GHz), 45W Intel® Core™ i7-9850HL Processor (6 Cores/12 Threads, 9M Cache, up to 4.10 GHz), 25W XEON® E-2276ME Processor (6 Cores/12 Threads, 12M Cache, up to 4.50 GHz), 45W XEON® E-2276ML Processor (6 Cores/12 Threads, 12M Cache, up to 4.20 GHz), 25W Intel® Core™ i5-8400H Processor (6 Cores/12 Threads, 8M Cache, up to 4.20 GHz), 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

Display

Display Port	Resolution up to 4096 x 2304 @ 60Hz
Chipset	Intel® UHD Graphics 630
Multi-Display	Triple simultaneous display with LVDS + 2 x Mini-DP
LVDS	1* Dual Channel 24bit LVDS (w/auto-dimming support)

Audio

Codec	ALC888S
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Expansion Slot

M.2	1 x M.2 (M-key, type:2280, SATA/PCIe 3.0 x4 NVMe)
miniPCIe	2 x Full size (USB/PCIe and 1 x Micro SIM Card)

PCIe/104	TYPE 2
FPE	1 x FPE slot.

Ethernet

Chipset	Intel® I210 & I219LM GbE LAN (10/100/1000 Mbps supported) 2 x 100Base-FX port supported
WOL	Yes
Boot from LAN	Yes for PXE

Rear I/O

Display Port	2*mini-DIP Display Port Female 20P 90D
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Internal I/O header (No Edge I/O Needed)

SATA	4x SATAIII (RAID 0,1,5) , from 2 up to 4 ports
SATA power	4
LVDS	1 (1 x 30 pins) or equal ---> W/Auto-dimming supports), Bright light control
Inverter connector	1 x (10 pins) box header
8 bit GPIO	1 x (10 pins) box header
COM	2 x RS232/422/485 (2 x 10 pins) box header
SIM card holder	1 (Micro SIM) in mini-PCIe slot
LAN	2 x 10/100/1000 Base (20 x 1.0 wire to Board connector)
USB 3.0	4 x USB3.0 (2 x 20GU 2.0 x 2.0mm box header)
USB2.0	4 x USB2.0(2x5 Pins) box header
LPC	1 x LPC (10 pins) box header
Front Panel	1 (2 x 5 pins) Power BTN/HDD LED/Reset BTN/PWR LED
Smart Fan	1 x CPU Fan --->1 x 4 pins for CPU(PWM mode)
Audio	1 x MIC-IN / LINE OUT (10 pins) box header
Battery	1---> 1 x RTC battery holder
Power Connector	1 (4 x 2pin) horizontal type

Mechanical and Environmental

Form Factor	EBX
Dimension	146 mmX 243mm
Power Type	DC-IN 12V

Operation -40°C ~ 85°C (ambient with air flow)

Temperature

Storage Temperature -40°C ~ 85°C

Relative humidity 10% to 90%, non-condensing

Standard Compliance

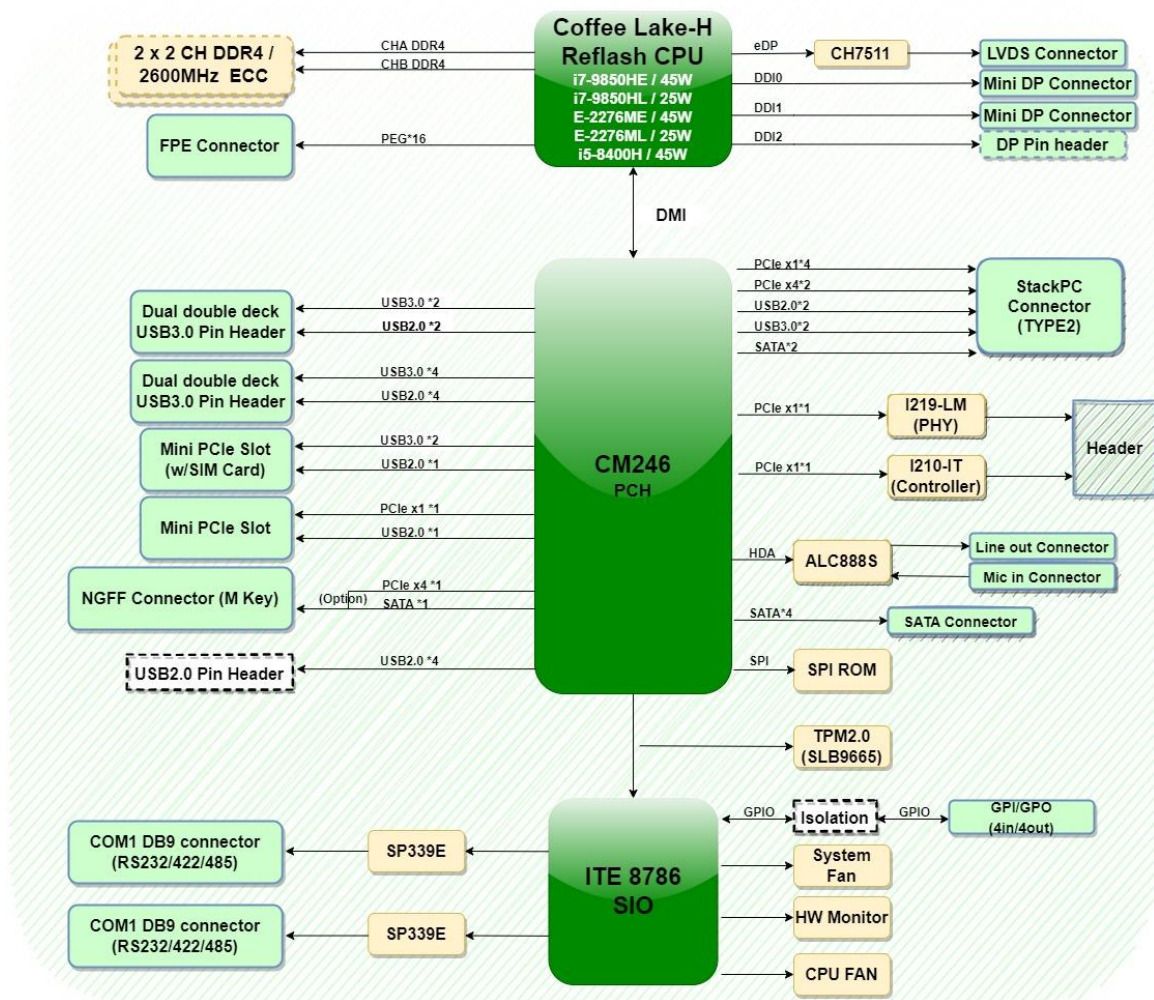
Standard Compliance CE/FCC

OS

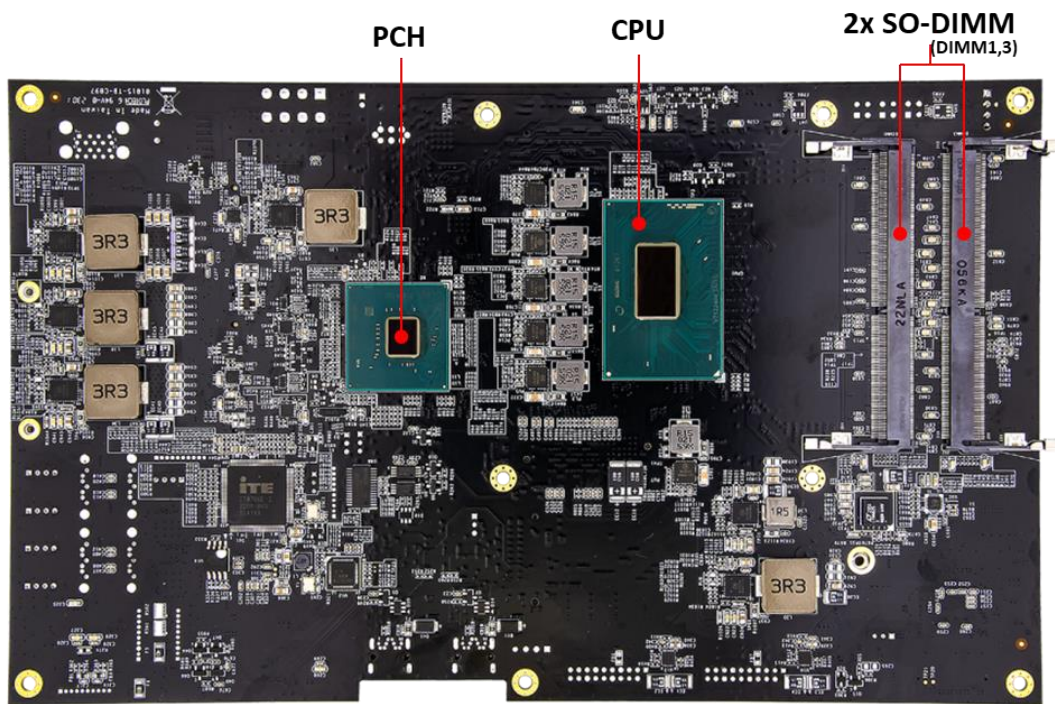
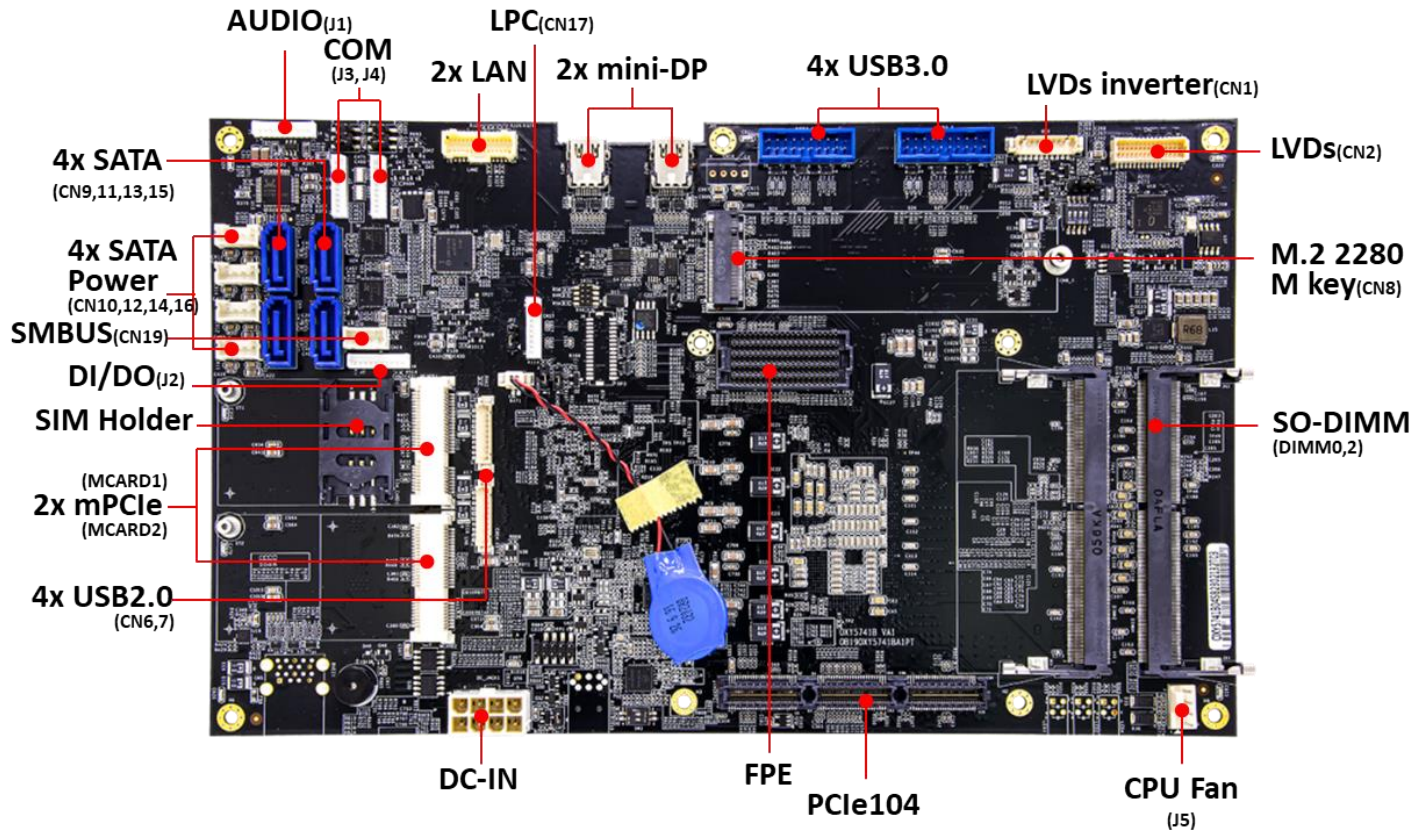
OS Support Windows® 10 64-bit

Linux (Support by request)

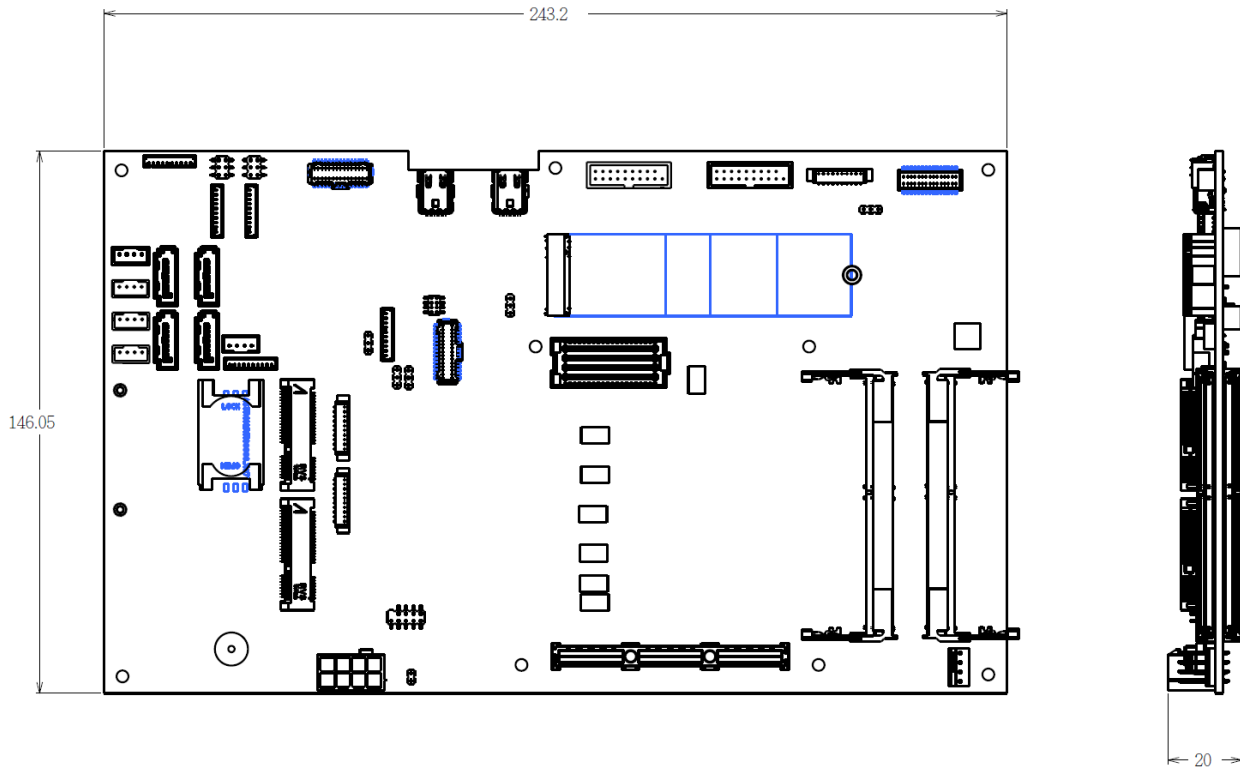
Block Diagram



Board Placement



Mechanical Dimensions



Ordering Information

Model	Description
OXY5741B-01ET	EBX Industrial Motherboard Intel Intel® 14nm Coffee Lake-H Processor I7-9850HE(Embedded) BGA(FCBGA1440) with 4 x DDR4 SO-DIMM, Dual Intel® GbE LAN, PCIe/104 Type2 & FPE, 12V (-20°C ~ 70°C)
OXY5741B-02ET	EBX Industrial Motherboard Intel Intel® 14nm Coffee Lake-H Processor I7-9850HL(Embedded) BGA(FCBGA1440) with 4 x DDR4 SO-DIMM, Dual Intel® GbE LAN, PCIe/104 Type2 & FPE, 12V (-20°C ~ 70°C)
OXY5741B-03ET	EBX Industrial Motherboard Intel Intel® 14nm Coffee Lake-H Processor E-2276ME(Embedded) BGA(FCBGA1440) with 4 x DDR4 SO-DIMM, Dual Intel® GbE LAN, PCIe/104 Type2 & FPE, 12V (-20°C ~ 70°C)
OXY5741B-04ET	EBX Industrial Motherboard Intel Intel® 14nm Coffee Lake-H Processor E-2276ML(Embedded) BGA(FCBGA1440) with 4 x DDR4 SO-DIMM, Dual Intel® GbE LAN, PCIe/104 Type2 & FPE, 12V (-20°C ~ 70°C)
OXY5741B-05ET	EBX Industrial Motherboard Intel Intel® 14nm Coffee Lake-H Processor I5-8400H(Embedded) BGA(FCBGA1440) with 4 x DDR4 SO-DIMM, Dual Intel® GbE LAN, PCIe/104 Type2 & FPE, 12V (-20°C ~ 70°C)

OXY5741B-01UT	EBX Industrial Motherboard Intel Intel® 14nm Coffee Lake-H Processor 7 I7-9850HE(Embedded) BGA(FCBGA1440) with 4 x DDR4 SO-DIMM, Dual Intel® GbE LAN, PCIe/104 Type2 & FPE, 12V (-40°C ~ 85°C)
OXY5741B-02UT	EBX Industrial Motherboard Intel Intel® 14nm Coffee Lake-H Processor I7-9850HL(Embedded) BGA(FCBGA1440) with 4 x DDR4 SO-DIMM, Dual Intel® GbE LAN, PCIe/104 Type2 & FPE, 12V (-40°C ~ 85°C)
OXY5741B-03UT	EBX Industrial Motherboard Intel Intel® 14nm Coffee Lake-H Processor E-2276ME(Embedded) BGA(FCBGA1440) with 4 x DDR4 SO-DIMM, Dual Intel® GbE LAN, PCIe/104 Type2 & FPE, 12V (-40°C ~ 85°C)
OXY5741B-04UT	EBX Industrial Motherboard Intel Intel® 14nm Coffee Lake-H Processor E-2276ML(Embedded) BGA(FCBGA1440) with 4 x DDR4 SO-DIMM, Dual Intel® GbE LAN, PCIe/104 Type2 & FPE, 12V (-40°C ~ 85°C)
OXY5741B-05UT	EBX Industrial Motherboard Intel Intel® 14nm Coffee Lake-H Processor I5-8400H(Embedded) BGA(FCBGA1440) with 4 x DDR4 SO-DIMM, Dual Intel® GbE LAN, PCIe/104 Type2 & FPE, 12V (-40°C ~ 85°C)