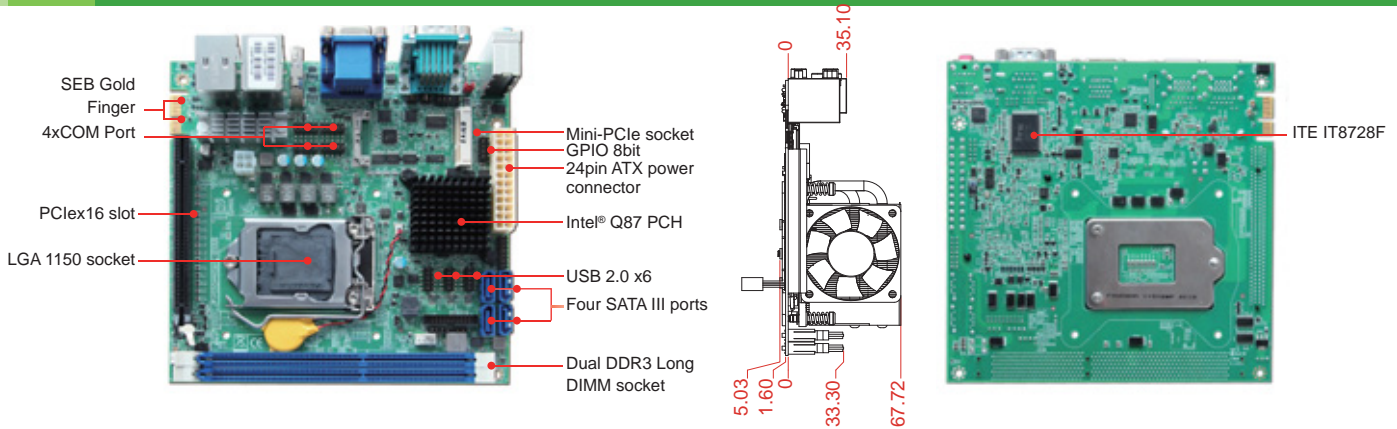


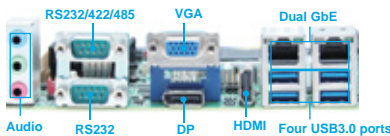
# WADE-8015

Intel® 4<sup>th</sup> Gen Core™ i5/i7 processor based Mini-ITX Board with dual Gigabit Ethernet, four SATA III ports, Six COM ports, one PCIe x16 expansion slot and one Mini-PCIe slot with mSATA interface



WADE-8015 is based on Intel® Q87 chip-set and desktop processor sku like Core™ i7 and i5. WADE-8015 of the Intel® platform will provide high performance and flexibility for functional expansion, such as Gaming, Kiosk, DS, Medical, Defense, Industrial automation and control applications.

## REAR I/O



## FEATURES

- Intel® i5/i7 4<sup>th</sup> Dual/Quad processor in LGA 1150
- Intel® Q87 PCH
- Two DDR3 Long-DIMM slots up to 16GB (support 1600/1333 )
- One PCIe x16 slot (Gen3 support)
- One Mini-PCIe slot (support mSATA)
- One PCIe x1 Gold Finger (2\*PCIe x1 signal)
- Audio Jack (support Line-in / Line-out / Mic-in)
- Six COM ports (2pcs on rear I/O ,4pcs on board header)
- Four SATA III Ports (support RAID 0,1,5,10)
- Total Ten USB ports (4xUSB3.0 Ports & 6xUSB2.0 Ports)
- Support Triple Display function (DP/VGA/HDMI)

## ORDERING GUIDE

<b>AB1-3910</b>	(R).WADE-8015.Mini-ITX ESB.Q87 w/o ECC LGA1150.w/DDR3 SDRAM /VGA/DP/HDMI/ Dual GbE/COM/Audio/USB
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## PACKING LIST

One WADE-8015 Mini-ITX Motherboard
One installation DVD
One SATA III cable
One I/O shield

## GENERAL

Processor	- Intel® 4 <sup>th</sup> Gen Core™ i5/i7 processor in LGA-1150 package - DMI x4 Link: 5.0GT/s - Support Intel® Turbo Boost, Hyper-Threading, Virtualization, Thermal Monitoring, Trusted Execution and SpeedStep Technology (depends on CPU sku)
Chipset	- Intel® Q87 PCH
BIOS	- Phoenix UEFI BIOS
Memory	- Support up to 16GB DDR3 1333/1600 SDRAM on two 240-pin DIMM sockets
Storage Devices	- 4x SATA III support up to 6.0 Gb/s data transfer rate
Watchdog Timer	- Programmable via S/W from 0.5 sec. to 254.5 sec.
Hardware Monitoring	- FAN Speed (CPU & System), Temperature (CPU & System) - Beep alarms for field fan out, over/under voltage of DC voltages and over temperature threshold
Expansion Interface	- 1x PCI Express x16 Gen3 up to 8.0 GT/s - 1x Mini-PCIe slot - 1x PCI Express x1 Gold Finger

## I/O INTERFACE

Super I/O	- ITE IT8728F
Audio	- Intel® Q87 PCH built-in High Definition Audio up to 192-kHz 32-bit - Realtek ALC886-GR HDA codec, 5.1 channels
Ethernet	- Intel® WGI217LM + WGI210AT gigabit ethernet controller - Dual 10BASE-T / 100BASE-TX / 1000BASE-T Ethernet - PCI Express x1 interface based on gigabit ethernet - Dual RJ-45 connector with two LED indicators
Serial Port	- 1x RS232 port on rear I/O - 1x RS232/422/485 selectable port on rear I/O - 3x RS232 with header - 1x RS232/422/485 with header
USB	- 4x USB3.0 Ports on rear I/O - 6x USB2.0 Ports on board
Keyboard & Mouse	- PS/2 on board dedicated to Keyboard & Mouse
GPIO	On board programmable 8bit Digital I/O

## DISPLAY

Graphic Controller	- Intel® Core™ i5/i7 processors integrated graphic engine - Provided improved 3D multimedia capabilities including Microsoft DirectX 11.1, Shader Model 4.0, MPEG-2 and OpenGL 3.2
Display Interface	- VGA: one connector DB-15 on rear I/O, analog resolution up to 1920x1200 - DP : one connector on rear I/O, support up to 3200x2000 resolution - HDMI : one connector on rear I/O, support up to 4096x2304 resolution

## Mechanical & Environment

Dimension	-170(L) x 170mm(W); 6.69"(L) x 6.69"(W)
Power Supply	- ATX 24-pin power input
Environment	- Operation Temperature: 0~60 °C - Storage Temperature: -20~80 °C - Relative Humidity: 5~90%, non-condensing
MTBF	Over 120,000 hours at 40°C

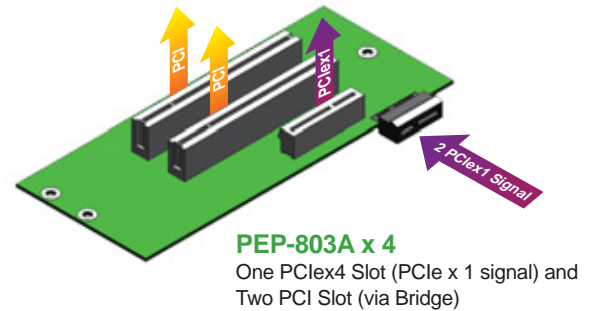
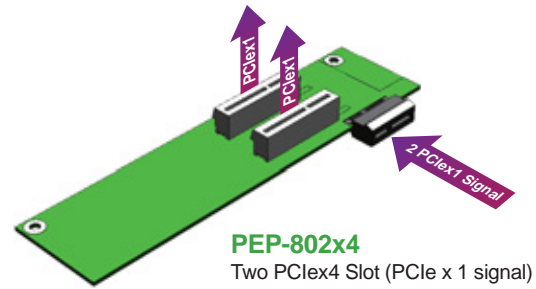




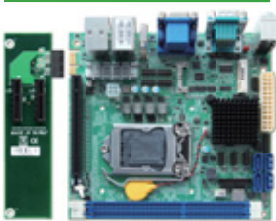
### What is side expansion board?

WADE-8015 has one PCIe1 gold finger. This special gold finger is re-defined PCIe1 pin definition, and we put two PCIe1 signal inside. Portwell created a new daughter board from the side to combination, we call it SEB(side expansion board)

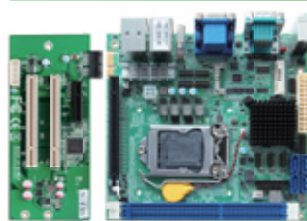
Bridging PCIe signals through the Gold Finger to the extension board, WADE-8015 can easily support the functions on a two-slot-added Flex-ATX or three-slot-added Micro ATX motherboard. This expansion mechanism also supports other interfaces transmitted via specific circuit design and component selection. Therefore, Portwell can quickly make ready a customized solution with additional, project-required features, such as LAN, Mini-PCIe, etc.



### Flex-ATX



### Micro-ATX



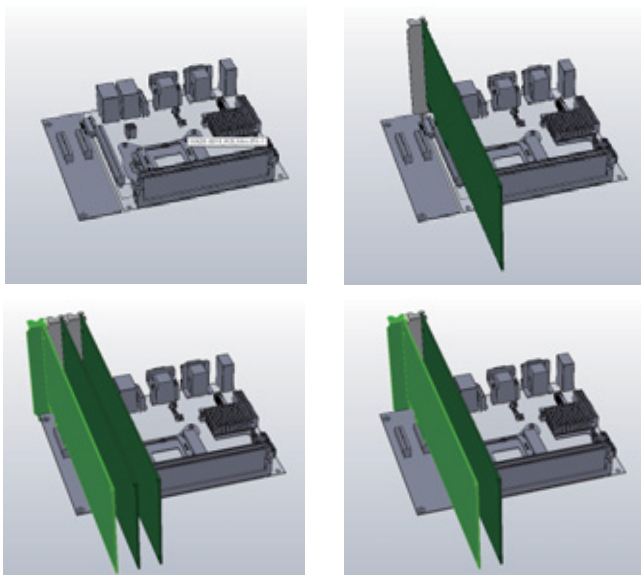
\* Meet Flex-ATX or Micro-ATX Form Factor Scope

## Side Expansion Board (SEB)

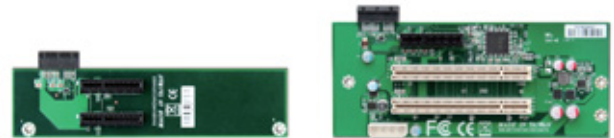
### Flexibility of Side Expansion Board

- PCIe x1 Gold-Finger (Two PCIe x1 signal)
- Meet Flex-ATX/Micro-ATX scope, provide 2 or 3 slot

### SEB Concept



Portwell's WADE-8015, featuring flexible expansion interface, provides a brand-new solution under available resources and limited mainboard space. Different from existing Mini-ITX boards in the marketplace, which utilize a riser card to increase functional interfaces or additional PCIe/PCI slots, the Portwell WADE-8015 leverages an extension board to furnish a flexible platform that facilitates multiple functional expansion choices.



### ORDERING GUIDE

<b>AA1-3134Z</b>	(R) PEP-802X4. 2 Slot Risr Card for two PCIe4 for WADE-8015 series
<b>AA1-3141Z</b>	(R) PEP-803AX4. 3 Slot Risr Card for one. PCIe4 and two PCI for WADE-8015 series