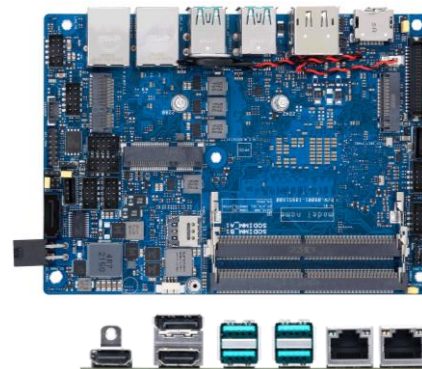


# C3121ES-IM-AA

3.5" SBC, Intel® Core™ i3 Processor, DDR5 SO-DIMM, DP, HDMI, LVDS, Dual-LAN, Multiple COM, 9-36V DC

## Features

- Up to 4 COM ports, includes 2 x RS-232/422/485, 2 x RS232
- Supports 4 display configuration by multiple interface: DP/HDMI\*2/LVDS
- Supports I2C, SMBus and GPIO
- Wide temperature range endurance: -20~60 °C



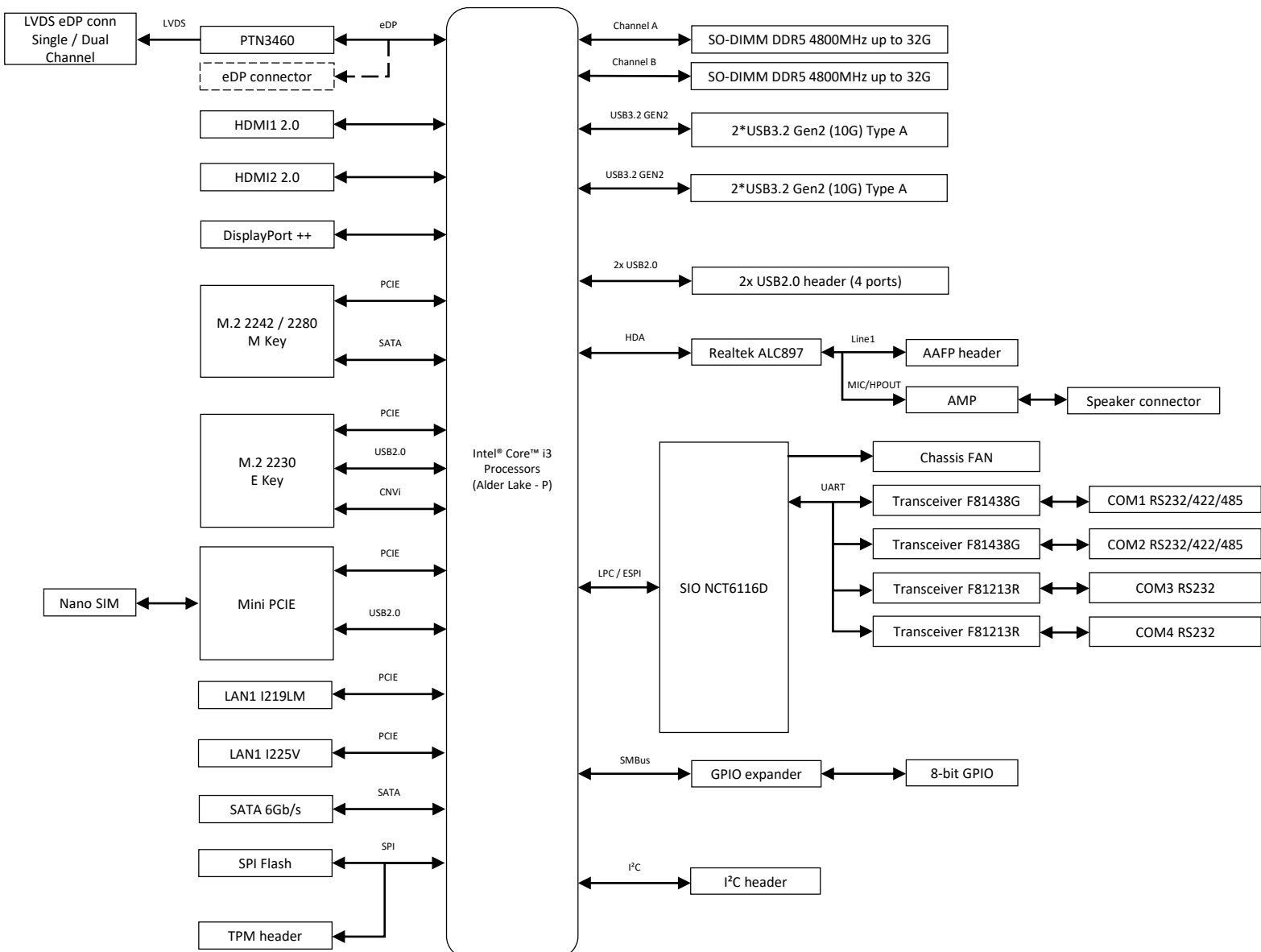
## Specifications

<b>Processor System</b>	CPU (Alder Lake-P UE series)	Intel® Core™ i3-1215UE Processor (SoC) ,15W, 6 Core
	MAX. SPEED	6GHz
	L2 Cache	4MB
	CHIPSET	Integrated
<b>Memory</b>	Technology	DDR5 4800 MHz
	Max.	64GB
	Socket	2 x SO-DIMM
<b>Display</b>	Controller	Intel® Iris® Xe Graphics
	HDMI	2, Supports HDMI 2.0, up to 4096 x 2160 @ 60 Hz
	Display Port	1, Supports DP 1.2, up to 4096 x 2304 @ 60 Hz
	LVDS	1 (colay with eDP)
	Embedded Display Port	1, Support eDP 1.4b (co-lay with LVDS, reserved, support by request)
<b>Expansion Slot</b>	Multi Display	HDMI + HDMI + DP + LVDS, HDMI + HDMI + DP + eDP
	Mini PCIe	1 x Full-Length Mini PCIe slot (with on-board Nano-SIM socket*1)
<b>Ethernet</b>	M.2	1 x M.2 Socket 1 with E key, type 2230 for WIFI/BT device and Intel® CNVi (2*PCIe x1) 1 x M.2 Socket 3 with M key, type 2242/2280 Gen 4 (PCIe x4 & SATA mode)
	Speed	10/100/1000Mbps/2.5G
	Controller	1 x Intel® i219LM, supports vPRO/WOL/PXE 1 x Intel® i225V, supports WOL/PXE
<b>Audio</b>	Connector	2 x RJ-45
<b>Storage</b>	Codec	Realtek ALC897 High Definition Audio
<b>Rear I/O</b>	SATA port	1 x SATA 6Gb/s connector
	Display Port	1
	HDMI	2
	USB3.2 gen2	4 (10G)
	LED (Back)	Power status, HDD R/W
<b>Internal Connector</b>	Ethernet	2
	Serial Port	4 x header (2 x RS232/422/485 w/ ring, 1 x RS232 w/ Ring/5V/12V, 1 x RS232 w/ring)
	USB2.0	1 x header support additional 2 x USB2.0 connectors
	Chassis fan header	1
	Front Panel Audio Header	1
	Internal Stereo Speaker Header	1 (4-pin), with AMP IC
	System panel header	1
	SATA power header	1(4-pin)
	GPIO header	1 (8 bit)
	SMBus header	1, 4pin
I2C header	1, 3pin	
<b>Internal Jumper</b>	Power connector	1 x 4-pin ATX power connector
	Clear CMOS jumper	1, 2pin
	AT/ATX select jumper	1, 2pin
	Chassis Intrusion connector	1, 2pin
	LVDS Panel Power Selection jumper	1, 3pin
	COM Debug header	1, 3pin
COM RS232 Ring/5V/12V Selection jumper	1, 6pin	

## Specifications

<b>Watchdog Timer</b>	BIOS	Yes
<b>Security</b>	TPM	SPI TPM header
<b>Power</b>	Power Type	DC input
	Power Conn	ATX 2x2 pin (Jack to 4pin cable, accessory by request)
	Voltage	9-36V DC input
<b>Operating System</b>	Microsoft Windows	Win10 IoT Enterprise 2021 LTSC
	Linux	Ubuntu, Linux Yocto
<b>Environment</b>	Operating Temperature	-20~60° C
	Non-Operating Temperature	-40~85° C
	Relative Humidity	Operating: 40° C @95% relative humidity, non-condensing Non-operating: 60° C @95% relative humidity, non-condensing
<b>Dimension</b>	Form Factor	3.5", 146 x 105 mm
<b>Certification</b>	EMC, Safety	CE, FCC, BSMI, VCCI, ISED, EN62368

## Block Diagram



## Ordering Information

Model Name	Part Number	Description
C3121ES-IM-AA	90ME05X0*	C3121ES, DDR5, DP, HDMI, LVDS,MB

## Packing List

Part number	Description	Quantity
14013*	SATA CABLE	1
14011*	COM CABLE	1

\* The part number might vary due to part number revision.