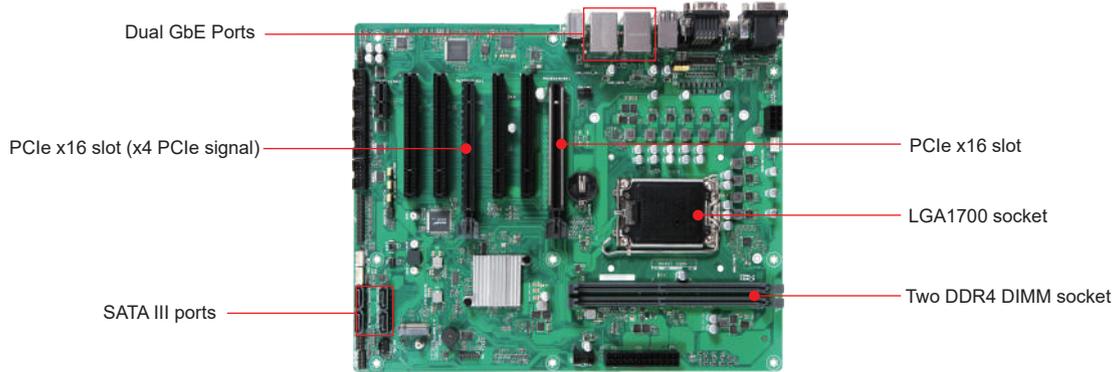


RUBY-D813-H610E

Support Desktop Intel® 12th/13th/14th Gen Core™ Processors ATX with DDR4 Long-DIMM up to 64Gb,VGA,DP,HDMI,Dual GbE LAN, Six COM Ports



The RUBY-D813-H610E is an industrial ATX motherboard based on the 14th/13th/12th Gen Intel® Core™ processors and the Intel® H610E chipset, and featuring advanced connectivity interfaces, rich I/O capabilities, and flexible customization options. Supporting multiple display interfaces, legacy options for industrial applications, GPIO ports, dual LAN (1x Intel® I219V, 1x Intel® I210AT), as well as rich expandability including PCIe slots, M.2 M key and multi COM ports, the RUBY-D813-H610E offers great reliability, expandability and high performance computing for an extensive range of industrial applications.

FEATURES

- 12th/13th/14th Gen Intel® Core™ Processors
- Two Long-DIMM support DDR4 Non-ECC DRAM up to 64GB
- 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 and one M.2 (M key) size 2242/2260/2280

REAR I/O



ORDERING GUIDE

AB1-3P61	(R).RUBY-D813-H610E.ATX IMB.LGA1700 H610E. w/DDR4/VGA/DP/HDMI/Dual GbE /COM/Audio/USB
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PACKING LIST

One RUBY-D813-H610E Main board
One I/O shield
One SATA cable
One CPU cooler bracket

GENERAL

Processor	12 th /13 th /14 th Gen Intel® Core™ Processors in LGA1700 package
Chipset	Intel® H610E
BIOS	AMI uEFI BIOS
Memory	Support up to 64GB DDR4 up to 3200MHz Non-ECC on two Long-DIMM socket
Storage Devices	4x SATAIII ports
Watchdog Timer	Programmable watchdog timer, time out period from 1 sec to 255 secs
Hardware Monitoring	System monitor(Voltage,Fan Speed and Temperature)
Expansion Interface	- 2x PCIe x16 (1x PCIe x4 signal) - 1x PCIe x1 slot - 4x PCI slots - 1x M.2 (Type M) type 2242/2260/2280 (SATA/PCIe x1 mode)

I/O INTERFACE

Super I/O	Nuvoton NCT6126D
Audio	Audio Jack on rear I/O with Line-out / Mic-in with Realtek ALC897 Audio controller
Ethernet	Intel® I219V and Intel® I210AT Ethernet controller 2x RJ45 connectors on rear I/O
Serial Port	- 2x RS232/422/485 port one on REAR I/O, one on board header - 4x RS232 port on pin header
USB	- 2x USB3.2 Gen2, 2x USB3.2 Gen1, and 4x USB 2.0 ports on rear I/O - 2x USB2.0 on pin header
GPIO	8-bit configurable controlled by embedded controller

DISPLAY

Graphic Controller	Intel® graphic UHD 630 supports DirectX 12, OpenGL 4.5
Display Interface	- DP: DP port on rear I/O, resolution up to 4096x2160 - VGA: One VGA port on rear I/O resolution up to 1920x1200 - HDMI: One HDMI connector on rear I/O, resolution up to 4096x2160

Mechanical & Environment

Dimension	304.8mm(L) x 243.8mm(W) x 1.6mm(H)
Power Supply	ATX power input
Environment	- Operation Temperature: 0°C to 60°C - Storage Temperature: -20°C to 80°C - Relative Humidity: 5% to 95%, non-condensing
MTBF	Over 100,000 hours at 40°C



*All information provided is subject to change without notice. Last updated: October 16, 2025