

## Main Features

- Intel® LGA1200 socket supports 10/11th Gen Intel® Core™ processor (max 125W)
- Intel® Comet Lake-S Q470E chipset
- 4 x DDR4 3200/2933MHz up to 128GB
- 1 x Intel® i225-V 2.5GbE, 1 x Intel® i219-LM GbE
- 2 x M.2 Key M (NVMe), 1 x M.2 Key E (CNVi), 1 x M.2 Key B
- 4 x SATA 3.0 (6Gb/s), support Raid 0/1/5/10
- 1 x VGA, 1 x HDMI, 1 x DP
- 2 x RS232/422/485, 4 x RS232, 4 x USB 3.2 (Gen 2), 1 x USB 3.2 (Gen 1), 6 x USB 2.0
- 2 x PCIe x16, 5 x PCIe x4 slots
- 2 x CPU FAN, 2 x System FAN
- 24 + 8-pin ATX power input
- ATX form factor (305 x 244mm)

## Product Overview

The NEX 916 is a high performance ATX board with rich expansions. It is equipped with 10/11th Gen Intel® Core™ processors to support a maximum of 125W, along with the Intel® Q470E chipset, and four DDR4 DIMM sockets up to 128GB. Moreover, its SATA 3.0 ports with Raid 0, 1, 5, and 10, help to provide quick access to data files and data protection.

This ATX board operates at a temperature range from 0°C to 60°C, which is ideal for embedded applications, IoT, AI, AOI, AI vision, logistics, etc.

## Specifications

### CPU/Chipset

- Intel® LGA1200 socket supports 10th/11th Gen Intel® Core™ processor max 125W
- Intel® Q470E chipset
- AMI 256M flash ROM

### Main Memory

- 4 x DDR4 3200/2933 MHz long DIMM up to 128GB

### Storage

- 4 x SATA3.0 (6.0Gb/s, Support Raid 0/1/5/10)
- 2 x M.2 Key M (2242/2280, support NVMe, M2M1 only 11th CPU)

### Expansion

- 1 x M.2 Key B (3042/3052, USB 3.2+PCIe x1 interface, support 4G/5G module)
- 1 x M.2 Key E (2230, CNVi + USB 2.0 interface, support Wi-Fi/BT module)
- 2 x PCIe x16 slots (by CPU)
- 5 x PCIe x4 slots (PCIe2 by CPU, PCIe4 is PCIe x1 interface)

### Ethernet

- 1 x Intel® i219-LM GbE
- 1 x Intel® i225-V 2.5GbE

### Graphics

- Intel® HD Graphics, shared memory
- 1 x VGA (max resolution: 1920 x 1080@60Hz)
- 1 x DP1.2 (max resolution: 4096x2304@60Hz)
- 1 x HDMI 1.4 (max resolution: 4096x2160@30Hz)

### Audio

- Line-in, Line-out, MIC

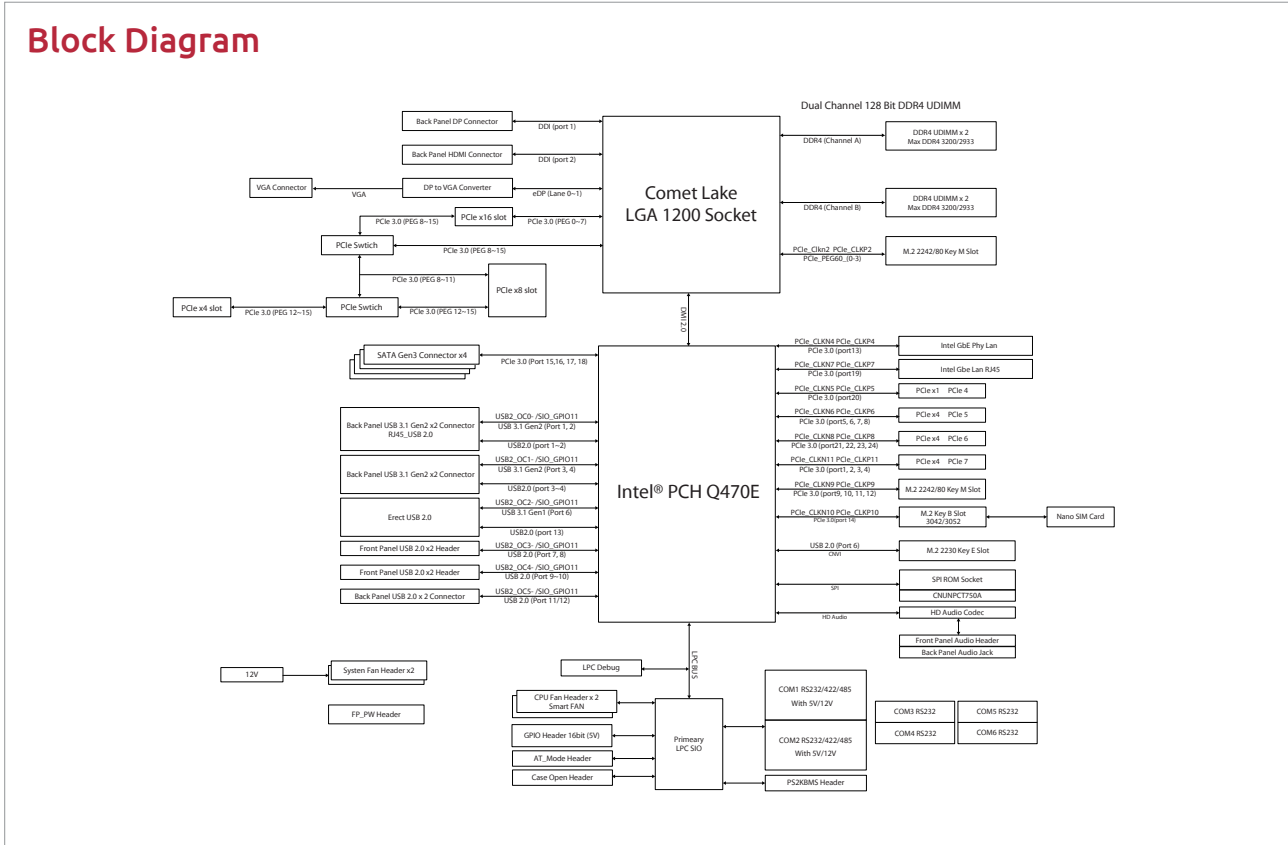
### Watchdog Timer

- From super I/O to drag RESETCON#
- 256 segments (10sec ~ 255min)

### Internal I/O

- 4 x USB 2.0
- 1 x USB 3.2 (Gen1, type A)
- 4 x RS232 (COM3/4 support 5/12V TTL)
- 4 x M.2 (2 x Key M, 1 x Key B, 1 x Key E)
- 2 x PCIe x16 slots (by CPU)
- 5 x PCIe x4 slots (PCIe 2.0 by CPU, PCIe 4.0 is PCIe x1 interface)
- 1 x GPIO (16-bit, 5V)
- 1 x PS/2
- 1 x SIM card slot
- 2 x CPU fan (support smart fan)
- 2 x System fan

## Block Diagram



- 1 x Chassis intrusion
- 1 x SMBUS/I2C
- 1 x AT mode

### External I/O

- 2 x RS232/422/485 (support 5V/12V TTL)
- 4 x USB 3.2 (Gen 2)
- 2 x USB 2.0
- 1 x VGA
- 1 x HDMI
- 1 x DP
- 2 x RJ45
- Line-in, Line-out, MIC

### Power

- ATX power
  - AT: Directly PWR on as power input ready
  - ATX: Press button to PWR on after power input ready

### Compliance

- CE, FCC, RoHS, REACH

### Temperature

- Operating temperature: 0~60° C
- Storage temperature: -20~70° C
- Humidity: 10%~90% RH@40° C (non-condensing)

### OS Support

- Windows 10, 11, Linux

## Ordering Information

### Barebone

- **NEX 916 (P/N: 6879G0009160F)**  
Intel® Comet Lake-S Q470E, supports LGA1200 CPU (max 125W), DDR4 up to 128GB
- **Packing list**
  - NEX 916
  - COM cable x 1
  - SATA cable x 2
- **Optional Accessories**
  - CPU cooler (P/N:5050200151X00)
  - BACK plate (P/N:5061711340X00)