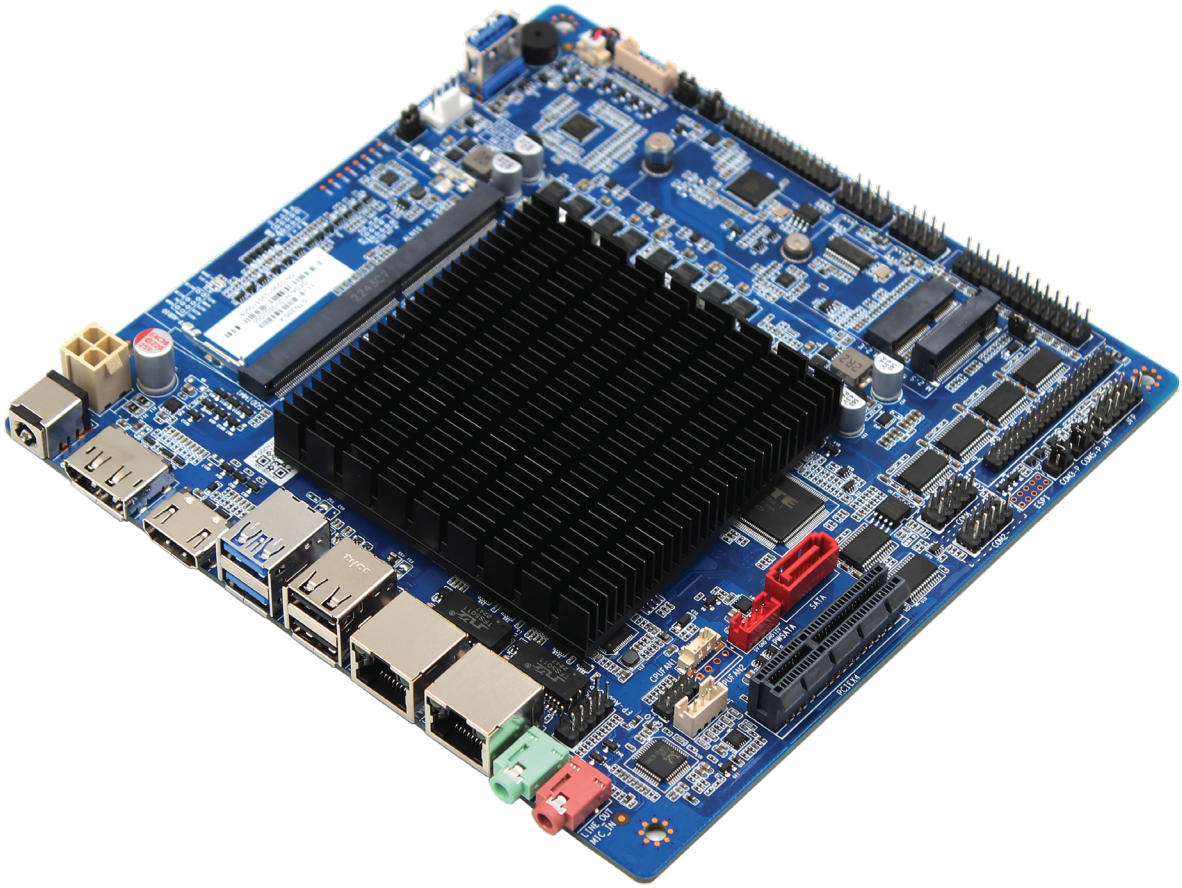
PRODUCT DATASHEET
HW Rev.: V0.5

ALN-10

Intel® Twin Lake/Alder Lake-N Series Mini ITX Motherboard



Features

- CPU: Intel® Twin Lake/Alder Lake-N Series
- Memory: Single channel SO-DIMM DDR4 up to 16GB/32GB
- GPU: Integrated Intel® UHD Graphics
- Ethernet: 2xIntel i226(2.5GbE)
- Storage: M.2 Key B for SATA SSD/4G, SATA3.0
- Expansion: M.2 Key E for WiFi&BT, PCIe x4 Slot(PCIe x2 Signal)
- Power: 19V/12V DC-in

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Maxtang®
MAXIMIZING YOUR COMPUTING PRODUCTIVITY

Introduction

The Maxtang ALN-10 is based on the 12th Gen Intel Twin Lake/Alder Lake-N series processor ideal for various industrial applications. 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 Supports 1xSO-DIMM DDR4 up to 16GB, features HDMI2.0+DP+LVDS/EDP for multitasking, a rich I/O interfaces includes 6xCOM, 2xUSB3.2+6xUSB2.0+1xUSB Dongle, 2xLAN, 1xSATA, 2xM.2 connector, PCIe x4(PCIe x2 Signal), GPIO and optional TPM2.0 for added security.

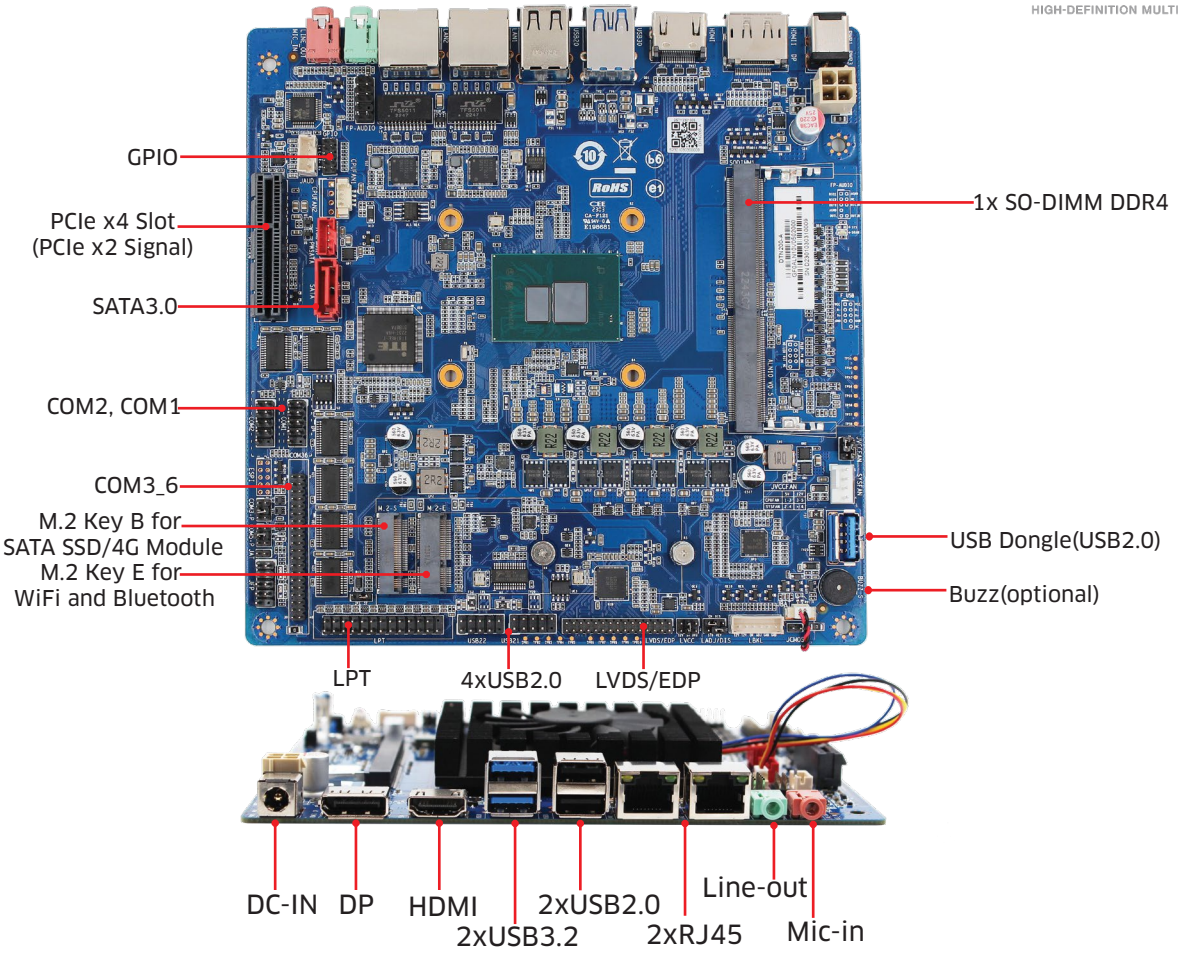
The ALN-10 drives more value for IoT use cases with differentiated capabilities and offers an immersive experience through the Intel UHD graphics for multiple 4K independent displays. The motherboard is great for energy saving, suitable for surveillance, digital signage, electronic gaming machine, and thin client.

Linux
ubuntu
Windows

H/W Monitor
Watchdog
GPIO
Brightness

HDMI HIGH-DEFINITION MULTIMEDIA INTERFACE

I/O Interfaces

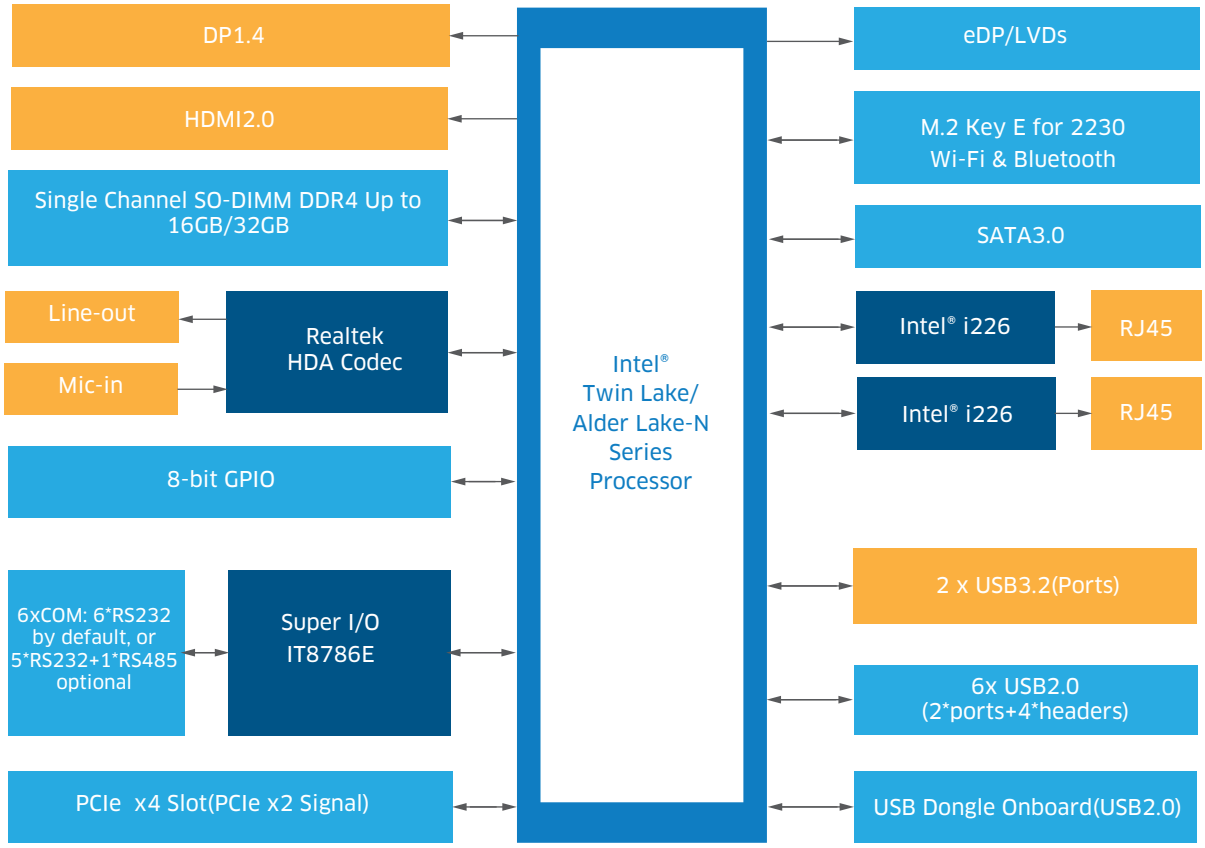


Technical Specifications

Processor	Alder Lake N Series	i3-N305	N150	N100	N97
	Total Cores/Threads	8C/8T	4C/4T	4C/4T	4C
	Max Turbo Frequency	3.80GHz	3.60GHz	3.40GHz	3.60GHz
	Cache	6MB	6MB	6MB	6MB
	TDP	15W	6W	6W	12W
	Cooling Method	Active	Passive	Passive	Active
	BIOS	AMI UEFI BIOS			
Memory	Type	Single Channel SO-DIMM DDR4			
	Max. Capacity	16GB(N305/N150/N100)/32GB(N97)			
Display	GPU	Integrated Intel UHD Graphics			
	Interface	1 x HDMI2.0, 1x DP, 1x LVDS/eDP			
Ethernet	Controller	2 x Intel i226, Data Rate Per Port: 2.5GbE			
	Interface	2 x RJ45			
	Wake on LAN	Yes			
Audio	Audio Codec	Realtek HD ALC897			
	Interface	1 x Line-out, 1 x Mic-in, supports audio header and amplifier header			
Hardware Monitoring		CPU system temperature, onboard voltage, watchdog, and auto power on			
Storage	M.2_S	1 x M.2 Key B Slot for 2242 SATA SSD or 3042 4G Module			
	SATA	1 x SATA3.0			
Expansion	M.2_E	1 x M.2 Key E Slot for 2230 WiFi and Bluetooth, support CNVi			
	PCIe	1*PCIe x4 Slot(PCIe x2 Signal)			
	SIM	1 x SIM Slot optional			
I/O Interface	COM	6 x COM: 6*RS232(default) or 5*RS232+1*RS485(COM2)			
	USB3.2	2 x USB3.2(rear ports)			
	USB2.0	6 x USB2.0(2*rear ports+4*headers)			
	USB Dongle	1 x USB Dongle Onboard(USB2.0)			
	GPIO	8-bit			
	TPM2.0	Onboard, optional			
	Buzz	Optional. None by default.			
Dimension	Size	170mm x 170mm			
	Form Factor	Mini-ITX			
Power	Standard Port	12V/19V DC-in			
	Peripheral Input	For Fan and SATA			
	Operating Temp.	-20°C ~60°C			
	Storage Temp.	-40°C ~80°C			
Operating System		Win10/11 64 bit, Linux 64 bit			

* All specifications and photos are subject to change without notice.

Functional Block Diagram



Order Information

Model Name	Description
DTN305-A	DT MINI-ITX Intel Core i3-N305 ALN10 2LAN 6*RS232 HDMI+DP+LVDS
DTN150-A	DT MINI-ITX Intel N150 ALN10 2LAN 6*RS232 HDMI+DP+LVDS
DTN100-A	DT MINI-ITX Intel N100 ALN10 2LAN 6*RS232 HDMI+DP+LVDS
DTN97-A	DT MINI-ITX Intel N95 ALN10 2LAN 6*RS232 HDMI+DP+LVDS

***For customized options, please consult regional sales. And please confirm the model name and description before purchasing.
***The model name and description might vary due to inventory changes.

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