



IB2-281

ALDER LAKE-B PICO-ITX SBC



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



1 x HDMI, 1 x LVDS
Up to 3840 x 2160 @60 Hz



Support Wi-Fi/BT module



Pico-ITX form-factor
100 mm x 72 mm (3.94" x 2.83")

CPU

CPU	Intel® processor N100
	Intel® Core i3-N305 Processor
	Intel® Atom® x7211E Processor
Chipset	SoC
Total Cores	4 Cores /8 Cores /2 Cores
Processing Units	4 /8 /2
Scenario Design Power	6 W /9 W /6 W

System

GPU	Intel® UHD Graphics
Graphic Engine	DirectX 12.1, OpenGL 4.0, OpenCL 1.2
System Memory	Up to 16 GB, 1 x SO-DIMM DDR5-4800 MHz
Storage	1 x M-Key M.2 (2242) PCIe3.0 X2 for SSD
TPM	Optional: TPM2.0
Watchdog Timer	Yes
Auto Power On	Yes
RTC	Set up independently every day, a week as a cycle
Power Requirement	DC-IN, 12 V
Dimensions	100 mm x 72 mm (3.94" x 2.83")
Cooling System	Fanless, passive cooling
Operating System	Windows 10 (64bit) /Windows 11 (64bit) Linux Ubuntu (64bit)
Operating Temperature	0°C ~60°C (32°F~140°F) @0.7m/s Air Flow
Humidity	95% @ 60°C (non-condensing)

Network

Network Controller	1 x Intel Ethernet Controller I226-V
Wi-Fi/BT	1 x E-Key M.2 (2230) for Wi-Fi/BT
Mobile Network	NA

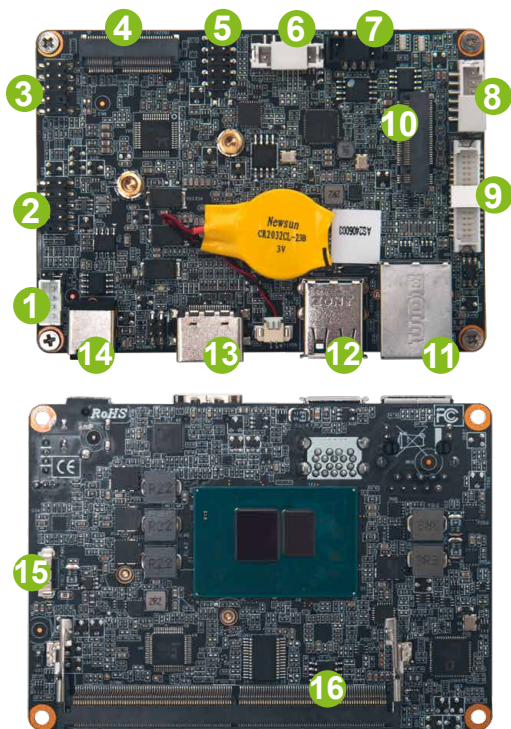
Rear I/O

USB	2 x USB3.2 Gen1
Display Interface	1 x HDMI (Max.3840 x 2160 @30 Hz)
Ethernet Interface	1 x 2.5GbE RJ45

Internal I/O

USB	2 x USB2.0, signal by 1 x 9pin USB header
Display	1 x 30pin dual channel 24bit LVDS (Max. 1920 x 1200 @60 Hz)
Serial port	1 x RS232, signal by 1 x 9pin COM header 1 x TP_I2C
GPIO	4 x GPI, 4 x GPO
Audio	1 x 9pin F_Audio
Others	1 x 6pin INVERTER, 1 x 4pin DC-IN

Dimensions and Drawing



No.	Dimensions
1	DC-IN
2	USB2.0 Header
3	F_AUDIO
4	M.2 (2230)
5	GPIO
6	TP_I2C
7	COM Header
8	INVERTER
9	LVDS
10	M.2 (2242/3042/3052)
11	2.5GbE RJ45
12	2*USB3.2 Gen1
13	HDMI
14	DC-IN
15	CPU_Fan
16	SO-DIMM

Order information

IB2-281-X7211E40N0G-GIA	CPU: Intel® Atom® x7211E processor	Memory: NA	Storage: NA
IB2-281-X7211E53N8G-GIA	CPU: Intel® Atom® x7211E processor	Memory: 8 GB	Storage: 256 GB
IB2-281-N100XX40N0G-GIA	CPU: Intel® Atom® x7211E processor	Memory: 8 GB	Storage: 256 GB
IB2-281-N100XX53N8G-GIA	CPU: Intel® Atom® x7211E processor	Memory: 8 GB	Storage: 256 GB
Accessory	Part Number: 89R0230021P00, ROHS USB2.0 Cable, USB type-A receptacle to 2 x 5pin PH2.54, 250mm Part Number: 89R0190015P01, ROHS COM Cable, DB9 to 2 x 5pin PH2.0 jumper wire, 300mm		

Optional

Operation System	Windows 11 (64bit)
------------------	--------------------