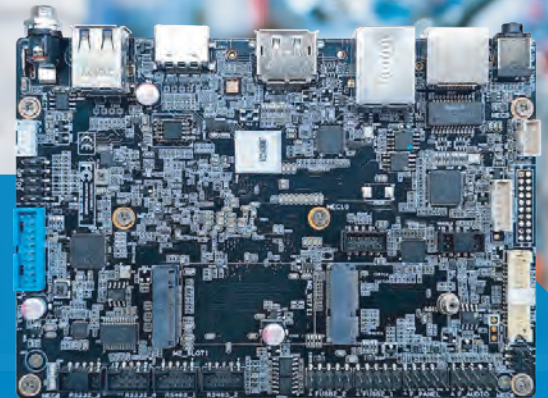


IB3-281

ALDER LAKE-N 3.5INCH SBC



Intel® Alder Lake-N
Atom / N-series processors



1 x DP (3840 x 2160 @30 Hz)
1 x LVDS (1920 x 1200 @60 Hz)



Support Wi-Fi/BT module



3.5inch form-factor
146 mm x 102 mm (5.75" x 4.02")

CPU

CPU	Intel® Atom® x7211E processor Intel® Processor N97
Frequency	3.20 GHz /3.60 GHz
Chipset	SoC
Processing Units	2 Cores /4 Cores
Scenario Design Power	6 W /12 W

System

GPU	Intel® UHD Graphics
Graphic Engine	DirectX 12.1, OpenGL 4.0, OpenCL 1.2
System Memory	8 GB, Onboard LPDDR5-4800 MHz (Optional: 16GB)
Storage	1 x M-Key M.2 (2242) PCIe3.0 X2 for SSD
TPM	Software TPM2.0
Watchdog Timer	Yes
Auto Power On	Yes
RTC	Set up independently every day, a week as a cycle
Power Requirement	Lockable DC-IN, 12 V ~ 24 V, 45 W
Dimensions	146 mm x 102 mm (5.75" x 4.02")
Cooling System	Fanless, passive cooling
Operating System	Windows 10 (64bit) /Windows 11 (64bit) Linux Ubuntu (64bit)
Storage Temperature	-40°C ~80°C (-40°F~176°F)
Operating Temperature	-20°C ~60°C (-4°F~140°F) @0.7m/s Air Flow
Humidity	95% @ 60°C (non-condensing)

Network

Network Controller	1 x Intel Ethernet Controller I226-V 1 x Intel Ethernet Controller i210-AT
Wi-Fi/BT	1 x E-Key M.2 (2230) for Wi-Fi/BT, support Wi-Fi 5, Wi-Fi 6/6E (CNVi)
Mobile Network	NA

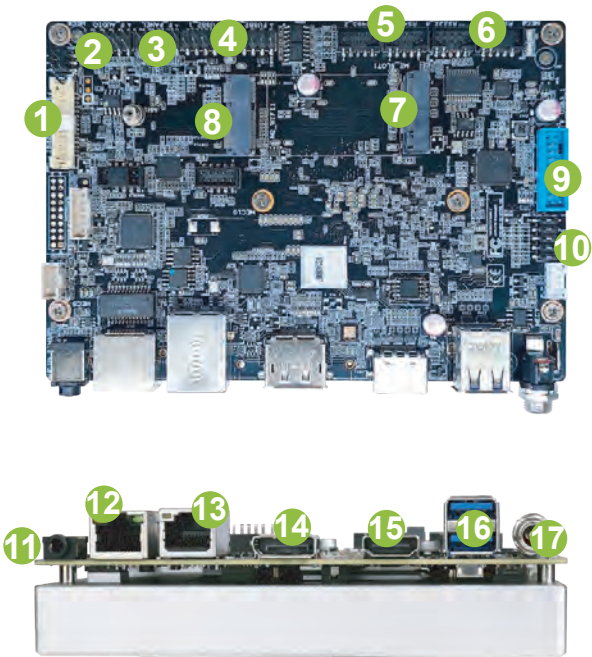
Rear I/O

USB	2 x USB3.2 Gen1
Display Interface	1 x HDMI (Max.3840 x 2160 @60 Hz) 1 x DP (Max.4096 x 2160 @60 Hz) colay VGA
Ethernet Interface	1 x 2.5 GbE RJ45, 1 x 1 GbE RJ45
Audio	1 x 2-in-1 Headset (MIC-IN & AUDIO-OUT)

Internal I/O

USB	1 x USB3.2 Gen1, signal by 2 x 10pin header 4 x USB2.0, signal by 2 x 2 x 5pin header
Display	2 x 15pin dual channel 24bit LVDS (Max. 1920 x 1200 @60 Hz), eDP colay with LVDS
Serial port	4 x RS232, signal by 4 x 5pin header 2 x RS485, signal by 2 x 5pin header
GPIO	4 x GPI, 4 x GPO
Audio	2 x 5pin F_Audio, 1 x 4pin SPEAKER
Others	1 x 6pin INVERTER, 1 x 4pin DC-IN

Dimensions and Drawing



No.	Dimensions
1	LVDS
2	F_AUDIO
3	F_PANEL
4	2*USB2.0
5	2*RS485
6	2*RS422
7	M-KEY M.2
8	E-KEY M.2
9	USB3.2 GEN1
10	GPIO
11	HEADSET
12	1 GbE RJ45
13	2.5 GbE RJ45
14	DP
15	HDMI
16	2*USB3.2 GEN1
17	DC-IN

Optional

Operation System	Windows 11 (64bit)
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