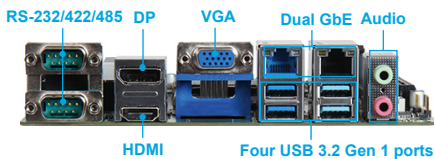# WADE-8212

WADE-8212 is based on Intel® Q470E chipset and the latest 10th Gen Intel® Core™ i3/i5/i7/i9 SKU. This board supports DDR4, PCIe 3.0, and SATA III. Those features help you build high performance and stable system.

FEATURES

- 10th Gen Intel® Core™ Processors with Q470E chipset
- Two SO-DIMMs support DDR4 Non-ECC DRAM up to 64GB
- Dual Ethernet, 5x COM Ports, 6x USB 3.2 Gen 1, 4x USB 2.0, 4x SATA III Ports and Audio
- One PCIe x16 Gen 3, 1x M.2 Key E, 1x M.2 Key M, 1x M.2 Key B
- Triple display: DP/VGA/LVDS/HDMI
- Onboard TPM 2.0

REAR I/O

RS-232/422/485   DP   VGA   Dual GbE   Audio

HDMI   Four USB 3.2 Gen 1 ports

ORDERING GUIDE

WADE-8212-Q470E	(R).WADE-8212-Q470E.Mini-ITX ESB.Q470E w/o ECC LGA1200.w/ DDR4 SO-DIMM /VGA/DP/HDMI/LVDS/ Dual GbE/COM/Audio/USB

GENERAL

Processor	10th Gen Intel® Core™ Processors CPU in LGA1200 package
Chipset	Intel® Q470E
BIOS	AMI UEFI BIOS
Memory	Up to 64GB DDR4 2400/2666 Non-ECC SDRAM on two SO-DIMM sockets
Storage Devices	4x SATAIII ports (6Gb/s)
Watchdog Timer	Programmable by embedded controller
Hardware Monitoring	System monitor(Voltage, Fan Speed and Temperature)
Expansion Interface	- 1x PCIe x16 Gen 3 - 1x M.2 Key E 2230 with PCIe x1, CNVI and USB2.0 for Wireless - 1x M.2 Key M 2242/2260/2280 with PCIe x4 and SATA3 for SSD - 1x M.2 Key B 3042/3052 with USB 3.0 Signal - 1x SIM Card socket

I/O INTERFACE

Super I/O	F81966D-I
Audio	Audio Jack on rear I/O with Line-out / Mic-in with Realtek ALC887 Audio controller
Ethernet	- Intel® I219LM and Intel® I225LM Ethernet controller - 2x RJ45 connectors on rear I/O
Serial Port	- 2x RS-232/422/485 port on rear I/O - 3x RS-232 port on board header
USB	- 4x USB 3.2 Gen 1 on rear I/O - 2x USB 3.2 Gen 1 on board header - 4x USB 2.0 on board header
GPIO	8-bit configurable controlled by embedded controller

DISPLAY

Graphic Controller	- Intel® UHD 630 Graphic engine supports DirectX 12, OpenGL 4.5
Display Interface	- 1x HDMI 2.0a on rear I/O, resolution up to 4096x2160 @60Hz - 1x DisplayPort 1.2 on rear I/O, resolution up to 4096x2160 @60Hz - 1x VGA on rear I/O, resolution up to 1920x1080 @60Hz - 1x LVDS connector on board, resolution up to 1920x1200 @60Hz

Mechanical & Environment

Dimension	170mm(L) x 170mm(W)
Power Input	ATX
Environment	- Operation temperature: 0~60˚C - Storage temperature: -20~80˚C - Relative humidity: 5~90% non-condensing