

Industrial Motherboards for OEM/ODM

ONYX MAX-C246A

Micro-ATX Industrial Motherboard with 8th/9th Generation Intel® Core™ Processor



Features

- 8th/9th Generation Intel® Core™ LGA1151 Processor
- Supports Power 95W max.
- DDR4 2666/2400/2133 MHz, max. 64GB
- Three Independent Displays: HDMI x 2, VGA x 1, DP x 1
- Dual Intel® Gigabit Ethernet, i211AT x 1, i219LM x 1, i219LM Supports iAMT 12.0
- M.2 E-key (PCIe/USB) x 1, M.2 M-key (PCIex4/SATA3) x 1
- USB 3.2 Gen 2 ports x 6, USB 3.2 Gen 1 ports x 4
- TPM Onboard



Specifications

System

Processor	8th/9th Generation Intel® (Coffee Lake-S) Core™ i9/ i7/ i5 / i3, Pentium™ 14nm, Celeron™, Xeon™ E-2200/2100, LGA 1151 socket Processor, Max. 95W (E-2278GE, 8C16T)
Chipset	Intel® C2460 Express Chipset
Memory	DIMM x 4, DDR4 (2666/2400/2133 MHz, max. 64GB) ECC, un-buffered memory Dual-channel memory architecture
I/O Chipset	NCT6793D+ F81216HD
Ethernet	Intel® PHY i219LM Gb LAN (supports Intel® AMT 12.0) x 1 Intel® i211AT Gb LAN x 1 RJ45 x 2
Audio	Realtek® ALC887 6-Channel High Definition Audio CODEC
TPM	Nuvoton NPCT750AAAYX TPM2.0 onboard
Expansion Slots	PCIe 3.0[x16] Slot x 1, PCIe 3.0[x4] Slot x 2(open edge) PCIe 3.0[x1] Slot x 1(open edge), M.2 2230 E-key x 1(PCIe+USB), M.2 2280 M-key x 1(PCIex4/SATA3)
BIOS	256M bit Flash ROM, AMI BIOS
H/W Monitor	Temperature Monitor on CPU/Chassis, Voltage Monitor on Vcore/5V/3.3V/12V, Fan Monitor on CPU/Chassis
WatchDog Timer	1~255 steps by software program
Smart Fan Control	CPU Fan/ Chassis Fan X 2
Wake on LAN/ PXE	Yes (WOL / PXE)
Power State	S3, S4, S5

Graphics

Graphics Chipset	Intel® UHD Graphics
Graphics Multi Display	HDMI+VGA+DP, HDMI+HDMI+VGA, HDMI+HDMI+DP
VGA	Up to 1920 x 1200 @60Hz (via IT6516B)
DVI	—
HDMI	Up to 4096 x 2160 @ 24 Hz / 2560 x 1600 @ 60 Hz, with Digital Audio
Display Port	Up to 4096 x 2160 @ 24 Hz / 3840 x 2160 @ 60 Hz, with Digital Audio
LVDS	—
eDP	—
Backlight Control	—

Environment / Power / ME

Battery	Lithium battery
Power Requirement	24-pin ATX connector x 1, 8-pin (2x4) ATX 12V Power connector x 1
Operation Temp.	32°F ~ 140°F (0°C ~ 60°C)
Storage Temp.	-40°F ~ 185°F (-40°C ~ 85°C)
Operation Humidity	0% ~ 90% RH, non-condensing
Certificate	CE & FCC (Class A)
Form Factor	Micro-ATX, 9.6" x 9.6" (244mm x 244mm)
Weight	1.76 lb (0.8 Kg)
MTBF (Hours)	264,820

Rear Panel I/O Ports

USB	USB 3.2 Gen 2 ports (10 Gbps) x 6, USB 3.2 Gen 1 ports (5 Gbps) x 4
Display I/O	DP x 1, VGA x 1, HDMI x 2
Audio I/O	Audio Jack x 3: Line-in, Mic-in, Line-out
LAN I/O	LAN (RJ-45) port x 2
Serial Port	—
PS/2 Port	PS/2 Combo Port (Keyboard & Mouse) x 1
Others	—

Internal I/O Connectors

Storage	SATA3 (6.0Gb/s) ports x 4, support RAID 0/1/5/10 M.2 2280 M-key (PCIex4/SATA3) x 1
USB	USB USB 2.0 headers support additional 3 USB ports (2x5PIN, p=2.54mm) x 2
Display I/O	—
Audio I/O	Speaker for 2W@4Ω x 1
Serial Port	RS-232 Boxer headers x 5
PS/2 Port	—
Parallel Port	—
DIO	8-bit Digital I/O interface x 1 (In/Out programmable)
FAN	CPU Fan connector(s) (4-pin) x 1, Chassis Fan connector(s) (4-pin) x 2
Power	—
Others	Chassis Intrusion x 1 AT/ATX mode select jumper x 1 Front panel header x 1 Clear CMOS jumper x 1
OS Support	Windows® 10 64-bit, Linux Ubuntu 64-bit (18.04.1/Kernel4.8.0)