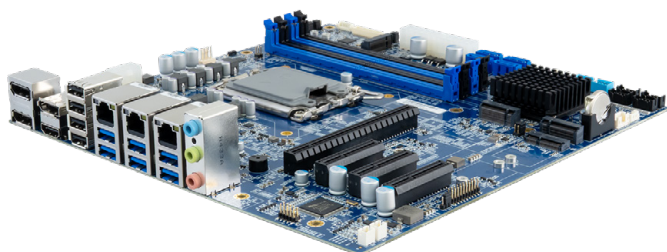


IPC-MP2K319

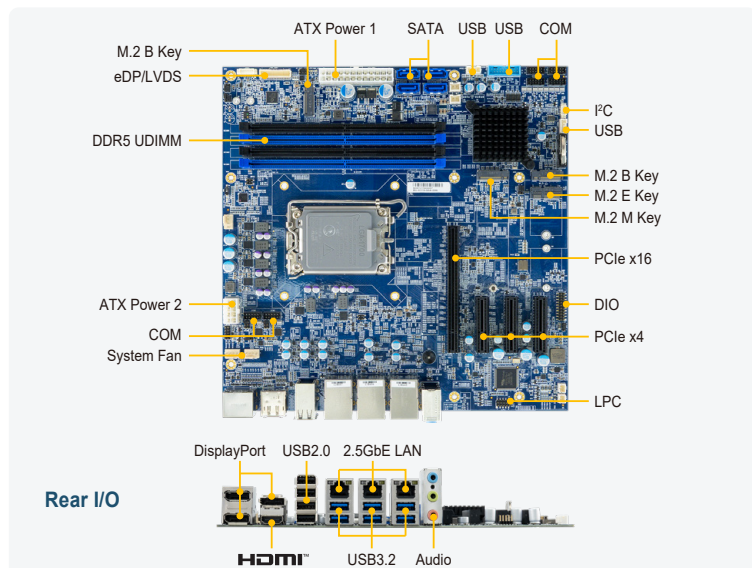
Intel® 14th/13th/12th Gen. Core™ Processor Industrial Micro-ATX Motherboard



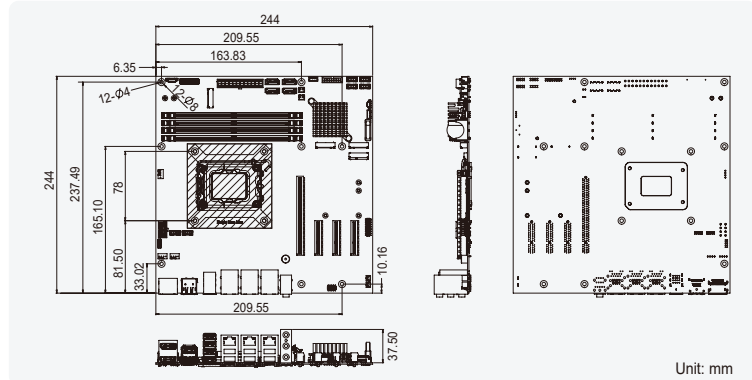
Features

- Featuring Intel® 14th/13th/12th Gen. Core™ i9/i7/i5/i3 & Pentium®/Celeron® Processors
- Optional Intel® R680E/Q670E/H610E PCH
- Max. 6 x COM, 3 x LAN, and 14 x USB ports (R680E/Q670E)
- 1 x HDMI™ & 3 x DP
- 4 x PCIe & 4 x M.2 slots for versatile expansion (R680E/Q670E)

I/O Connector

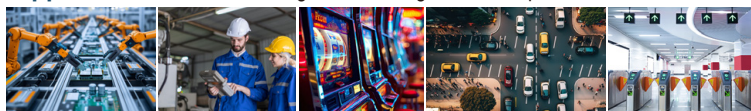


Dimensions



Application

- Manufacturing
- Gaming
- Transportation



Specifications

System	
CPU Support	Intel® 14th/13th/12th Gen. (Socket LGA1700) Core™ i9/i7/i5/i3 & Pentium®/Celeron® Processors
CPU List	Intel® Core™ i9-14900/T, 13900TE/E, 12900TE/E i7-14700/T, 13700TE/E, 12700TE/E i5-14500/T, 13500TE/E, 12500TE/E i3-14100/T, 13100TE/E, 12100TE/E Pentium® G7400TE/E Celeron® G6900TE/E (TDP 35W/65W)
Chipset	Intel® R680E/Q670E/H610E PCH
Memory	R680E: 4 x DDR5 UDIMM 4400MHz (ECC/non-ECC, up to 192GB) Q670E: 4 x DDR5 UDIMM 4400MHz (non-ECC, up to 192GB) H610E: 2 x DDR5 UDIMM 4400MHz (non-ECC, up to 96GB)
Storage	4 x SATA3.0 ports RAID 0/1/5 supported (R680E/Q670E only)
BIOS	AMI UEFI BIOS
TPM	TPM 2.0
Watchdog	1~255 seconds watchdog timer selectable
FAN	2 x System Fan (4-pin wafer with Smart Fan function) 1 x CPU Fan (4-pin wafer with Smart Fan function)
Power Supply	Flex ATX 20+4 pin
Dimensions	244 x 244 mm (9.6" x 9.6")
Certifications	CE, FCC
O.S. Support	Windows® 11 IoT Enterprise LTSC 2024 Windows® 10 IoT Enterprise LTSC 2021 Linux (Ubuntu 22.04 LTS)
I/O Ports	
USB	R680E/Q670E: 6 x USB 3.2 Gen2 (Rear I/O) 4 x USB 2.0 (Rear I/O) 2 x USB 3.2 Gen 2 (wafer) 2 x USB 2.0 (1 x USB 2.0 shared with M.2 E-Key slot) (wafer) H610E: 4 x USB 3.2 Gen1 (Rear I/O) 4 x USB 2.0 (Rear I/O) 2 x USB 2.0 (1 x USB 2.0 shared with M.2 E-Key slot) (wafer)
Serial Ports	6 x COM (wafer) COM1/2: RS-232/422/485, +5V/+12V selectable by jumper COM3/4/5/6: RS-232/422/485
Ethernet	R680E/Q670E: 3 x RJ-45 2.5GbE LAN ports (Rear I/O) H610E: 2 x RJ-45 2.5GbE LAN ports (Rear I/O) Wake-On-LAN/PXE supported
Digital I/O	1 x Digital I/O (8-in/8-out) (pin header)
I²C	1 x I²C (wafer)
Audio	1 x Mic-in 1 x Line-in 1 x Line-out (Rear I/O)
LPC	1 x LPC (2x5 pin header) for debug only.
Case Open	1 x Case Open Detection (wafer)
Expansion Slots	
PCIe	R680E/Q670E: 1 x PCIe x16 (Gen5) 2 x PCIe x4 (Gen4) 1 x PCIe x4 (Gen3) H610E: 1 x PCIe x16 (Gen5) 1 x PCIe x4 (Gen3)
M.2	R680E/Q670E 1 x M.2 2230 E key (PCIe x1 / USB 2.0) 1 x M.2 2242 B key (PCIe x2 / SATA 3.0) 1 x M.2 2280 B key (PCIe x2 / SATA 3.0) (M.2 B Key supports RAID 0/1) 1 x M.2 2280 M key slot (PCIe x4) H610E: 1 x M.2 2230 E key (PCIe x1 / USB 2.0)
Display	
Flexible Display	Quadruple independent displays supported
DisplayPort	3 x DisplayPort / up to 4096 x 2304 @60Hz (Rear I/O)
HDMI™	1 x HDMI™ / up to 4096 x 2160 @60Hz (Rear I/O)
eDP / LVDS	1 x eDP/LVDS (optional) (pin header) -eDP up to 3840 x 2160 @60Hz -LVDS up to 1920 x 1200 @60Hz
Environment	
Operating Temperature	0°C~60°C (32°F~140°F) @humidity 20%~90%
Storage Temperature	-40°C~85°C (-40°F~185°F) @humidity 20%~95%

* All information contained in this document is subject to change without prior notice. Please log on www.antcomputer.com to acquire latest information. For detail mechanics drawing, please contact our sales.