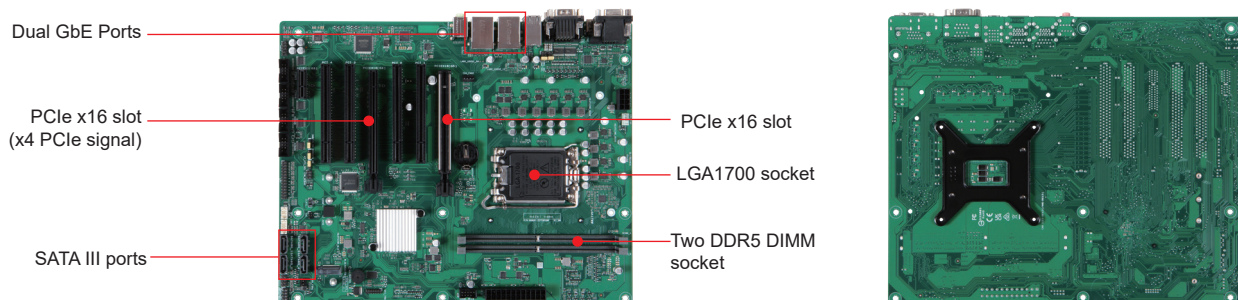


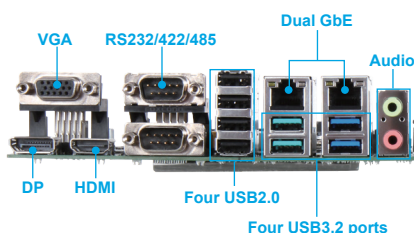
RUBY-D813-H610E-D5



FEATURES

- Intel® 12th/13th/14th Gen Core™ Processors CPU in LGA1700 package
- Two U-DIMM support DDR5 Non-ECC DRAM up to 96GB
- Support dual Ethernet, 6x COM Ports, 4x USB 3.2 Ports, 4x SATA III Ports and Audio
- Two PCIe x16 (1x PCIe x4 signal), one PCIe x1 slot, four PCI slots
- One M.2 (Type M) type 2242/2260/2280

REAR I/O



General

Processor	12/13/14 th Generation Intel® Core™ i3/i5/i7/i9 Processors, LGA 1700 socket
Chipset	Intel® H610E
BIOS	AMI uEFI BIOS
Memory	Support up to 96GB DDR5 5600 MT/s on 2 non-ECC UDIMM
Storage	4 x SATA Ports
Watchdog Timer	Programmable, time out period from 1 s to 255 s
Graphic Controller	Intel® UHD Graphics

Rear I/O

Audio	1 x Audio Jack Line-out w/ Realtek ALC897 1 x Audio Jack Mic-in w/ Realtek ALC897
Ethernet	1 x Intel I219V with GbE LAN 10/100/1000 Mbps 1 x Intel I210AT with GbE LAN 10/100/1000 Mbps
Serial Port	2 x COM Ports Support RS-232/422/485
USB	2 x USB 3.2 Gen2 Type A 2 x USB 3.2 Gen1 Type A 4 x USB 2.0 Type A
Display	1 x HDMI® 2.0 1 x DP 1.2 1 x VGA

Expansion I/O

PCIe	1 x PCIe Gen5 x16 1 x PCIe Gen3 x16 (x 4 signal) 1 x PCIe Gen3 x1
PCI	4 x PCI
Serial Port	4 x Pin Header support RS-232
USB	1 x USB 2.0 Pin Header
M.2	1 x M.2 M Key 2242 2260 2280 support PCIe x1/ SATA
Security	TPM SPI header
GPIO	1 x 8-bit Digital I/Os

Ordering Guide

Category	ATX
P/N	AB1-3U27
Product	RUBY-D813-H610E-D5
Description	(R).RUBY-D813-H610E-D5.ATX.IMB.LGA1700.CPU. H610E.w/DDR5/VGA/DP/HDMI®/Dual GbE/COM/Audio/USB

Mechanical/Environment

Dimension	305 x 244 mm (12.00" x 9.61")
Power Supply	AT mode/ ATX mode
Operating Temperature	0 ~ 60 °C (32.0 ~ 140.0 °F)
Storage Temperature	-40 ~ 85 °C (-40.0 ~ 185.0 °F)
Relative Humidity	10% to 95%, non-condensing
Certification	CE/FCC
OS	Windows 11 IoT Enterprise 2024 LTSC, Windows 10 IoT Enterprise 2021 LTSC, Ubuntu 24.04, RedHat Enterprise, Fedora Workstation, OpenSUSE
Portwell Special Feature	PET