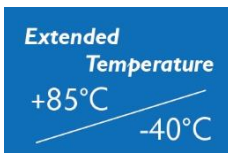
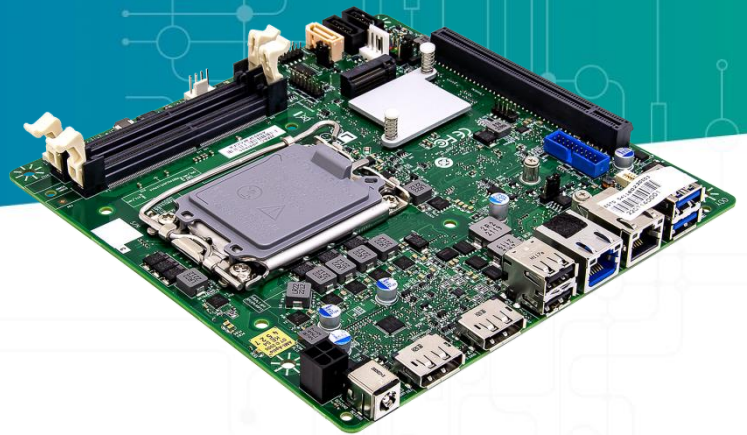


Mini-ITX Form Factor Intel® 13/12th Gen. Core™ i9/ i7/ i5 / i3 processors



- Support Intel® 13/12th Core™ i9/ i7/i5/i3 Alder Lake-S LGA1700 35W/65W Socket Processor
- Intel® Q670/H610 Chipset
- 2 x DDR4 SO-DIMM up to 64GB
- 2 x USB3.1 ; 2 x USB3.0 ; 4 x USB2.0
- Support dual display for 2 x DP
- 1 x M.2 M-Key 2280 ; 1 x PCIe 4.0 x16
- 2 x SATAIII
- 1 x 2.5GbE + 1 x GbE LAN
- DC-IN 12V
- Operating Temperature : ET : -20°C ~ 70°C ; UT : -40°C ~ 85°C

Specifications

SYSTEM

CPU	13/12th Gen Intel® Alder Lake LGA1700 Socket Processor / Core i9/i7/i5/i3 Processor, TDP 35/65W
Memory type	DDR4 3200 MHz / 2 x 262-pin SO-DIMM / Max. 64GB (Non-ECC) Vertical
Chipset	Intel® H610/Q670
I/O Chipset	Nuvoton NCT6126D
TPM	TPM Header
H / W Monitor	Temperature Monitor, Voltage Monitor, Fan Monitor
Watchdog	1-255 sec. or 1-255 min. software programmable and can be generate system reset
Smart Fan Control	CPU FAN / System FAN
BIOS	AMI BIOS

EXPANSION SLOT

M.2	1 x M.2 2280M-Key (PCIe3.0 X4, SATAIII)
PCIe Slot	1 x PCIe 4.0 X16 slot

DISPLAY

Chipset	Intel® UHD Graphics 770
Display Port	Up to 4K (4096 x 2304) @60 Hz
2 nd Display Port	Up to 4K (4096 x 2304) @60 Hz

ETHERNET

Chipset	Intel® I219-LM GbE LAN + Intel® I225V 2.5 GbE LAN
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REAR IO

USB	2 x USB3.1 ; 2 x USB2.0
Display port	2 x DP
LAN	2(1 x GbE ; 1 x 2.5GbE)

INTERNAL

I/O

SATAIII	2
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USB3.1	2
USB2.0	5
Display I/O	1 x LVDS 1 x Backlight connector
Serial	2 (1 x Support RS-232/422/485)
FAN	1 x 4-pin CPU Fan Connector / 1 x 4-pin System Fan Header
Power	1 x 12V DC IN Jack(Colay 19V) 1 x ATX 4pin (AT/ATX mode by jumper setting)
Others	1 x Front Audio Header (Mic-in / Line-out), 1 x CMOS Jumper, 1 x panel power select header, 1 x SATA power, 1 x FIO header, 1 x intrusion switch header

MECHANICAL AND ENVIRONMENTAL

Form Factor	Mini ITX
Power Type	12V DC-IN
Dimension	170mm x 170mm
Operating Temperature	ET : -20°C ~ 70°C UT : -40°C ~ 85°C
Storage Temperature	-40°C ~ 85°C
Relative humidity	10% to 95%, non-condensing

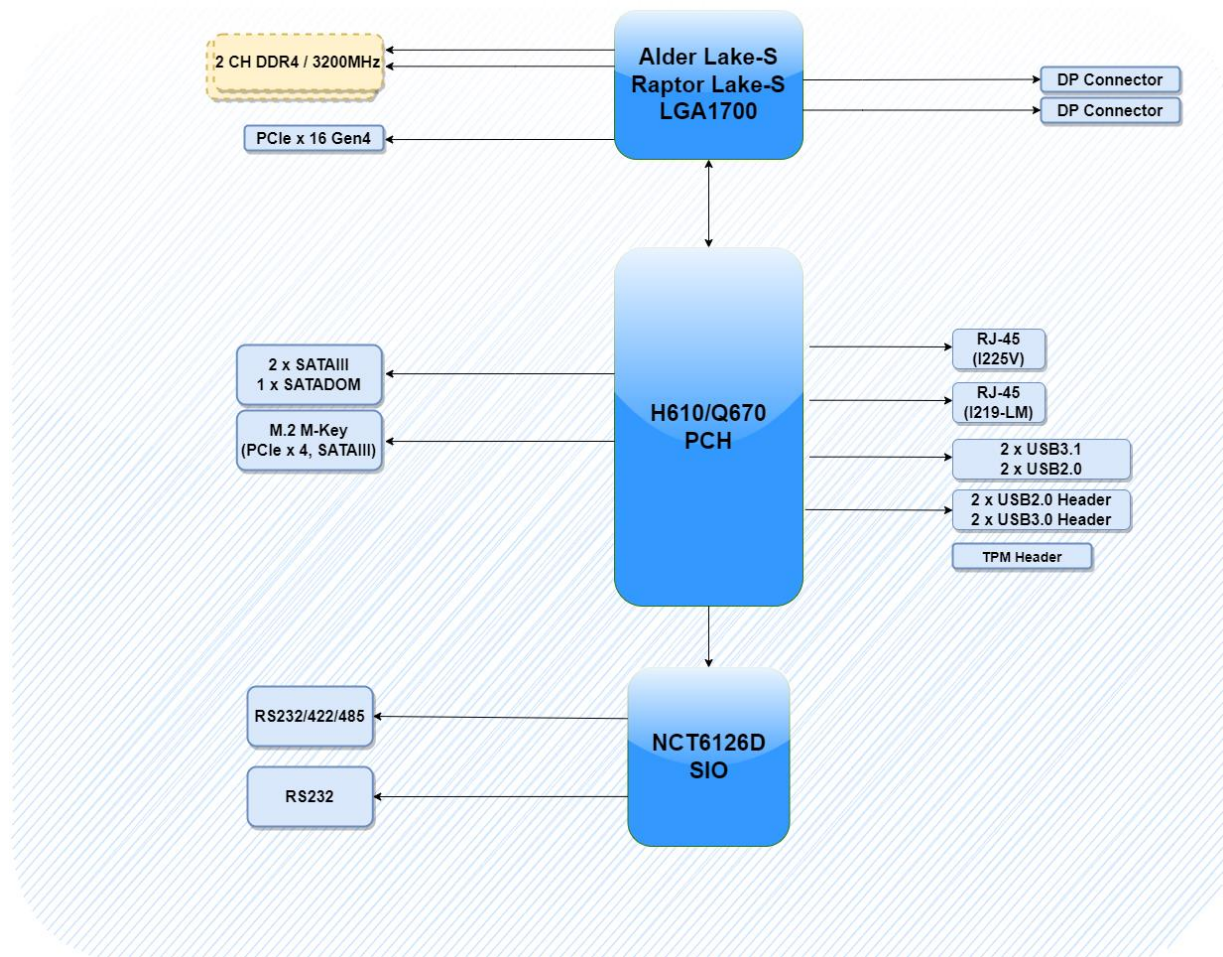
STANDARD COMPLIANCE

Standard Compliance	CE/FCC
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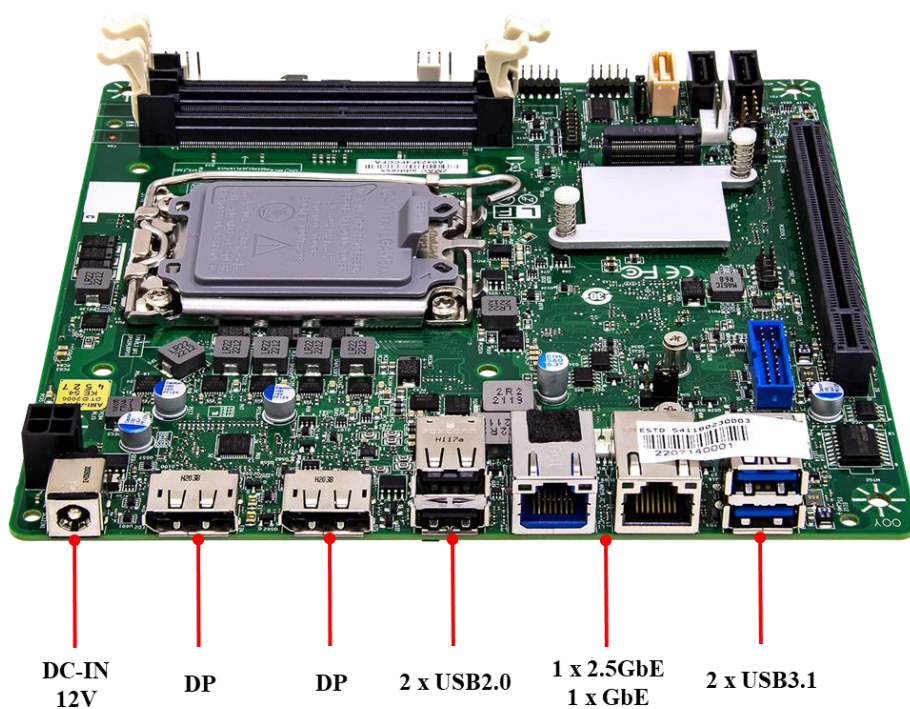
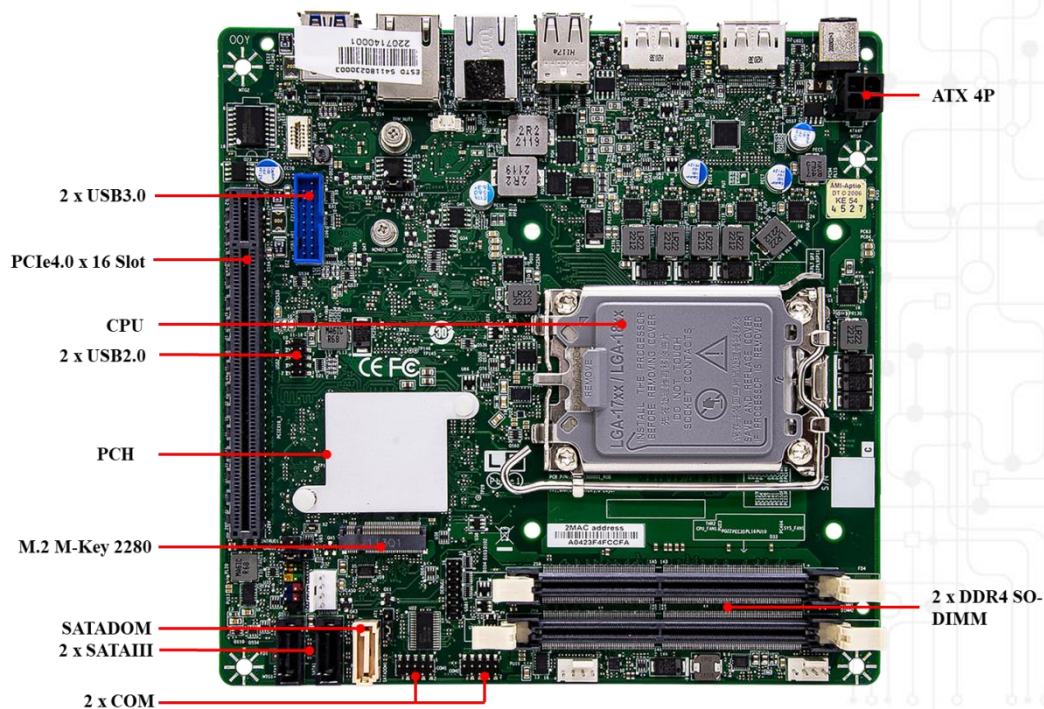
OS

OS Support	Windows® 10 64-bit Linux(Support by request)
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Block Diagram



Board Placement



Ordering Information

Model	Description
INS8367A-01ET	Intel 13/12th Gen. Raptor / Alder Lake-S Core i9/i7/i5/i3, DDR4 SO-DIMM up to 64GB Chipset H610, M.2 expansion slots : M.2 M-Key 2280, 1 x PCIe4.0 x16 Slot, 2 x SATAIII, 1 x SATADOM, 2 x USB3.1, 2 x USB3.0, 4 x USB2.0, DC-IN 12V, Extended Temp. -20 to 70°C
INS8367A-01UT	Intel 13/12th Gen. Raptor / Alder Lake-S Core i9/i7/i5/i3, DDR4 SO-DIMM up to 64GB Chipset H610, M.2 expansion slots : M.2 M-Key 2280, 1 x PCIe4.0 x16 Slot, 2 x SATAIII, 1 x SATADOM, 2 x USB3.1, 2 x USB3.0, 4 x USB2.0, DC-IN 12V, Extended Temp. -40 to 85°C
INS8367A-02ET	Intel 13/12th Gen. Raptor / Alder Lake-S Core i9/i7/i5/i3, DDR4 SO-DIMM up to 64GB Chipset Q670, M.2 expansion slots : M.2 M-Key 2280, 1 x PCIe4.0 x16 Slot, 2 x SATAIII, 1 x SATADOM, 2 x USB3.1, 2 x USB3.0, 4 x USB2.0, DC-IN 12V, Extended Temp. -20 to 70°C
INS8367A-02UT	Intel 13/12th Gen. Raptor / Alder Lake-S Core i9/i7/i5/i3, DDR4 SO-DIMM up to 64GB Chipset Q670, M.2 expansion slots : M.2 M-Key 2280, 1 x PCIe4.0 x16 Slot, 2 x SATAIII, 1 x SATADOM, 2 x USB3.1, 2 x USB3.0, 4 x USB2.0, DC-IN 12V, Extended Temp. -40 to 85°C