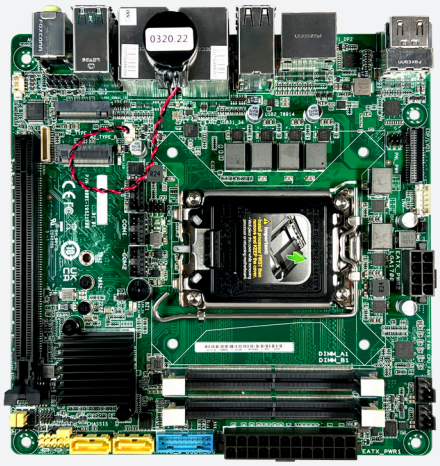
NEX 618

Mini-ITX Supports 14th/13th/12th Gen Intel® Core™
LGA1700 Socket Processor



Main Features

- Intel® LGA1700 socket supports 14th/13th/12th Gen Intel® Core™ processor (max 65W)
- Intel® Q670E Express chipset
- 2 x DDR5 SO-DIMM 4800MHz up to 64GB
- 1 x Intel® i210-AT GbE, 1 x Intel® i219-LM GbE
- 1 x M.2 Key M , 1 x M.2 Key B
- 2 x SATA 3.0 (6Gb/s)
- 2 x HDMI®, 2 x DP
- 8 x USB 3.2 (Gen 1), 4 x USB 2.0
- 1 x PCIe x16 slots
- 24 + 8-pin ATX power input
- Mini-ITX form factor (170mm x 170mm)

Product Overview

The NEX 618 is an Mini-ITX board. It is equipped with the 14th/13th/12th Gen Intel® Core™ processors to support TDP up to a maximum of 65W max and Intel® Q670E chipset. It comes with 2 x DDR5 4800MHz SO-DIMM sockets up to 64GB with non-ECC memory, dual-channel memory architecture and an integrated HD graphic controller.

The NEX 618 support 2 x SATA3.0 6.0Gb/s, 1 x M.2 Key B, 1 x M.2 Key M, 8 x USB 3.2, 4 x USB 2.0; 2 x Intel GbE LAN, 1 x Line-out and 1 x MIC-in. NEX 618 features versatile displays and one PCIe x16 slot support for multimedia as well as critical mission of industrial embedded applications, such as kiosk, digital signage, gaming, automation applications...etc.

Specifications

CPU Support

- Intel® 14th/13th/12th Gen Intel® Core™, LGA 1700 socket, processor max 65W TDPs, Intel® Q670E PCH

Display

- SO-DIMM x 2, DDR5 4800MHz Up to 64GB
- Non-ECC, dual-channel memory architecture

BIOS

- 256Mb flash ROM, AMI BIOS

Display

- 2 x HDMI® 2.0 connector (resolution Up to 4096 x 2160 @ 60 Hz)
- 2 x DP 1.2 connector (resolution Up to 4096 x 2160 @ 60 Hz)
- 1 x LVDS Up to 1920 x 1080 @ 60 Hz, dual channel 18/24 bit via pin header
- 1 x eDP Up to 1920 x 1080 @ 60 Hz via pin header
- Four independent display:
  HDMI® x 2 + DP x 2, HDMI® x 2 + DP x 1 + LVDS x 1, HDMI® x 2 + DP x 1 + eDP x 1, HDMI® x 1 + DP x 2 + LVDS x 1, HDMI® x 1 + DP x 2 + eDP x 1

Storage

- 2 x SATA 3.0 port
- 1 x M.2 2280 Key M

Expansion Slot

- 1 x PCIe x16 slot
- 1 x M.2 3042/3052 Key B; PCIe x1

Serial Port

- 1 x COM (RS232/422/485) by BOX header
- 1 x COM (RS232) by BOX header

Audio

- Realtek ALC897 high definition audio CODEC with Amp

Watch Dog

- 1~255 step by software program

DIO

- 8-bit digital I/O interface x 1

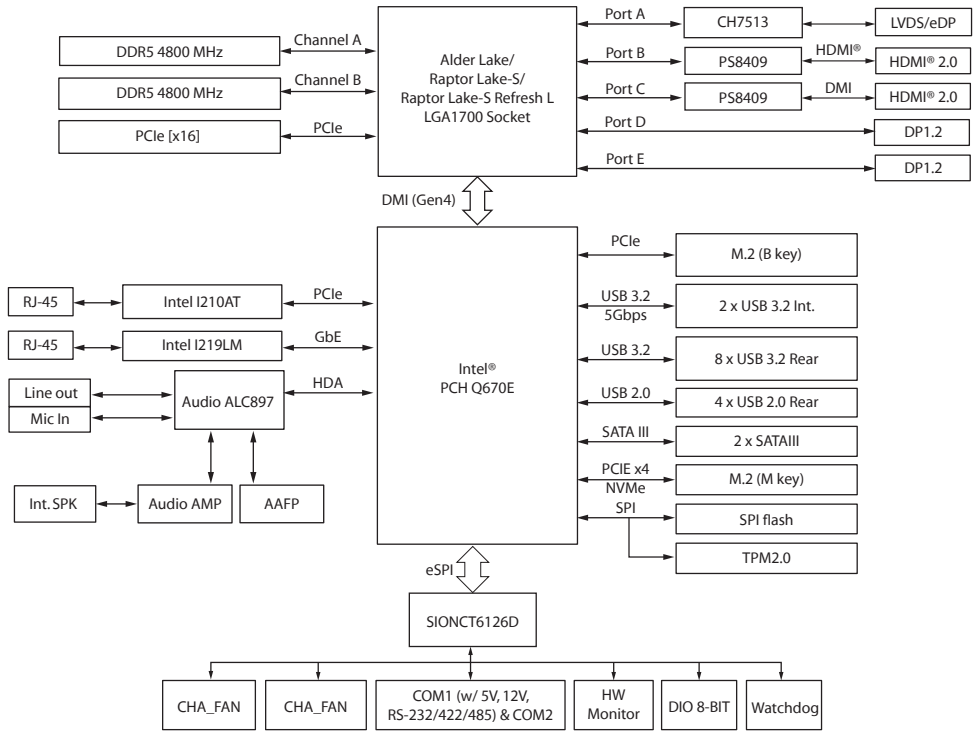
TPM

- TPM 2.0 on board

Rear I/O

- 2 x HDMI® 2.0 , 2 x DP1.2
- 2 x RJ45 (1 x Intel® i210-AT GbE, 1 x Intel® i219-LM GbE)
- 8 x USB 3.2, 4 x USB2.0
- Audio Jack x 3: Line-in, Mic-in, Line-out

Block Diagram



Dimensions
- Mini-ITX form factor, 6.7" x 6.7" (170mm x 170mm)

Power Requirement
- 1 x 24-pin ATX connector x 1, 8-pin ATX 12V power connector
- Support both AT and ATX power supply mode

Environment
- Board level operation temperature: 0°C to 60°C
- Storage temperature: -40˚C to 85˚C
- Relative humidity: 0% to 90% (operating, non-condensing)

Certifications
- Meet CE / FCC Class A

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

Ordering Information

Barebone
- **NEX 618 (P/N: 6879G0006180F)**
  Mini-ITX, 14th/13th/12th Gen Intel® Core™, LGA 1700 socket, processor max 65W TDPs, PCH Q670E, 2 x DDR5 SO-DIMM, 2 x HDMI®, 2 x DP, 8 x USB 3.2, 4 x USB 2.0, 2 x GbE LAN, 2 x SATA3.0, 1 x RS232, 1 x RS232/422/485, 1 x PCIex16, 2 x M.2, onboard TPM2.0

Packing List
- **SATA cable**
- **I/O shield**
- **NEX 618 mainboard**

Optional Accessories
- **CPU Cooler (P/N:685050200001F)**
- **CPU Cooler (P/N:685050200002F)**

We reserve the right to change specifications and product descriptions at any time without prior notice.