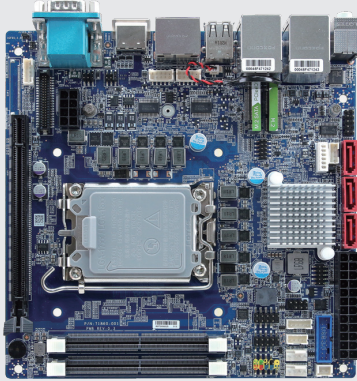


MX610H

12/13/14th Gen. Intel® Core™ i9/i7/i5/i3 Processors,
Mini ITX Motherboard With Intel® H610E Chipset



Features

- 12/13/14th Gen. Intel® Core™ i9/i7/i5/i3/Pentium/Celeron Processor with Intel® H610E Chipset
- 2 x SODIMM Sockets Support DDR5 4800 MHz Up to 64GB
- HDMI, 2 x DP++, LVDS/eDP
- 1 x PCIe x16 (Gen4)
- 1 x Intel® I219LM, 1 x Intel® i226V
- 6 x USB 3.2 Gen 1x1, 6 x USB 2.0
- 1 x M.2 M-Key 2242/2280, 1 x M.2 E-Key 2230
- 3 x COM
- ATX Power



Specifications

System Information

Processor	LGA 1700 Socket Supports 12/13/14th Generation Intel® Core™ i9/i7/i5/i3/Pentium/Celeron Processors (Max. TDP at 65W)
Platform Controller Hub	Intel® H610E Chipset
System Memory	2 x 262-Pin DDR5 4800MHz SO-DIMM Socket Supports Up to 64GB (ECC Memory Support by CPU)
I/O Chipset	nuvoton NCT6126D
Watchdog Timer	H/W Reset, 5-255 Seconds/5-255 Minutes
BIOS	AMI uEFI BIOS, 256Mbit SPI Flash ROM
H/W Status Monitor	CPU Temperature Monitoring Voltage Monitoring CPU Fan Speed Control
TPM	Onboard infineon SLB 9670VQ2.0 support TPM2.0
Board	Mini ITX

Expansion

Expansion	1 x PCIe x16 (Gen4) 1 x M.2 M-Key 2242/2280 NVMe (PCIe x4 + SATA III) 1 x M.2 E-Key 2230 with CNVi Support (PCIe x1 + USB 2.0)
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Display

Graphic Chipset	Intel® Integrated UHD Graphic with Xe Architecture (CPU Dependent)
Spec. & Resolution	1 x HDMI 1.4b 4K@60Hz 1 x Dual Mode DisplayPort (DP++) 1.4a 4K@60Hz Dual Channel 18/24-bits LVDS, Optional eDP
Multiple Display	Triple Display
LVDS	Dual Channel 18/24-bits LVDS, eDP By BOM Optional

Audio

Audio Codec	Realtek ALC897 HD Audio Decoding Controller
Audio Interface	Mic-in, Line-out
Audio Amplifier	2 x 3W 8Ω Amplifier

Ethernet

LAN Chipset	1 x Intel® I219LM Gigabit Ethernet PHY 1 x Intel® i226V 2.5 Gigabit Ethernet
Ethernet Interface	10/100/1000 Base-Tx GbE compatible & 2.5 Gigabit Ethernet
LAN Port	2 x RJ-45

Software Support

OS	Windows 11, Linux
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Certification

Certification Information CE, FCC, RoHS Compliant

I/O

USB	4 x USB 3.2 Gen1x1 2 x USB 2.0 Type-A 2 x USB 3.2 Gen1x1 by pin header 4 x USB 2.0 by pin header
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COM Port	1 x RS-232 2 x RS-232/422/485
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SATA	2 x SATA III
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DIO	1 x 8-bit GPIO
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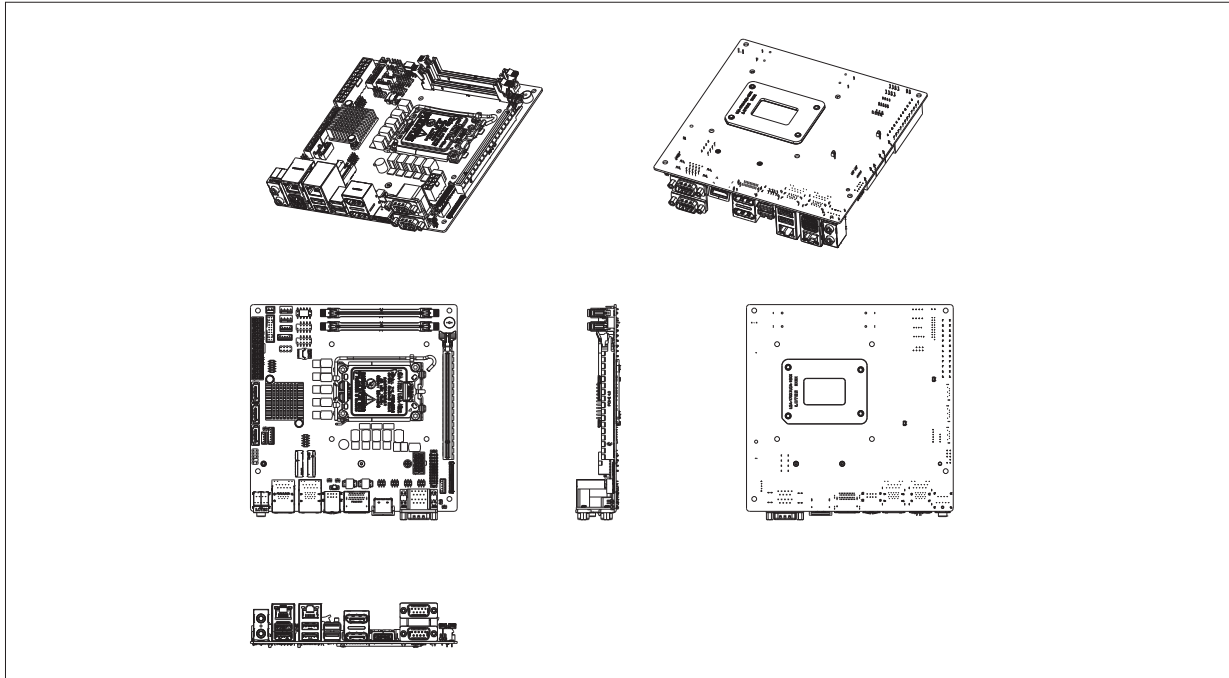
Mechanical & Environmental

Operating Temp.	0°C to 60°C (32°F ~ 140°F)
Storage Temp.	-20° C ~ 80° C (-4°F ~ 176°F)
Operating Humidity	5% to 90% Non-condensing
Weight	0.88lbs (0.4Kgs)
Power Requirement	+12V/+5V/5VSB/+3.3V/-12V
Power Mode	AT/ATX (Default Setting: ATX)
Dimension (L x W)	6.7" x 6.7" (170mm x 170mm)

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Mini ITX Motherboard With Intel® H610E Chipset

Mechanical Drawing



Ordering Information

P/N	Processor	Chipset	LAN	USB	COM	PCIe Slot	Power Input	Temp.
MX610H 71862-1A	12th/13th/14th Gen. Intel® Core™ i9/i7/i5/i3 Processors, LGA 1700 Socket, 65W TDP	Intel® H610E	2	12	4	1	ATX Power	0°C – 60°C (32–140°F)

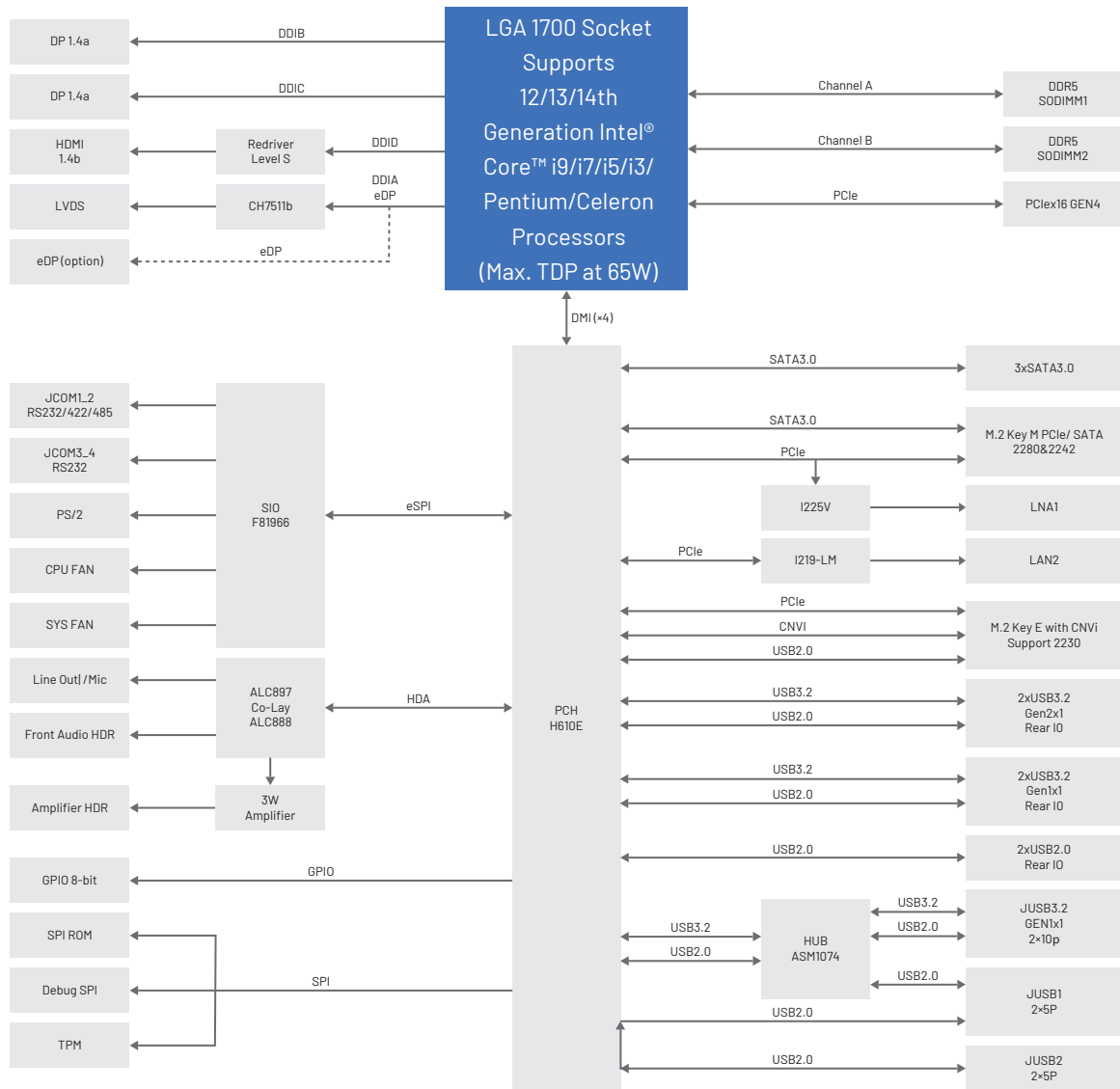
Packing List

Item	P/N	Quantity
IO Shield	-	1

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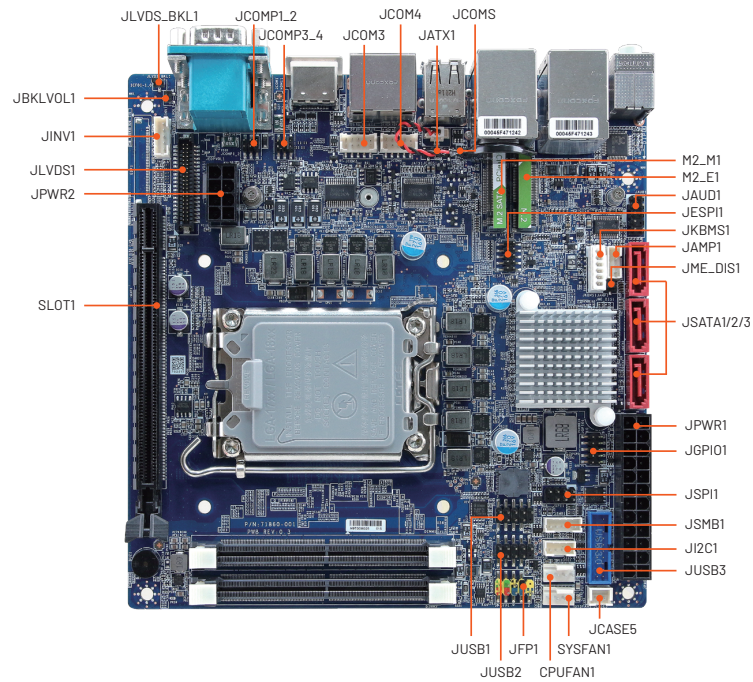
Block Diagram



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I/O Overview



Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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