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# Datasheet

## **NEXCOM**

### **Neu-X303mini**

Edge Computing System Powered by 12th Generation Intel® Core™ Processor



## Main Features

- 12th Generation Intel® Core™ (Alder Lake - PS) processor SoC
- Four 4K@60Hz display output, DP, HDMI 2.1 and 2 x USB 3.2 Type-C
- Dual 2.5G LAN ports, 4 x USB 3.2 and 2 x USB 3.2 Type-C ports for easy connection
- Onboard M.2 2280 Key M with PCIe signal for storage modules
- Onboard M.2 2230 Key E for optional Wi-Fi modules
- Compact design (L: 183mm, W: 137.9mm, H: 47.9mm)
- 12V DC in

## Product Overview

Powered by the latest 12th Generation Intel® Core™ (Alder Lake-PS) processor, the Neu-X303mini series edge computing system can handle very rich multimedia contents. With Intel® processor's low power consumption and new Intel® Iris® X<sup>e</sup> graphics, the platform delivers powerful graphics offering stunning visuals for compelling 4K content creation and media playback. In addition, the Neu-X303mini series supports display output by HDMI and DP ports with flexible integration for various peripherals such as touchscreen displays, scanners, readers, and many more. Neu-X303mini is a compact edge computing system with ample IOs including 2 LAN ports, 4 USB ports, and 2 USB Type-C ports to support intelligent vending machine, self-service checkout machine, AI facial recognition, or digital transit information signs. With enhanced performance, it is also ideal as a visual edge computer delivering advertising, hospitality, and brand promotion applications in an all-new immersive experience.

## Specifications

### CPU Support

- Intel® Core™ i7-12800HL, 14 Core, 2.4GHz, 24M Cache
- Intel® Core™ i7-12700HL, 14 Core, 2.3GHz, 24M Cache
- Intel® Core™ i5-12600HL, 12 Core, 2.7GHz, 18M Cache
- Intel® Core™ i5-12500HL, 12 Core, 2.5GHz, 18M Cache
- Intel® Core™ i3-12300HL, 8 Core, 2GHz, 12M Cache

### Chipset & Memory

- SoC (codenamed Alder Lake-PS)

### Main Memory

- 2 x 262-pin DDR5 SO-DIMM, supports non-ECC, un-buffered memory up to 64G

### Graphics & Display

- Intel® Iris® X<sup>e</sup> graphics engine
- 1 x DP, support 4096x2304@60Hz
- 2 x DisplayPort over USB Type-C, support 4096 x 2304@60Hz
- 1 x HDMI 2.1, support 7680 x 4320@60Hz

### I/O Interface-Front

- 1 x Power button
- 1 x HDD LED

### I/O Interface-Rear

- 2 x RJ45 Intel® 2.5G Gigabit LAN port
  - 1 x Intel® I225-LM
  - 1 x Intel® I225v
- 1 x DP
- 1 x HDMI 2.1
- 4 x USB 3.2
- 2 x USB Type-C
- 1 x 12V DC input
- 2 x Antenna hole for Wi-Fi

### I/O Interface-Internal

- 1 x 4-pin connector for PWM smart FAN
- 1 x USB 2.0 header
- 1 x RS232 header (9-pin)
- TPM 2.0 onboard

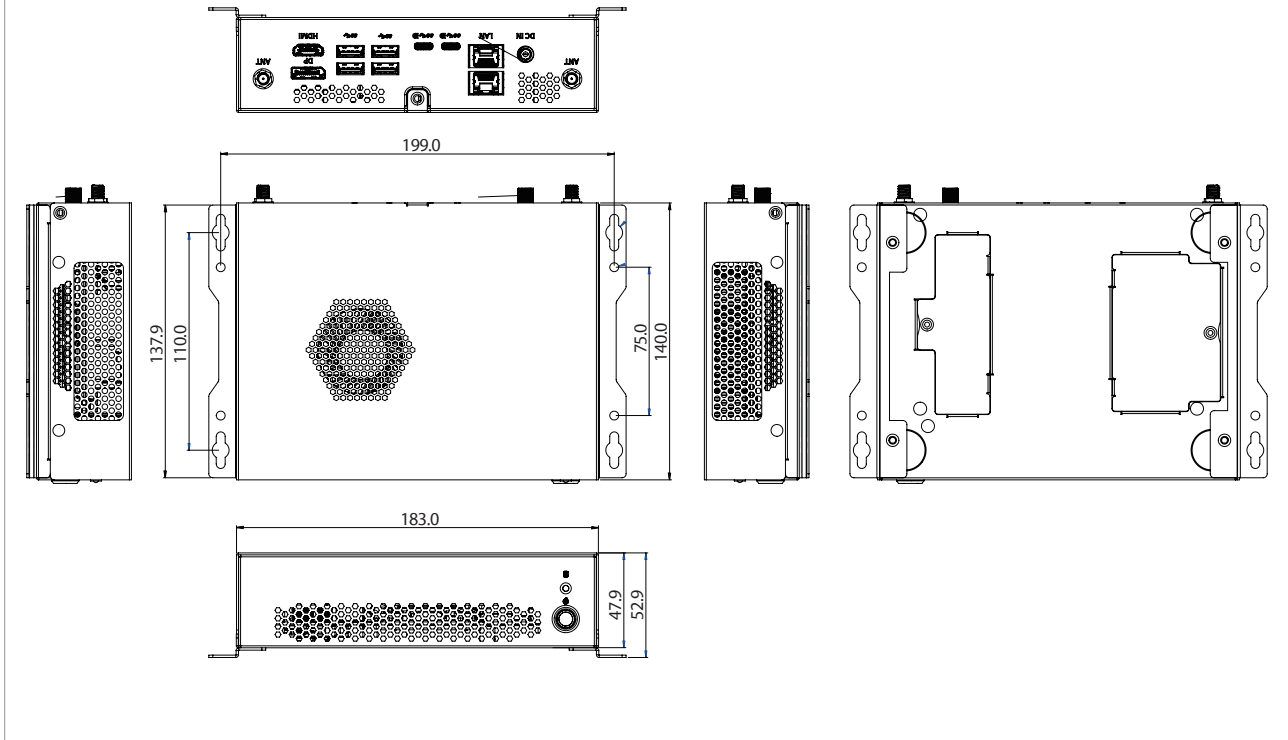
### Storage

- 1 x M.2 2280 Key M (PCIe x4 only), support optional storage modules

### Expansion

- 1 x M.2 2230 Key E (PCIe x1), support optional Wi-Fi modules

## Dimension Drawing



### Power Requirements

- Power input: 12V DC

### Environment

- Operating temperature: 0°C to 60°C
- Storage temperature: -40°C to 80°C
- Humidity: 10 to 95% (non-condensing)
- Shock protection: 50G peak acceleration, 11ms according to IEC-60068-2-27
- Vibration protection:
  - Random: 2G rms@5~500Hz, IEC60068-2-64
  - Sinusoidal: 2G@5~500Hz, IEC60068-2-6

### Certification

- CE (EMC EN55032+EN55035)
- FCC Class A (EMI part 15B)

### Dimensions

- 183mm (W) x 137.9mm (D) x 47.9mm (H) (without wall mount bracket)

### Operating System

- Windows 10 21H2/Windows 11 21H2/Linux

## Ordering Information

- **Neu-X303mini (P/N: 10W10X30300X0)**  
Socket LGA1700, 12th Generation Intel® Core™ i7/i5/i3 processor compact system, 12V DC

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