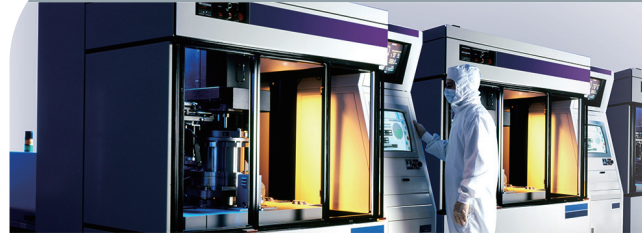


# UMBC-1000 Series

9th Gen Intel® Xeon®/Core™ i7/i5/i3 Processor (Coffee Lake Refresh)  
MicroATX Motherboard with Intel® C246/H310 Chipset

- LGA1151 socket supports 9th Gen Intel® Xeon®/Core™ i7/i5/i3 processor (Coffee Lake Refresh) with Intel® C246/H310 chipset
- Supports DDR4 2666/2400MHz U-DIMM memory, up to 128GB (ECC/Non-ECC)
- Display : VGA, DisplayPort and HDMI display interfaces, up to 4K resolution
- 4 Independent GigE LAN, iAMT 12.0 supported
- Supports PCI Express Gen 3 : 1 PCIe x16, 2 PCIe x4, 1 M.2
- 6 USB 3.1, 4 USB 2.0, 5 COM RS-232/422/485, 8 SATA III, 16 GPIO
- Supports RAID 0, 1, 5, 10 data protection
- Supports case open detection
- Optional supports TPM 2.0/1.2

Smart Manufacturing



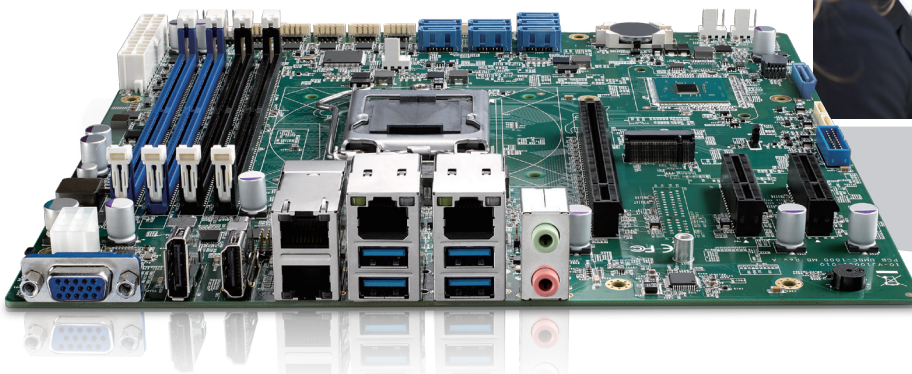
Public Surveillance



Gaming



Self-Service Kiosk



intel  
partner  
Gold



# Specifications

## System

Processor	8 cores Intel® Xeon®/Core™ i7/i5/i3 processor (CFL-R S), up to 12M Cache, 3.7GHz
Chipset	Intel® C246/H310
BIOS	AMI
SIO	IT8786E
Memory	4 DDR4 2666/2400/2133 MHz U-DIMM, up to 128GB (ECC/Non-ECC)
OS	Windows 10, Linux

## Graphics

Processor	Intel® UHD Graphics 630
Interface	- VGA : Up to 1920 x 1200 @60Hz - DisplayPort : Up to 4096 x 2160 @60Hz - HDMI : Up to 4096 x 2160 @24Hz

## Ethernet

LAN 1	Intel® I219LM GigE LAN supports iAMT 12.0
LAN 2	Intel® I211AT GigE LAN
LAN 3	Intel® I211AT GigE LAN
LAN 4	Intel® I211AT GigE LAN

## Audio

Audio Codec	Realtek ALC888S-VD, 7.1 Channel HD Audio
Audio Interface	1 Mic-in, 1 Line-out

## I/O Interface

Rear I/O	- 1 HDMI Connector - 1 DisplayPort Connector - 1 VGA Connector - 4 RJ45 Connector - 4 USB 3.1 Type A Connector
Internal I/O	- 5 COM RS-232/422/485 Header - 8 SATA Connector - 4 USB 2.0 Header - 2 USB 3.1 Header - 1 GPIO Header - 1 CPU Fan Header - 4 System Fan Header

## Storage

SATA	8 SATA III (6Gbps) support 5W RAID 0, 1, 5, 10
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## Expansion

PCIe x16	1 PCIe x16 Slot (Gen 3)
PCIe x4	2 PCIe x4 Slot (Gen 3)
M.2	1 M.2 Key M Socket

## Power

Power Input	+12V 7.25A +5V 0.58A +3.3V 0.27A 5VSB 0.07A
Power Type	ATX Input
Power Interface	- 1 24-pin ATX Power Connector - 1 8-pin 12V ATX Power Connector

## Others

TPM	Optional Infineon SLB9665 supports TPM 2.0, LPC Interface
Watchdog Timer	Reset : 1 to 255 sec./min. per step
Smart Mgmt.	Wake on LAN, PXE supported
HW Monitor	Monitoring temperature, voltages. Auto throttling control when CPU overheats.

## Mechanical

Dimensions	243.8mm x 243.8mm (9.60" x 9.60")
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## Environment

Operating Temp.	0°C to 60°C (-32°F to 140°F)
Storage Temp.	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing
Relative Humidity	95% at 60°C
EMC	CE, FCC

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## Packing List

UMBC-1000 MicroATX Motherboard	x1
Driver/User Manual DVD	x1
I/O Shield Bracket	x1
M.2 Device Screw	x1

## Order Information

Model	PCH	U-DIMM	ECC	GigE	COM	USB 3.1	USB 2.0	SATA III	M.2	PCIe x16	PCIe x4
UMBC-1100	C246	4	Y	4	5	6	4	8	1	1	2
UMBC-1000	H310	2	N	2	2	4	3	4	0	1	0

## CPU List

Model	Series	CPU	Cores	GHz	TDP (W)	ECC RAM
UMBC-1100	Intel® Xeon®	E-2278GE	8	4.7	80	Yes
		E-2278GEL	8	3.9	35	
		E-2226GE	6	4.6	80	
		E-2176G	6	4.6	80	
		E-2124G	4	4.5	71	
UMBC-1100 UMBC-1000	Intel® Core™	i7-9700E	8	4.4	65	N/A
		i7-9700TE		3.8	35	
		i7-8700	6	4.6	65	
		i7-8700T		4	35	
		i5-9500E		4.2	65	
		i5-9500TE	3.6	35		
		i5-8500	4	4.1	65	
		i5-8500T		3.5	35	
		i3-9100E		3.7	65	
		i3-9100TE	3.2	35		
i3-8100	4	3.6	65			
i3-8100T		3.1	35			
						Yes

## Optional Accessories

COM Port Cable	COM Cable with DB9 Connector
SATA Data Cable	SATA Cable with 7P SATA Vertical SATA Connector
USB 2.0 Cable	USB Cable with Dual USB 2.0 Type A Connector
USB 3.1 Cable	USB Cable with Dual USB 3.1 Type A Connector
1U CPU Cooler	CPU Cooler for 1U Chassis
2U CPU Cooler	CPU Cooler for 2U Chassis

## Dimensions & Drawing

Unit : mm (inch)

