

## Main Features

- 12th & 13th Gen Intel® Core™ LGA1700 Processors
- 2 x DDR5 5600MHz/4800MHz SODIMM up to 64GB
- 2 x Intel i225-V2.5GbE
- 2 x HDMI 2.0, 2 x DP 1.4, 1x LVDS/eDP support Triple displays
- 1 x M.2 2280 Key M slot
- 1 x M.2 2230 Key E slot support CNVio
- 1 x M.2 3042/3052 Key B slot support 4G/5G Module
- 2 x USB 3.2 (Gen 2), 1 x USB 3.2 (Gen1), 3 x USB 2.0
- 2 x SATA III (6 Gb/s)
- 6 x COM (2 x RS232/422/485, 4 x RS232)
- Mini-ITX form factor (170mm x 170mm)
- Support wide voltage 12V~36V DC-in

## Product Overview

The NEX 619 is an Mini-ITX board. It is equipped with the 12/13th Generation Intel® Core™ processors to support TDP up to a maximum of 65W max and Intel® H610 chipset. It comes with 2 x DDR5 5600/4800MHz SO-DIMM sockets up to 64GB with Non-ECC Memory, Dual-Channel Memory Architecture and an integrated HD graphic controller.

The NEX 619 support 2 x SATAIII 6Gb/s, 1 x M.2 Key B, 1 x M.2 Key M, 1 x M.2 Key E, 3 x USB 3.2, 3 x USB 2.0, 2 x Intel 2.5GbE LAN, 1 x HD Audio. NEX 619 features versatile displays as well as critical mission of industrial embedded applications, such as kiosk, digital signage, gaming, automation applications...etc.

## Specifications

### CPU Support

- Intel® 12/13th Generation Intel® Core™, LGA 1700 socket, core i9/i7/i5/i3 Pentium/Celeron Processor Max. 65W TDPs, Intel H610 PCH

### Display

- SO-DIMM x 2, DDR5 5600/4800 MHz, up to 64GB
- Non-ECC, Dual-Channel memory architecture

### BIOS

- AMI Flash ROM BIOS

### Display

- 2 x HDMI 2.0b, Up to 4096 x 2160 @60Hz
- 2 x DP 1.4a, Up to 4096 x 2304 @60Hz
- 1 x LVDS/eDP, up to 1920 x 1200 @60Hz,
- Support Triple Displays

### Ethernet

- 2 x Intel i225-V 2.5GbE

### Storage

- 2 x SATA III (6 Gb/s)
- 1 x M.2 2280 M key

### Expansion Slot

- 1 x M.2 Key B (3042/3052, USB3.1/USB2.0/PCIex1 interface) support 4G/5G module
- 1 x M.2 2230 Key E (2230,PCIex1/USB2.0 interface)support CNVio for Wi-Fi
- 1 x PCIe Gen 4 x16 support PCIe card up to Max.70W

### Serial Port

- 2 x (RS232/422/485), 4 x RS232

### Audio

- 1 x HD Audio Realtek ALC888S (with 3W Amp)

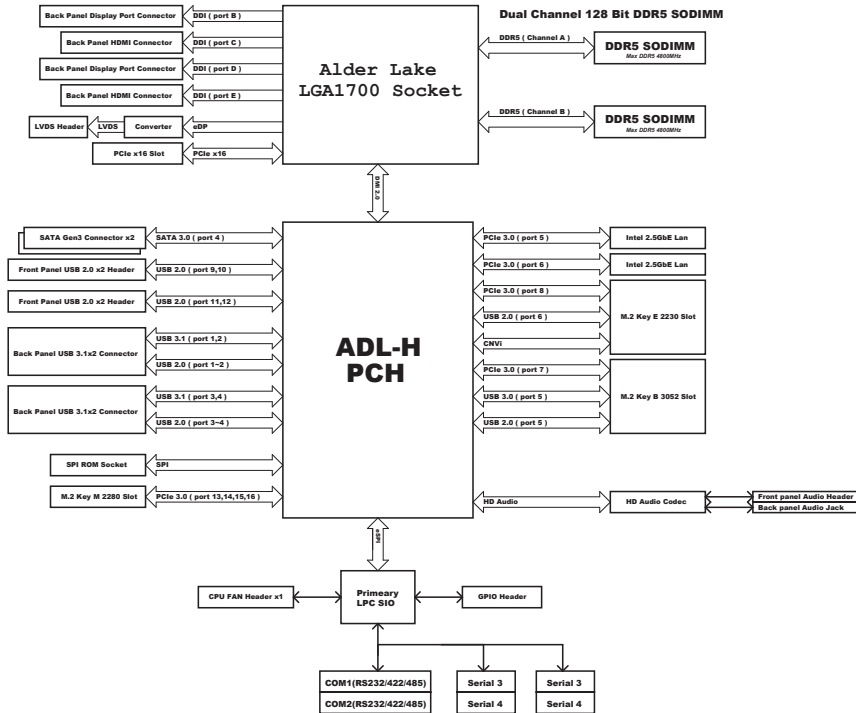
### Watch Dog

- From Super I/O
- 256 segments (10sec~255min)

### Rear I/O

- 2 x DP 1.4a
- 2 x HDMI 2.0b
- 2 x 2.5GbE
- 2 x USB 3.2 (Gen2)
- 1 x USB 3.2 (Gen1)
- 1 x USB 2.0
- 1 x Audio jack (Line-out / MIC combo)
- 1 x 12V~36V DC in jack

## Block Diagram



### Dimensions

- Mini-ITX Form Factor, 6.7"x6.7" (170mmx170mm)

### Power Requirement

- 12V~36 V DC in , AT/ATX Supported
- AT: Directly PWR on as Power input ready
- ATX: Press Button to PWR on after Power input ready

### Environment

- Board level operation temperature : 0°C to 60°C
- Storage temperature : -20°C to 85°C
- Relative humidity: 10% ~ 90% RH @40 0°C (non-condensing)

### Certifications

- Meet CE / FCC Class A

### OS Support

- Windows® 10 64-bit, Windows® 11 64-bit

## Ordering Information

### Barebone

- **NEX619 (P/N: 6879G0006190F)**  
Mini-ITX, 12/13th Generation Intel® Core™, LGA 1700 socket, processor max 65W TDPs, PCH H610 , 2x DDR5 SODIMM, 2 x HDMI, 2 x DP , 3 x USB 3.2, 3 x USB 2.0, 2 x 2.5GbE , 2 x SATA III, 2 x RS232/422/485, 4 x RS232, 3 x M.2

### Packing List

- SATAIII cable
- SATA power cable
- COM cable
- I/O shield
- NEX619 mainboard

### Optional Accessories

- CPU 2U Cooler (P/N:685050200001F)
- CPU 1U Cooler (P/N:685050200002F)