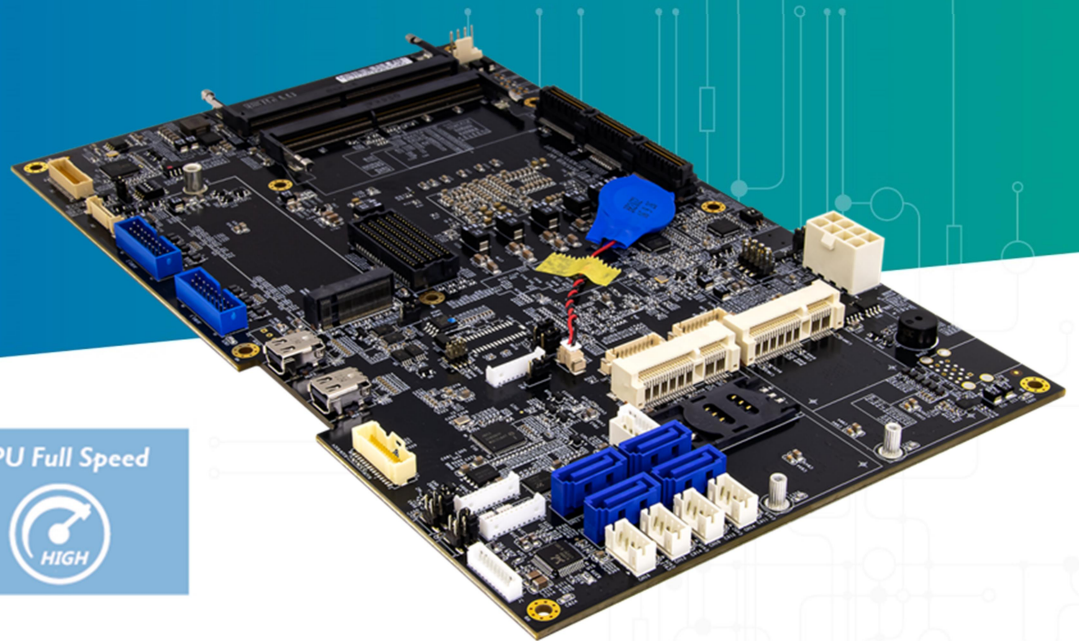


Ruggedised open-standard EBX SBC expansion, Extended temperature -40°C to 85°C



Extended
Temperature
+85°C
-40°C

CPU Full Speed



- 9th / 8th Gen Intel® Xeon® / Core™ processor with up to 6 Intel® Xeon® E-2276ME / 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°C 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 XEON® E-2276ME Processor (6 Cores/12 Threads,12M Cache,up to 4.50GHz),45W 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

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 24-bit LVDS, max resolution up to 1920 x 1080 @60Hz (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)
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miniPCle	2 x Full size (USB/PCle and 1 x Micro SIM Card)
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PCle/104	TYPE 2
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FPE	1 x FPE slot.
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Ethernet

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

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

Form Factor	EBX
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Dimension	146mm x 243mm
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OXY5741B

Power Type	DC-IN 12V
Operating Temperature	-40°C to 85°C(ambient with air flow)
Storage Temperature	-40°C to 85°C
Relative humidity	10% to 90%, non-condensing

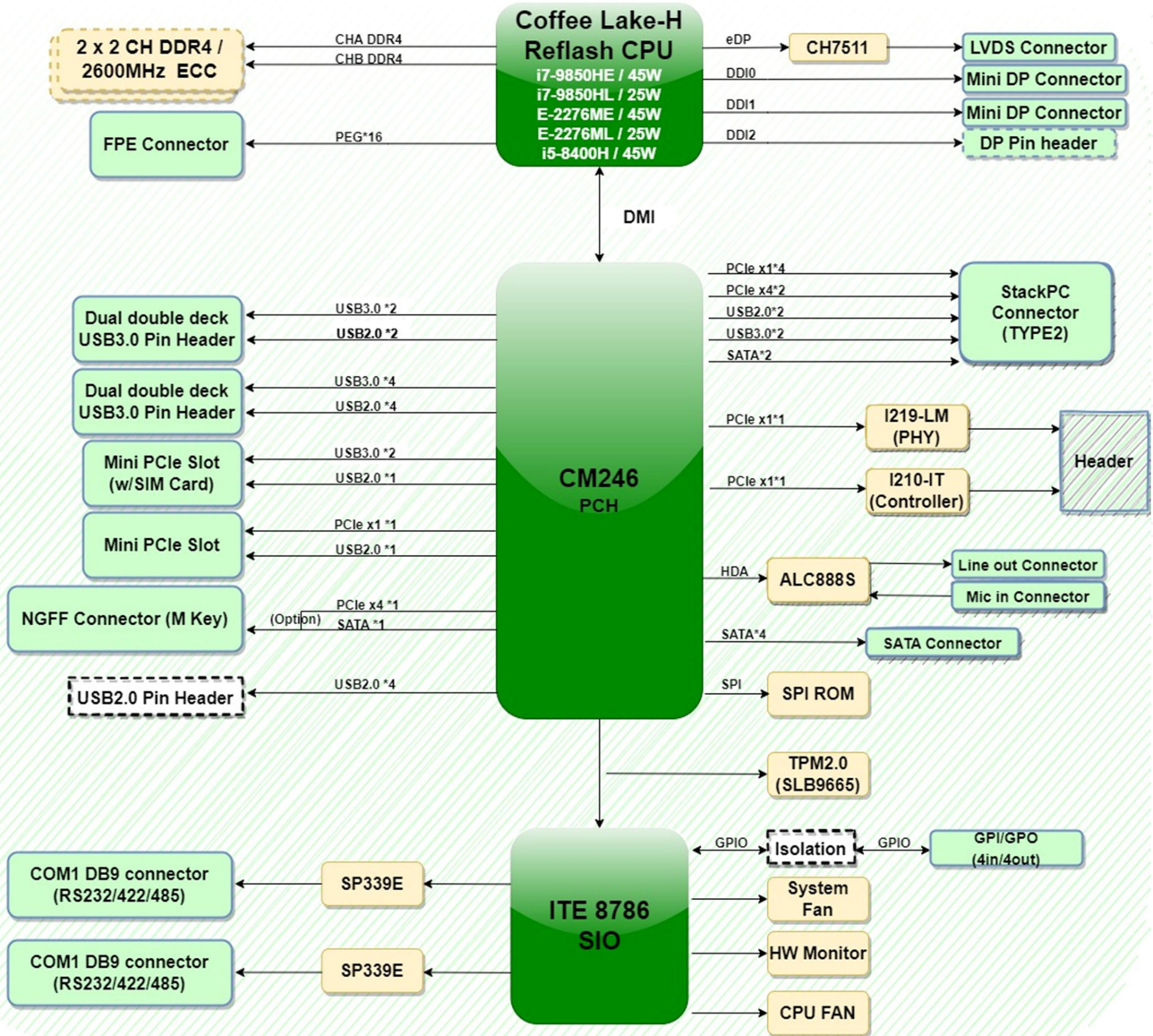
Standard Compliance

Standard Compliance	CE/FCC
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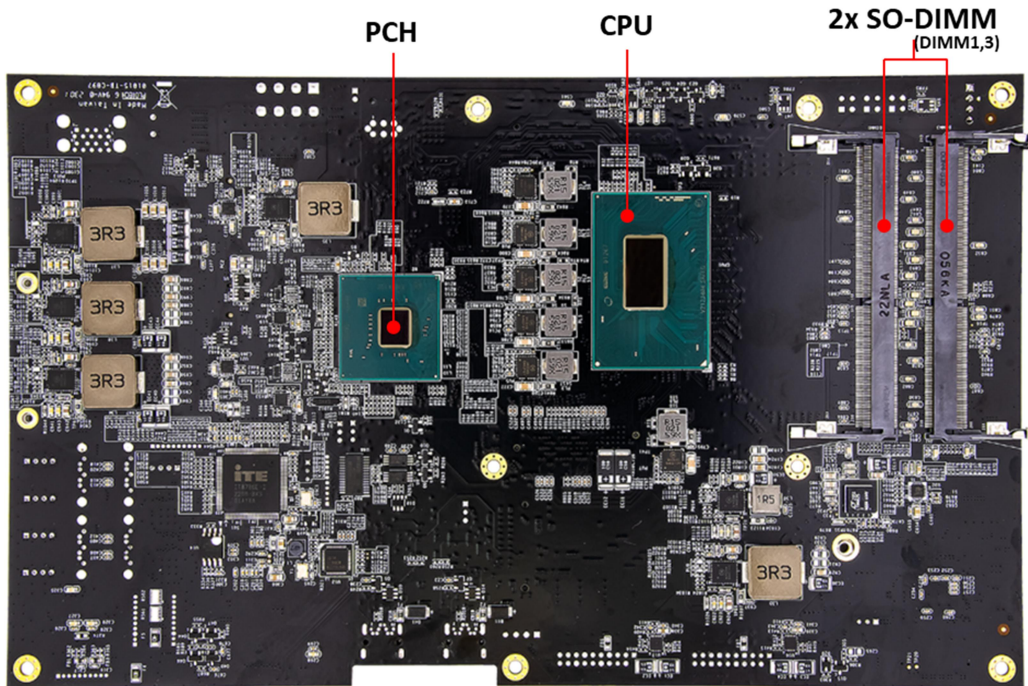
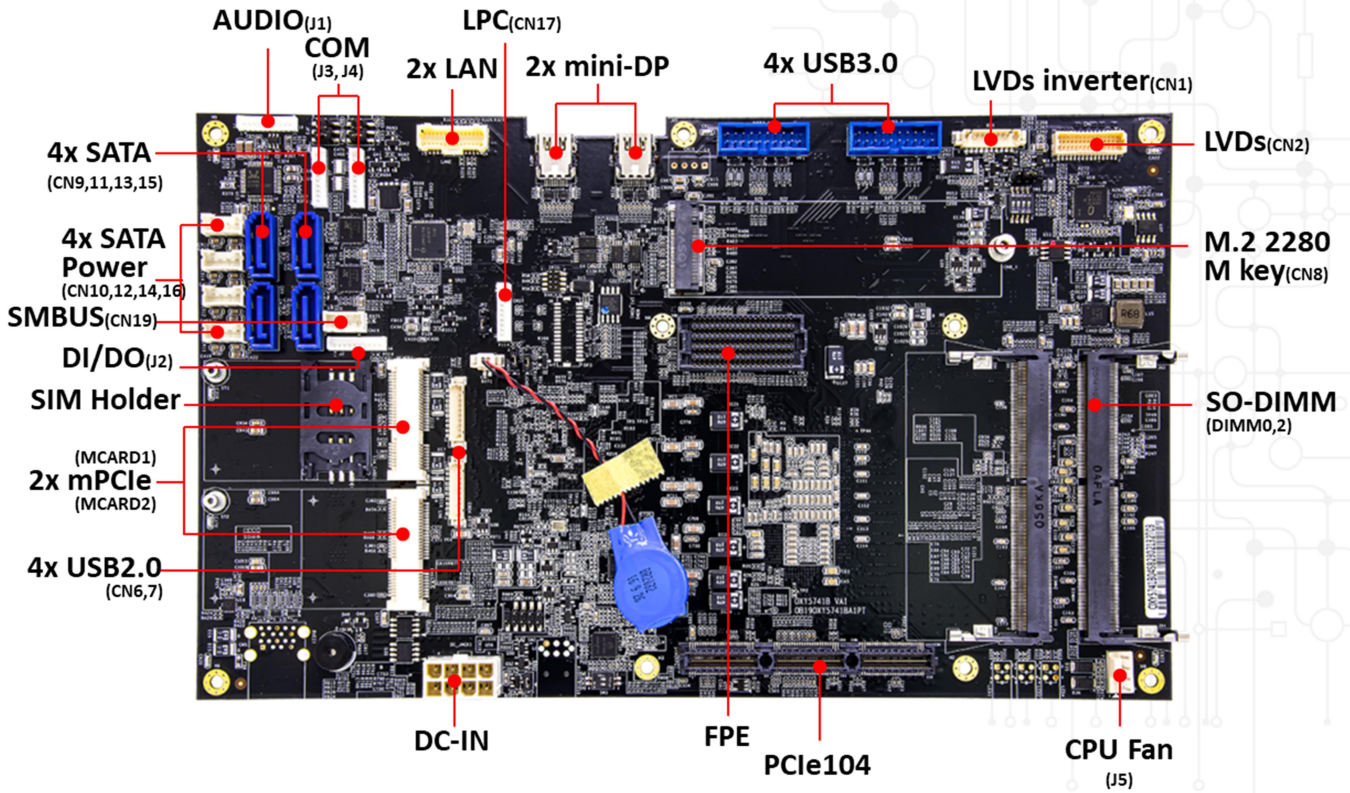
OS

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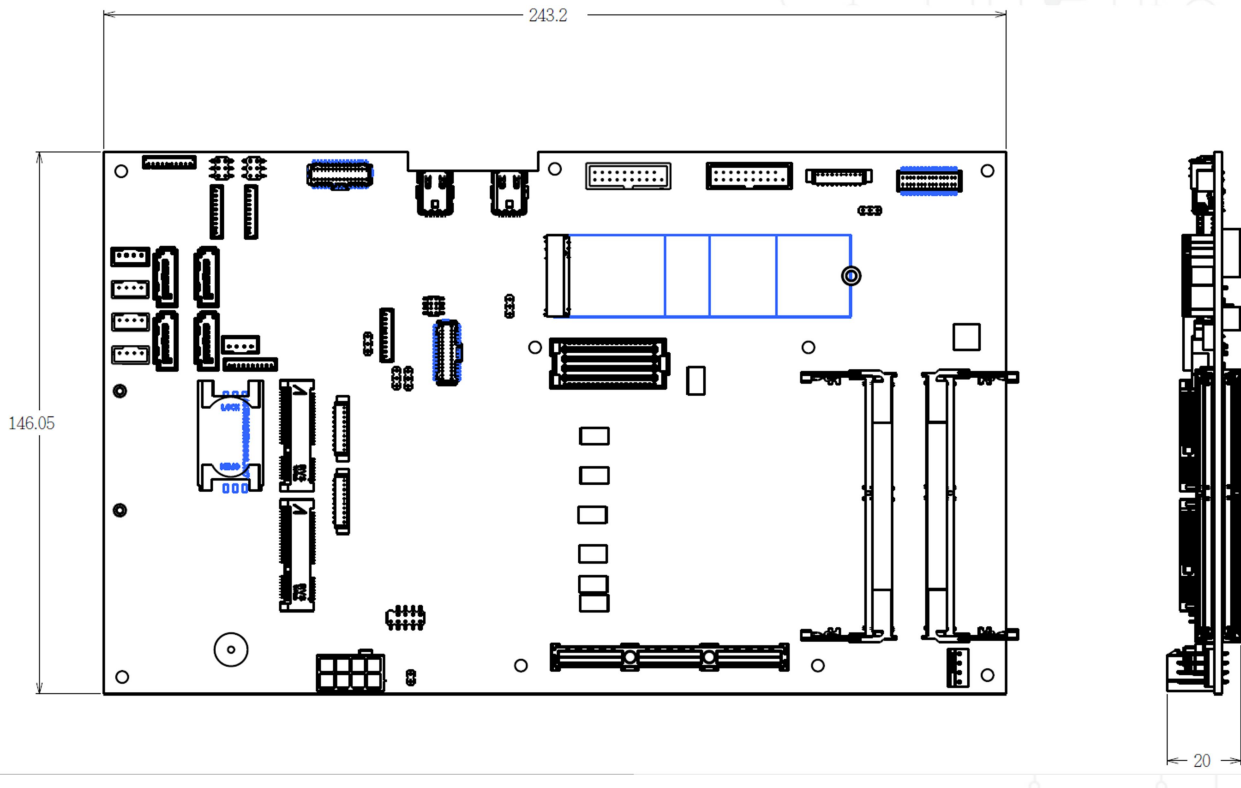
Block Diagram



Board Placement



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)

Model	Description
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)