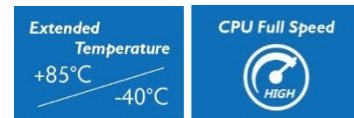
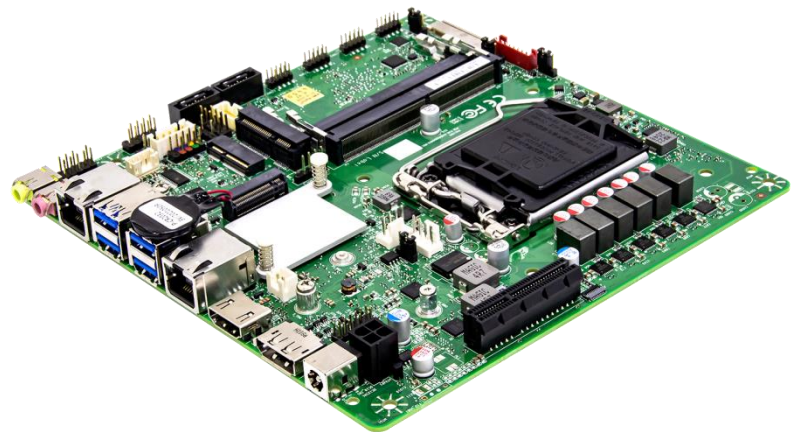




# INS8366A

Mini-ITX Form Factor Intel® 10th Gen. Core™  
i9/ i7/ i5 / i3 processors



- Support Intel® 10th Core™ i9/ i7/i5/i3 Comet Lake-S LGA1200 35W/65W Socket Processor
- Intel® H410 Chipset
- Intel® vPro technology support (Q470E)
- 2 x DDR4 SO-DIMM up to 64GB
- Support triple display for HDMI, DisplayPort and LVDS/eDP
- 1 x M.2 2280M-key (NVME), 1 x M.2 2230 E-key (CNVi), 1 x mPCIe Full size, 1 x PCIe X4
- 2 x Intel® Gigabit Ethernet
- 2 x SATAIII, 4 x USB3.1, 6 x USB2.0, 4 x COM(1 x support RS232/422/485)
- DC-IN 12V / (Optional : 19V)
- Operating Temperature : ET : -20°C ~ 70°C ; UT : -40°C ~ 85°C

# Specifications

## System

CPU	10th Gen Intel® Comet Lake LGA1200 Socket Processor / Core i9/i7/i5/i3 Processor, TDP 35/65W
Memory type	DDR4 2933 MHz / 2 x 260-pin SO-DIMM / Max. 64GB (Non-ECC) Horizontal
Chipset	Intel® H410
BIOS Core	Nuvoton NCT6126D
BIOS Flash	TPM Header
Super I/O	Temperature Monitor, Voltage Monitor, Fan Monitor
TPM	1-255 sec. or 1-255 min. software programmable and can be generate system reset
iAMT	CPU FAN / System FAN
Watchdog	AMI BIOS

## Expansion Slot

M.2	1 x M.2 2242 / 2280 M key (Gen3 PCIe X4, SATA) 1 x M.2 2230 E key (PCIe, USB 2.0)
Mini PCIe	1 x Mini PCIe Full size (USB / SATA)
PCIe Slot	1 x PCIe3.0 X4 slot

## Display

Chipset	Intel® HD Graphics
HDMI	Up to 4K (4096 x 2160) @30 Hz
Display Port	Up to 4K (4096 x 2304) @60 Hz
LVDS	Up to 1920 x 1200 @60 Hz
eDP (Option)	Up to 4K (4096 x 2304) @60 Hz

## Ethernet

Chipset	Intel® I219-LM Giga LAN + Intel® I211-AT Giga LAN
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## Audio

Codec	Realtek® ALC662/ALC888
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## Rear I/O

USB3.1	4
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Display port	1 x DP ; 1 x HDMI
LAN	2
AUDIO	1 x MIC-IN ; 1 x LINE-OUT

## Internal I/O

SATAIII	2
USB	5 x USB2.0 (1 x USB share mPCIe)
Display I/O	1 x LVDS(optional eDP SKU) 1 x Backlight connector
Audio	1 x Stereo Speaker Header
GPIO	1 x MiAPI Header
Serial	4 (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, 1x buzzer header, 1x Digital MIC

## Mechanical and Environmental

Form Factor	Mini ITX
Power Type	DC-IN 12V(Optional : 19V)
Dimension	170 mm x 170mm
Operating Temp.	ET : -20 to 70°C UT : -40 to 85°C
Storage Temp.	-40 to 85°C
Relative humidity	10% to 90%, non-condensing

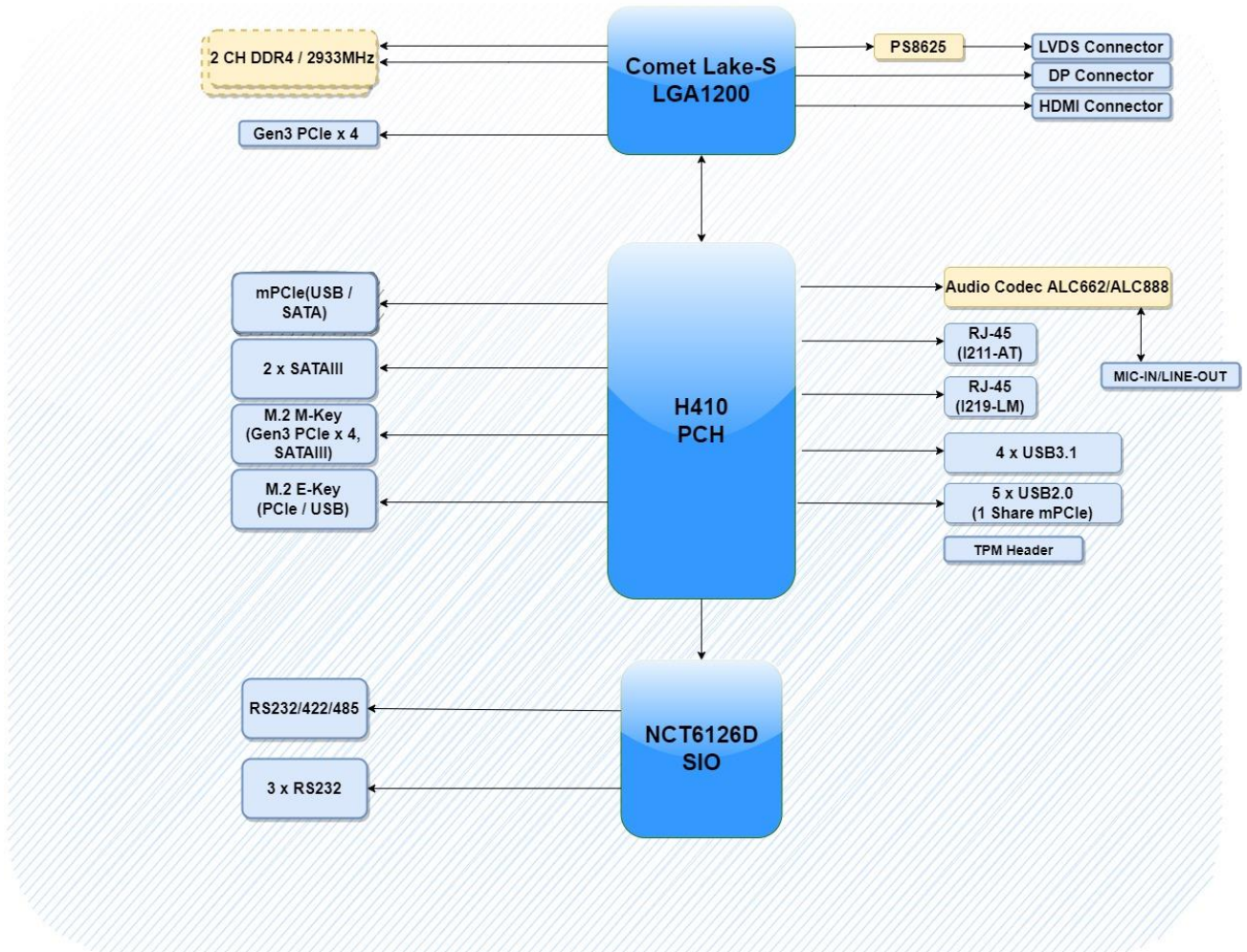
## Standard Compliance

Standard Compliance	CE/FCC
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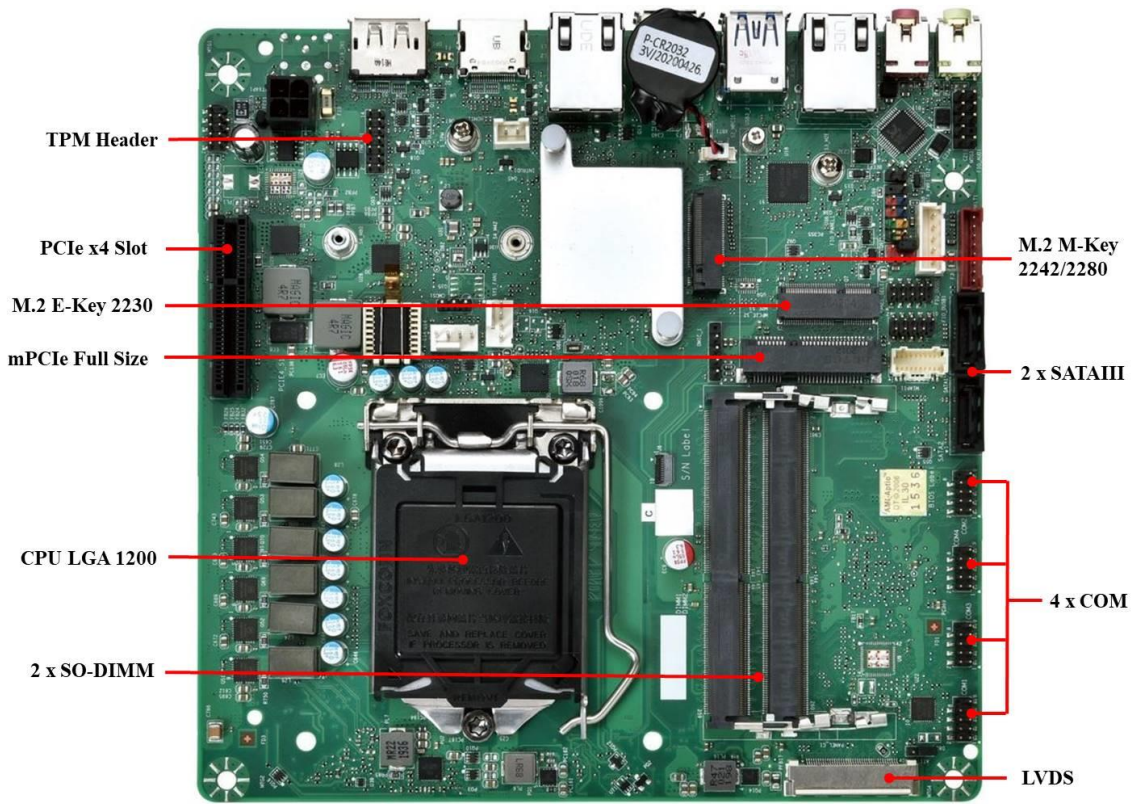
## OS

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



# Board Placement



## Ordering Information

Model	CPU	PCH	Expansion	USB3.1/2.0	System Power Input	Operation Temp.
INS8366A-01ET	10 <sup>th</sup> LGA 1200 (Up to 65W)	H410	1 x M.2 M-Key 2242/2280  1 x M.2 E-Key 2230 1 x mPCIe Full Size  1 x PCIe4 Slot	4/5	DC 12V	-20 to 70°C
INS8366A-01UT						-40 to 85°C
INS8366A-02ET (Optional)					DC 19V	-20 to 70°C
INS8366A-02UT (Optional)						-40 to 85°C