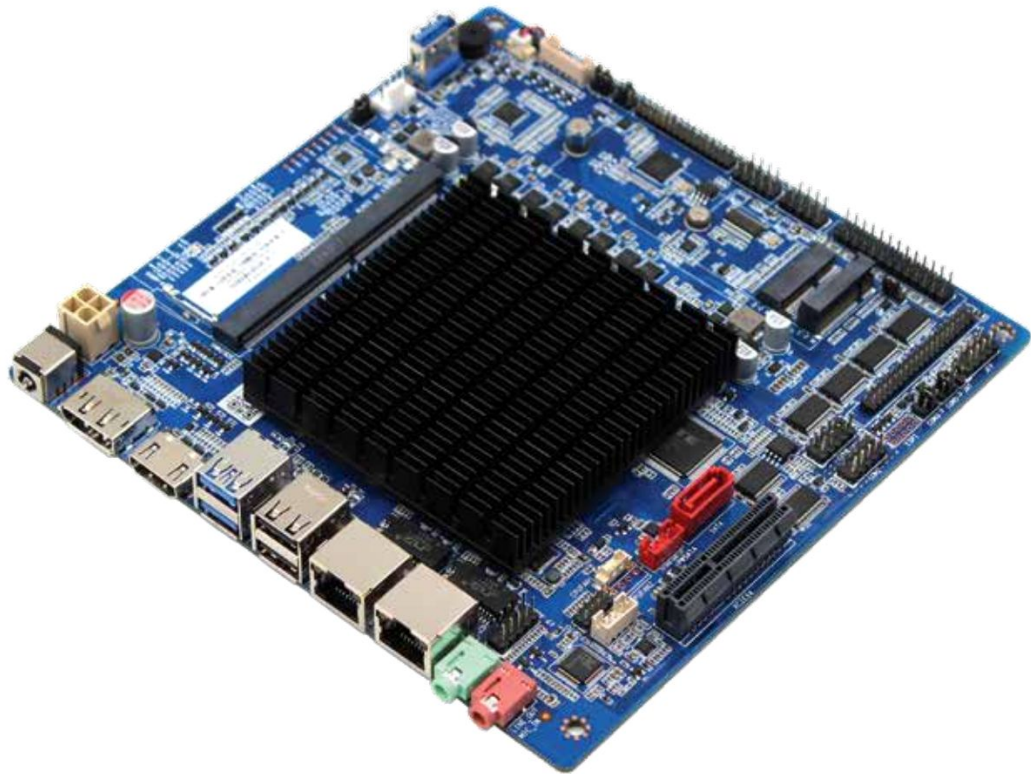


1ST-MITX-ALN10

Mini ITX Embedded Motherboard

with 12th Gen Intel® Processor N-series (Alder Lake-N), HDMI, DP, 2x 2.5GbE, 6x COM, 6x USB



The 1ST-MITX-ALN10 is an embedded Mini-ITX motherboard with the 12th Gen Intel® Alder Lake-N series Processor or Intel® Core™ Processor N-series soldered on board.

The board supports up to 8 cores and 8 threads, faster graphics performance with low power consumption. Its small form factor design is great for IoT deployments that require powerful performance, high-speed connectivity and enhanced graphics density.

It carries 1x DDR4 SO-DIMM slot for up to 32GB.

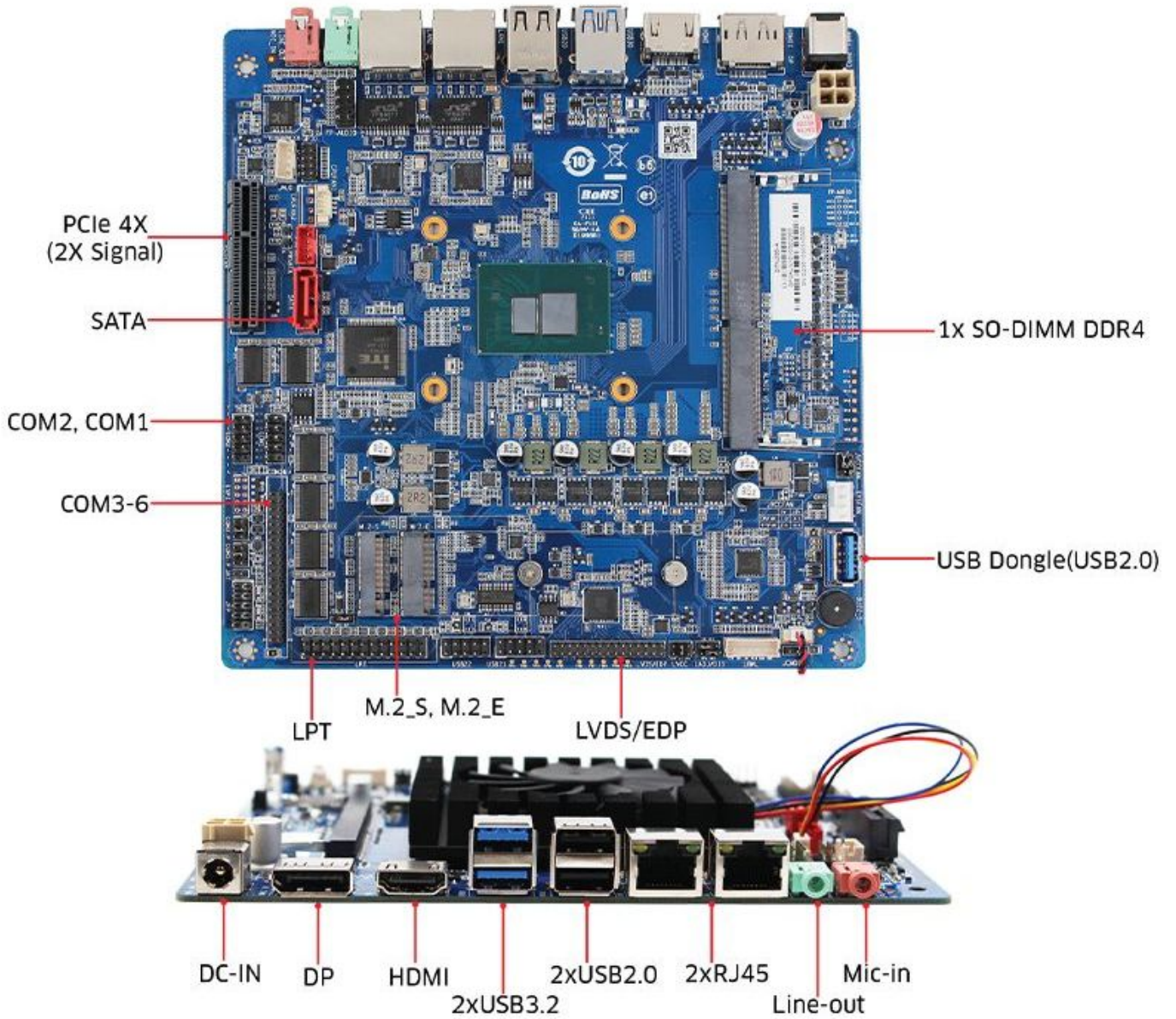
- 2x 2,5GbE RJ45 Intel® i226
- GPU: Intel® UHD Graphics depends on CPU
- Display: 1x HDMI2.0, 1x DP, 1x LVDS/eDP
- 2x USB3.2, 6x USB 2.0, 1x USB Dongle, 6x COM, 8 bit GPIO
- Expansion: M.2 for WiFi, PCIe x4
- Storage: SATA, M.2 for SATA SSD/4G

The 1ST-MITX-ALN10 is an ideal solution for energy saving x86 systems.

Applications

- Industrial control: factory control and testing, security and surveillance systems, energy sector
- Digital signage: split display, shopping mall billboard, scoreboard
- Other Applications: POS/POI systems, smart school, electronic gaming machine, thin clients

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	Items	Descriptions
Motherboard	CPU	Intel® Core™ i3-N305 (up to 3.8 GHz, 8 Cores/8T CPU, TDP 15W), Active Cooling Intel® N100 (up to 3.4 GHz, 4C/4T CPU, TDP 6W), Passive Cooling, default Intel® N97 4C (up to 3.6 GHz, TDP 12W), Active Cooling
	System Memory	1x SO-DIMM DDR4 up to 32GB
	GPU	Intel® UHD Graphics
	BIOS	AMI UEFI BIOS
Display		1x HDMI 2.0, 1x DP, 1x LVDS/eDP header
Ethernet	Controller	2x Intel® 226 Data Rate per Port: 2.5GbE
	Interface	2x RJ45
	Wake on LAN	Yes
Hardware Monitoring		CPU/System temperature, onboard DC-IN voltage, watchdog and auto power on. Buzz optional. None by default.
Storage		1x M.2 for SATA SSD/4G 1x SATA
Expansions		1x M.2 for WiFi, support Intel ® Integrated Connectivity (CNVi) 1x PCIe x4 SIM optional
I/O Interface		2x LAN RJ45 USB3.2 2x rear ports USB 2.0 2x rear ports USB Dongle 1x USB2.0 8bit GPIO Audio 1x Line-out , 1x Mic-in, Realtek HD
I/O Headers		6x COM: 6x RS232(default) or 5x RS232 and 1x RS485(COM2) 4x USB2.0 header
Power	Standard Input	12V/19V DC-IN
Mechanical & Environmental	Type	Mini ITX
	Dimensions (LxW)	170mm x 170mm (LxW)
	Operating temperature	-20°C ~ 60°C non condensing
	Storage temperature	-40°C ~ 80°C
	Peripheral Input	for Fan and SATA
Supported OS		Windows10/11 64bit, Linux 64bit

Ordering Information

Part No.	Descriptions
1ST-MITX-ALN10-N305	Thin Mini ITX Embedded Motherboard with Intel® Core™ i3-N305
1ST-MITX-ALN10-N100	Thin Mini ITX Embedded Motherboard with Intel® N100 - default
1ST-MITX-ALN10-N97	Thin Mini ITX Embedded Motherboard with Intel® N97

1ST-MITX-ALN10 Functional Block Diagram

