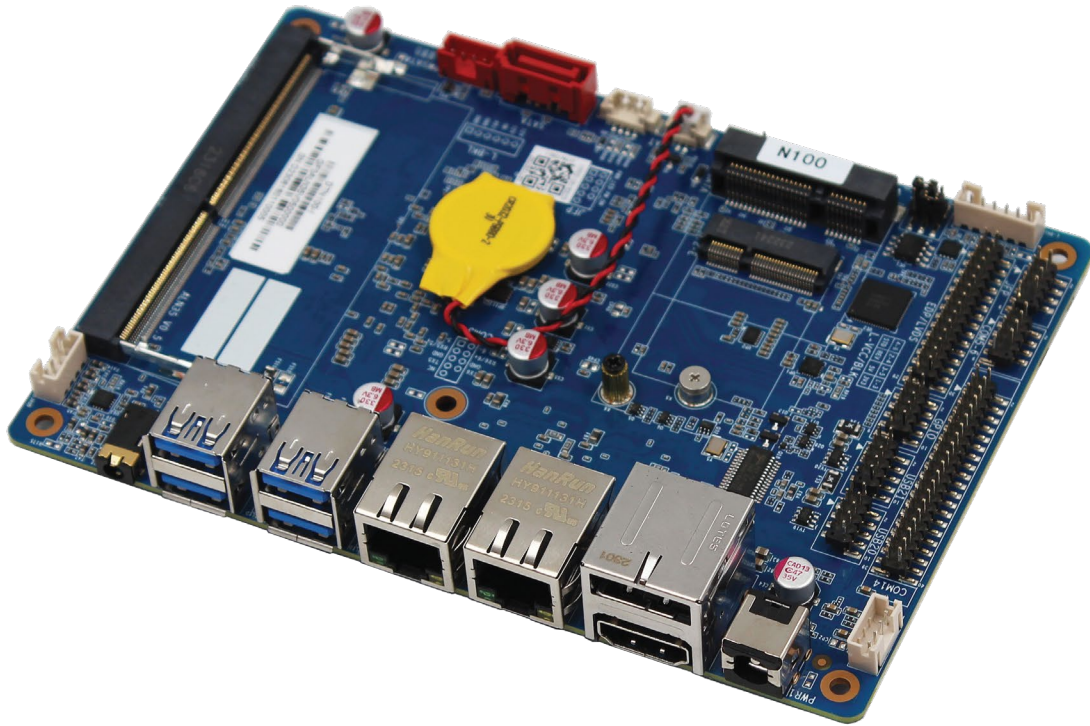# ALN-35

Intel® Alder Lake-N Processor based
3.5" Disk Size Motherboard

Features

- CPU: Intel® Alder Lake-N Processor
- Memory: Single Channel SO-DIMM DDR4 up to 32GB
- Display: Integrated Graphics display via HDMI+DP+eDP/LVDs
- Ethernet: 10/100/1000Mbps (intel i210)
- Storage: mSATA, SATA3.0
- Expansion: 1xM.2 for WiFi
- Power: 12V-35V DC-IN

(intel) **IoT Solutions Alliance**
Industrial Solution Builders Specialist

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Introduction

The Maxtang SBC-ALN35 is a powerful and energy-efficient embedded motherboard designed for industrial applications. It is equipped with an Intel Alder Lake N series processor and supports up to 32GB of single-channel SO-DIMM DDR4 memory, providing enhanced performance and productivity. The board also offers a range of display options, including HDMI, DP plus eDP/LVDS, and features two Intel Ethernet controllers, mSATA and SATA for storage, making it a versatile solution for a variety of applications.

Moreover, the SBC-ALN35 provides a comprehensive input/output interface, including 6xCOM, 4xUSB3.2, 4xUSB2.0, GPIO, and CTIA audio port, making it easy to connect to a wide range of peripherals. The board is designed for stability and reliability and is built with a robust design to withstand harsh industrial environments. As a member of the Intel IoT Solutions Alliance, Maxtang is committed to delivering high-quality products at a competitive price to meet the needs of its customers.

Linux

ubuntu Linux
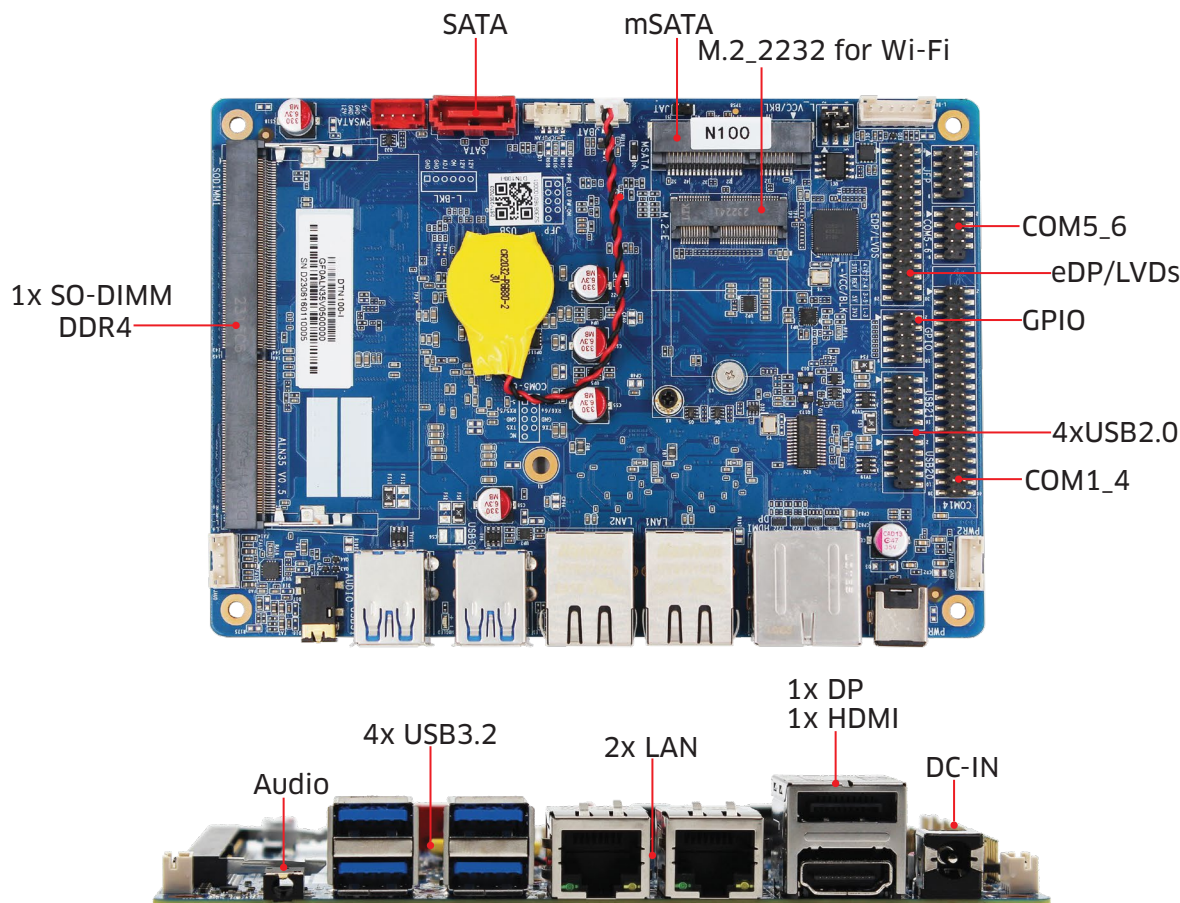
Windows

H/W Monitor   Watchdog

GPIO   Brightness

I/O Interfaces

SATA   mSATA   M.2_2232 for Wi-Fi

1x SO-DIMM DDR4

COM5_6
eDP/LVDs
GPIO
4xUSB2.0
COM1_4

Audio   4x USB3.2   2x LAN   1x DP 1x HDMI   DC-IN

Technical Specifications

Category	Item	Spec 1	Spec 2	Spec 3
Processor	CPU	i3-N305	N100	N97
	Total Cores/Threads	8C/8T	4C/4T	4C
	Max Turbo Frequency	3.80GHz	3.40GHz	3.60GHz
	Intel® Smart Cache	6MB	6MB	6MB
	TDP	15W	6W	12W
	BIOS	AMI UEFI BIOS		
Memory	Type	Single Channel SO-DIMM DDR4		
	Max. Capacity	32GB		
Display	GPU	Intel Integrated Graphics based on CPU		
	Display via	1xHDMI2.0 + 1xDP+1x eDP/LVDs		
Ethernet	Speed	10/100/1000Mpbs		
	Controller	Intel i210		
	Interface	2xRJ45		
	Wake on LAN	Yes		
Audio	Audio Codec	Realtek HD		
	Interface	1xCTIA Line-out + Mic-in in one, supports power amplifier		
Hardware		CPU system temperature, on-board DC-in voltage, watchdog, auto power on		
Storage	mSATA	1x mSATA for SSD/4G		
	SATA3.0	1x SATA3.0		
Expansion	M.2	1x M.2_E for Wi-Fi, Support CNVi		
I/O Interface	COM	Default: 4*RS232+2*RS485(COM5_6)		
		Optional: 6*RS232		
	USB3.2	4		
	USB2.0	4*header		
	Audio	1xCTIA (Line-out+Mic-in)		
	GPIO	8		
Dimension	Size	146 mm x 102mm		
	Board Type	3.5" Disk Size SBC		
Power	Standard Port	12V-35V DC-IN		
	Peripheral Input	For Fan and SATA		
	LED Indicator	Power Indicator		
Temperature	Operating Temp.	-20℃ to 60℃		
	Storage Temp.	-40℃ to 80℃		
Operating System		Win10/11 64bit, Linux 64bit		

Functional Block Diagram
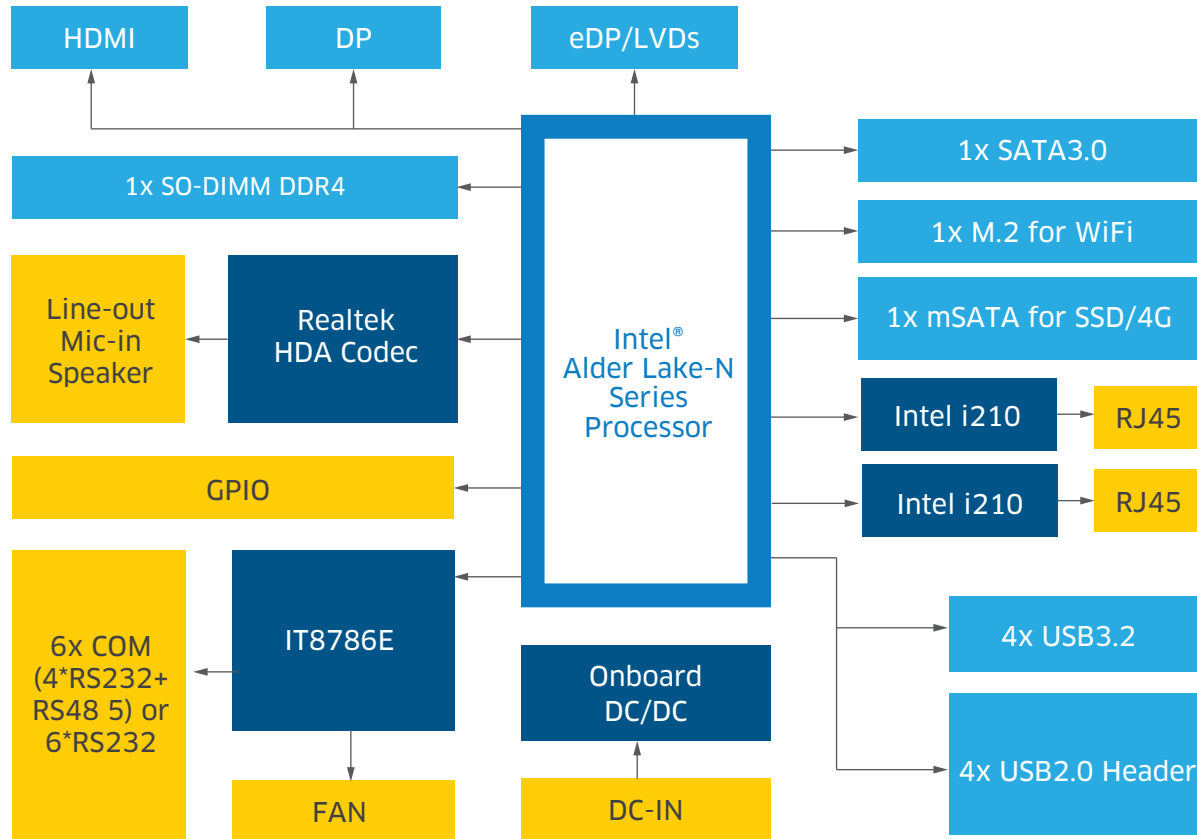
Order Information

Model Name	Description
DTN100-I	DT Intel N100 ALN35V05 1DDR4 2LAN(i210) 4*RS232 2*RS485 DP+HDMI+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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SHENZHEN MAXTANG COMPUTER CO. LTD.
6/F, Bldg 3, Honghui Indl Park, Liuxian 2nd Road, Bao'an Dist, Shenzhen, China 518101
Tel.: +86 755 86143003 I Fax: +86 755 86143003 I sales@datangpc.com

www.maxtangpc.com