

## Main Features

- Intel® 7th/ 6th Generation (Kaby Lake-S/Skylake-S) Core™ i7/i5/i3/ Pentium®/Celeron® 14nm LGA1151 socket processor, PCH Q170
- 4 x U-DIMM DDR4 with non-ECC SO DIMM 2133/1867 MHz up to 64GB
- Support triple display 2 x HDMI, VGA
- 2 x Intel® GbE LAN, 10 x USB 3.2 (Gen1), 4 x USB 2.0, 5 x RS232, 1 x RS232/485/422, 4 x SATA 3.0, PS/2 combo port, 8-bit GPIO, HD audio.
- 1 x PCIe x16, 2 x PCIe x4, 4 x PCI slots

## Product Overview

The NEX 912P is an ATX board. It is equipped with 7 th/6 th Generation (Kaby Lake S/Skylake S) Intel® Core™ i7/i5/i3/ Pentium® /Celeron® 14 nm LGA 1151 socket processor to support 65W max and Intel® Q170 chipset. It comes with four DDR 4 DIMM sockets up to 64 GB DDR 4 2133/1867 MHz with non-ECC support and integrated HD graphic controller. The NEX912P with Intel® Q170 PCH provides high performance and rich expansion. Furthermore it also features an integrated Intel® AMT 11 for easier maintenance.

NEX 912P operates at a temperature range from 0°C to 60°C, this design is ideal for embedded applications that run in outdoor or semi outdoor environments, such as kiosks, outdoor systems installed in harsh environments, home automation, and thin clients.

## Specifications

### CPU Support

- 7th/6th Generation (Kaby Lake S/Skylake S) Intel® Core™ i7/i5/i3/ Pentium®/Celeron® 14nm LGA1151 socket processor

### Main Memory

- 4 x DDR4 U DIMM memory socket with non-ECC support, up to 64 GB 2133/1867 MHz

### BIOS

- AMI (UEFI)

### Display

- 1 x VGA connector (resolution up to 1920 x 1200@60Hz)
  - 2 x HDMI 1.4 connector (resolution Up to 4096 x 2160@24 Hz)
- \* Tip: Multiple display: (VGA + HDMI, HDMI + HDMI, VGA + HDMI + HDMI)

### System

- 10 x USB 3.2 (Gen1), 4 x USB 2.0
- 5 x RS232, 1 x RS232/485/422
- Realtek HDA codec
- 1 x Front panel header, 8-bit digital I/O (in/out programmable), WDT, chassis intrusion
- 2 x Fan connector

### Storage

- 4 x SATA 3.0 (6.0Gb/s) ports

### Expansion Slot

- 1 x PCIe x16, 2 x PCIe x4, 4 x PCI slots

### Rear I/O

- 1 x 4 deck USB 3.2 (Gen1)
- 1 x VGA, 2 x HDMI
- 1 x RS232/455/422
- 2 x RJ45
  - Intel® PHY I219-LM GbE LAN x 1 (supports Intel® AMT 11.0)
  - Intel® I210-AT GbE LAN x 1
- 4 x USB 3.2 (Gen1)
- 1 x 3 ports HD audio Jack (Line, Mic-in, Line-out)

### Internal I/O

- 4 x USB 2.0 (pin header)
- 5 x serial ports
  - 5 x RS232
- 1 x 8-bit digital I/O interface (in/out programmable)

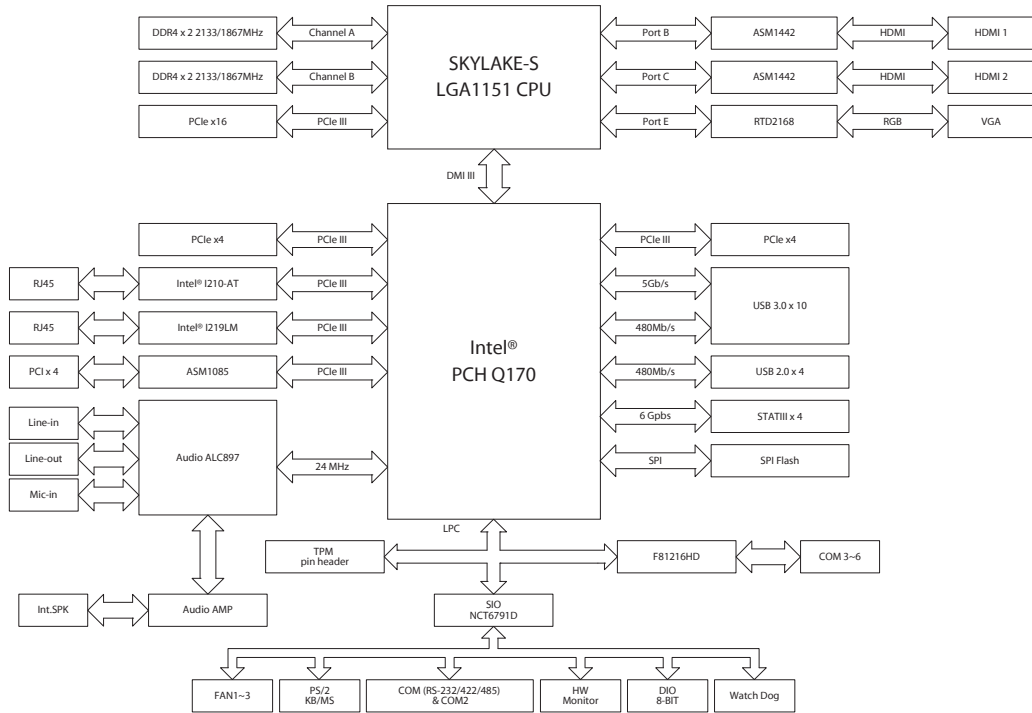
### Power Requirement

- 1 x 24-pin ATX connector x 1, 8-pin (2 x 4) ATX 12V power connector
- Support both AT and ATX power supply mode

### Dimensions

- ATX form factor, 12"x9.6" (305mm x 244mm)

## Block Diagram



### Environment

- Board level operation temperature: 0°C to 60°C
- Storage temperature: -40°C ~85°C
- Relative humidity:
  - 10% to 95% (operating, non-condensing)
  - 5% to 95% (non-operating, non-condensing)

### Certifications

- Meet CE/FCC Class A

### Ordering Information

#### ◆ NEX 912P (P/N: 687ANEX91201F)

ATX form factor, 6th/7th Generation Intel® Core™, Q170, LGA1151, 4 x DDR4 U-DIMM, 2 x HDMI, VGA, 10 x USB 3.2 (Gen2), 4 x USB 2.0, 2 x GbE LAN, 4 x SATA 3.0, 5 x RS232, 1 x RS232/422/485, 1 x PCIe x16, 2 x PCIe x4, 4 x PCI