

Features

- Intel 12/13/14th LGA1700 i3/i5/i7/i9 processor
- Intel Alder Lake PCH-S H610 Chipset
- 2 x DDR4-3200MHz Non-ECC U-DIMM, up to 64GB
- Support displays for VGA, HDMI, DVI-D, eDP
- Support 1 x PCI-E x16 Slot, 3 x PCI-E x4 Slot, 3 x PCI Slot
- 3 x SATA 3.0 + 1 x M.2
- 1 x Intel I225-V GbE, 1 x I219-V Gigabit Ethernet
- 4 x USB3.0, 6 x USB2.0, 6 x COM



Core System

CPU	Intel 12/13/14th LGA1700 Socket Processor Support Max CPU TDP: 8 + 4 core 65W
System Memory	2 x DDR4-3200MHz Non-ECC U-DIMM, up to 64GB
Chipset	Intel H610, TDP 6W
BIOS	AMI
Storage	3 x SATA 3.0 1 x M.2 Key-M (PCIe 2x/SATA, Default SATA 2242/2280)
Watchdog Timer	1 - 255 steps by software program
Expansion Slot	1 x PCI-E x16 Slot (1 x PCIe x16 Gen.4) 2 x PCI-E x4 Slot (PCIe x2 Gen.3) 1 x PCI-E x4 Slot (PCIe x2 Gen.3, PCIe x4 slot3 co-lay M.2 PCIe SSD, BOM select) 3 x PCI Slot 1 x PCI CLK 66MHz Enable/Disable Select Jumper)
Power Input	ATX Standard (24P + 8P) 1 x ATX 8P CPU Power Input Connector 1 x ATX 24P Power Input Connector
Smart Fan Control	CPU Fan / System Fan
Dimensions	305 x 220 mm
Operating Temperature	0°C to +60°C (+32°F to +140°F)
Storage Temperature	-20°C to +70°C (-4°F to +158°F)
Humidity	10% to 95% relative humidity, non-condensing

Rear I/O

USB	4 x USB 3.0 2 x USB 2.0
Display I/O	1 x DVI 1 x HDMI 1 x VGA
Audio I/O	Line-Out + MIC + Line-In
LAN I/O	1 x Intel I226-V GbE, 1 x I219-V Gigabit Ethernet
Serial Port	1 x RS-232
PS/2 Port	1 x PS/2
Others	-

Internal Connectors

USB	4 x USB 2.0
Display I/O	1 x eDP header
Audio I/O	Realtek Audio HDA Codec, with MIC/Line-out/Line-in
Serial Port	3 x RS-232, 2 x RS-232/485
Parallel Port	-
GPIO	1 x GPIO Header (Programmable support 8-bit GPIO)
FAN	1 x 4-pin CPU Fan Header / 2 x 4-pin System Fan Header
Power	1 x ATX Standard
Others	1 x SMBUS Header, 1 x Front Panel Header, 2 x System FAN Header, 1 x CPU Fan Header, 1 x CMOS Clear Jumper, 1 x AT or ATX Select Jumper, 1 x ME Flash Header, 1 x Power monitor wafer

Graphics

Chipset	Intel UHD Graphics
VGA	Up to 1920 x 1200 @ 60Hz
DVI	Up to 1920 x 1200 @ 60Hz
HDMI	Up to 4096 x 2160 @ 30Hz
Display Port	-
LVDS	-
eDP (Header)	Up to 4096 x 2304 @ 60Hz

Others

OS Support	Windows 10, Windows 11, Linux
Certifications	CE / FCC Class B