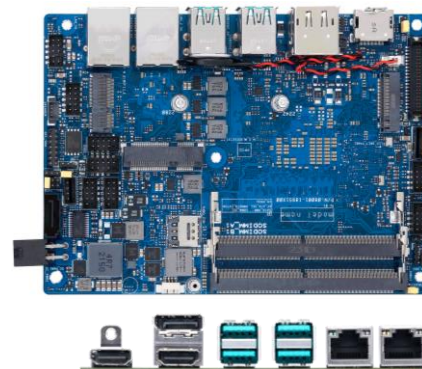


C3121ES-IM-AA

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



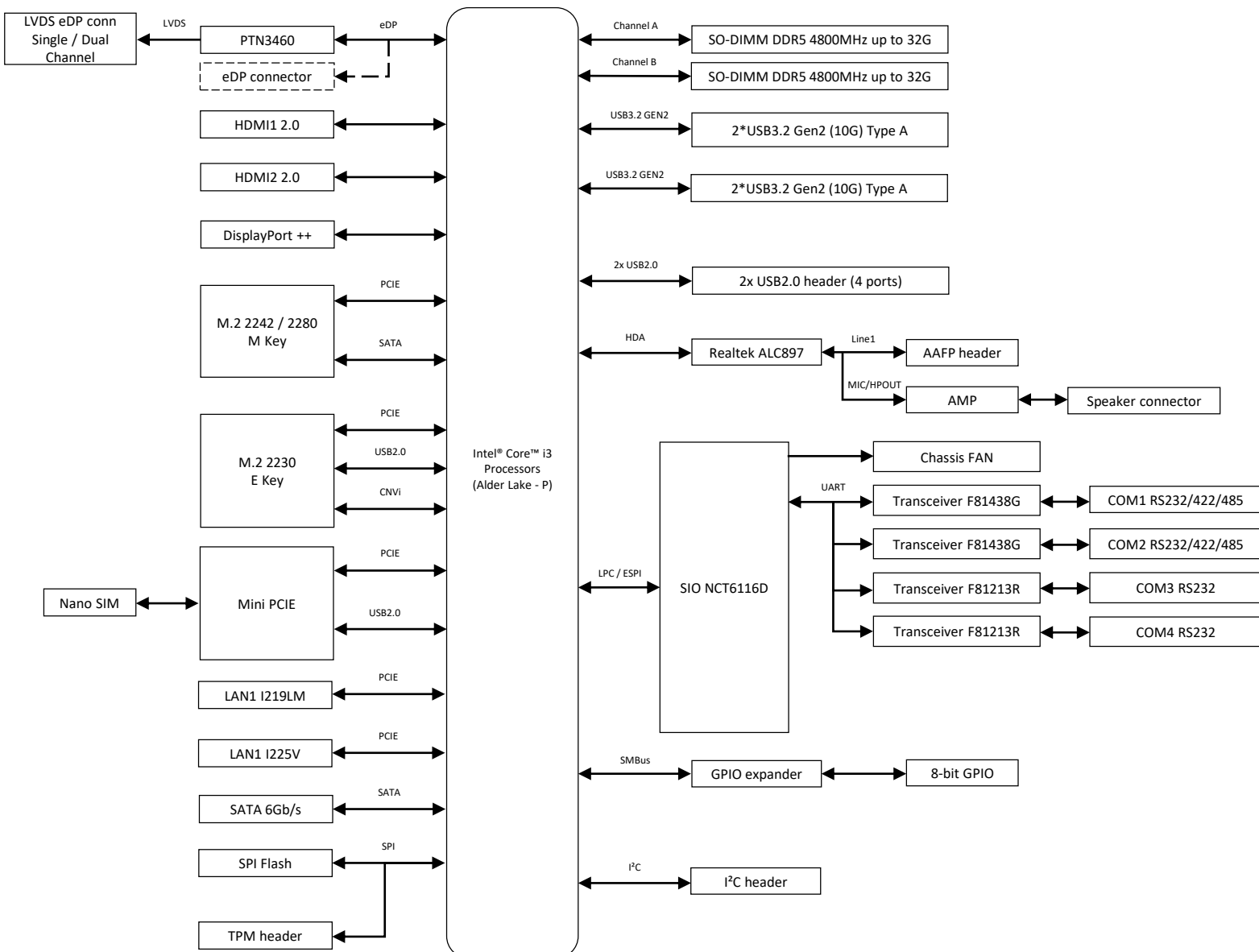
Specifications

Processor System	CPU (Alder Lake-P UE series)	Intel® Core™ i3-1215UE Processor (SoC) ,15W, 6 Core
	MAX. SPEED	6GHz
	L2 Cache	4MB
	CHIPSET	Integrated
Memory	Technology	DDR5 4800 MHz
	Max.	64GB
	Socket	2 x SO-DIMM
Display	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)
	Multi Display	HDMI + HDMI + DP + LVDS, HDMI + HDMI + DP + eDP
Expansion Slot	Mini PCIe	1 x Full-Length Mini PCIe slot (with on-board Nano-SIM socket*1)
	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)
Ethernet	Speed	10/100/1000Mbps/2.5G
	Controller	1 x Intel® i219LM, supports vPRO/WOL/PXE 1 x Intel® i225V, supports WOL/PXE
	Connector	2 x RJ-45
Audio	Codec	Realtek ALC897 High Definition Audio
Storage	SATA port	1 x SATA 6Gb/s connector
Rear I/O	Display Port	1
	HDMI	2
	USB3.2 gen2	4 (10G)
	LED (Back)	Power status, HDD R/W
	Ethernet	2
Internal Connector	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
	Power connector	1 x 4-pin ATX power connector
Internal Jumper	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

Watchdog Timer	BIOS	Yes
Security	TPM	SPI TPM header
Power	Power Type	DC input
	Power Conn	ATX 2x2 pin (Jack to 4pin cable, accessory by request)
	Voltage	9-36V DC input
Operating System	Microsoft Windows	Win10 IoT Enterprise 2021 LTSC
	Linux	Ubuntu, Linux Yocto
Environment	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
Dimension	Form Factor	3.5", 146 x 105 mm
Certification	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

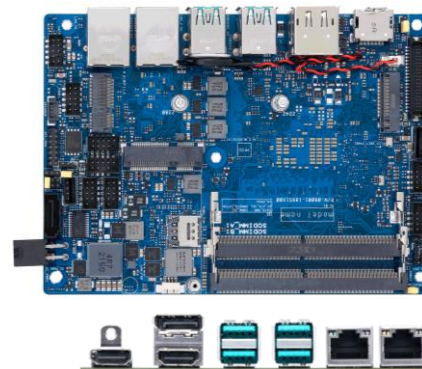
* The part number might vary due to part number revision.

C5124ES-IM-AA

3.5" SBC, Intel® Core™ i5 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



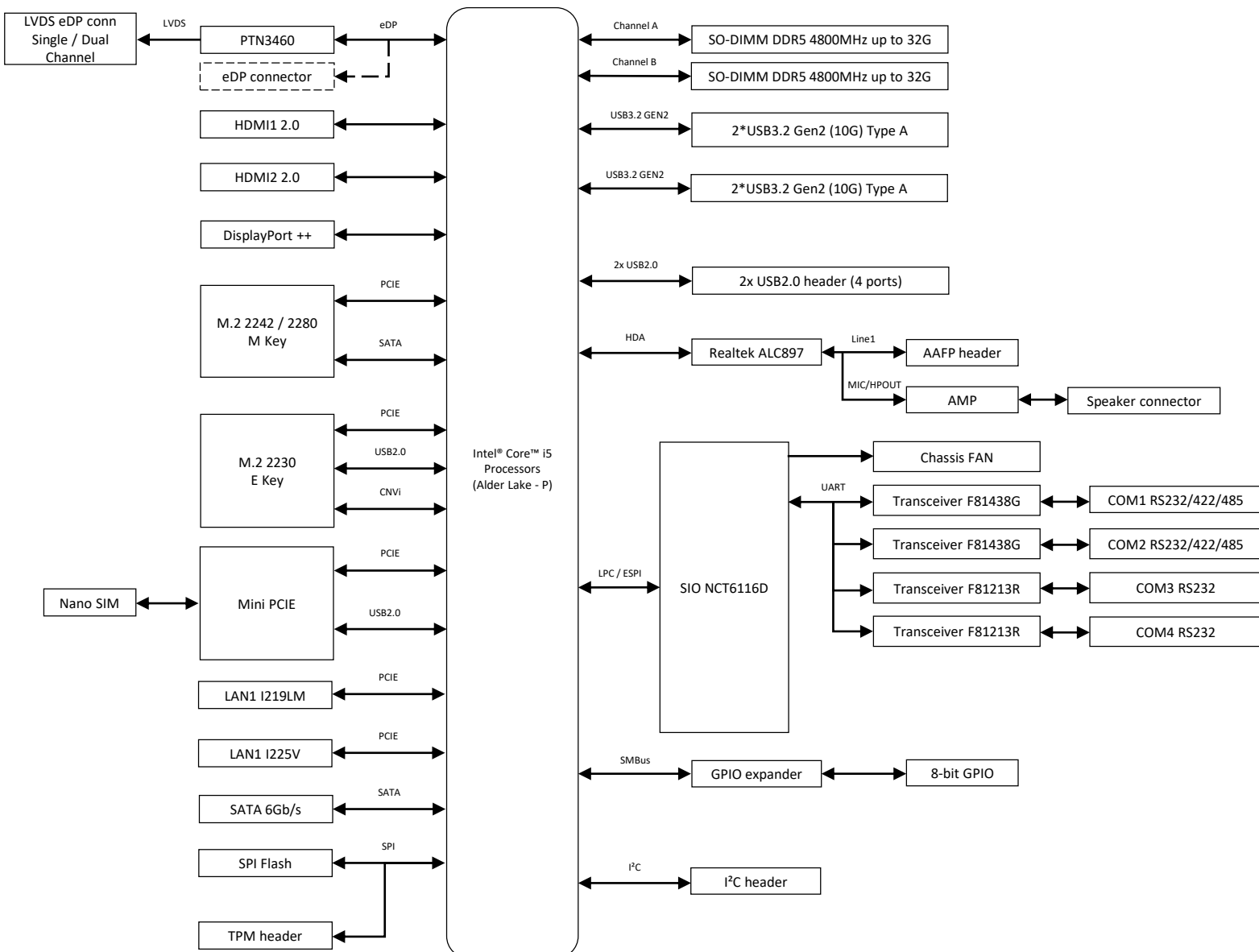
Specifications

Processor System	CPU (Alder Lake-P UE series)	Intel® Core™ i5-1245UE Processor (SoC) ,15W, 10 Core, vPro supported
	MAX. SPEED	6GHz
	L2 Cache	4MB
	CHIPSET	Integrated
Memory	Technology	DDR5 4800 MHz
	Max.	64GB
	Socket	2 x SO-DIMM
Display	Controller	Intel® Iris® X ^e 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)
Expansion Slot	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)
Ethernet	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
Audio	Connector	2 x RJ-45
Storage	Codec	Realtek ALC897 High Definition Audio
Rear I/O	Storage	1 x SATA Gen 6Gb/s connector
	Display Port	1
	HDMI	2
	USB3.2 gen2	4 (10G)
	LED (Back)	Power status, HDD R/W
Internal Connector	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	
Internal Jumper	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

Watchdog Timer	BIOS	Yes
Security	TPM	SPI TPM header
Power	Power Type	DC input
	Power Conn	ATX 2x2 pin (Jack to 4pin cable, accessory by request)
	Voltage	9-36V DC input
Operating System	Microsoft Windows	Win10 IoT Enterprise 2021 LTSC
	Linux	Ubuntu, Linux Yocto
Environment	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
Dimension	Form Factor	3.5", 146 x 105 mm
Certification	EMC, Safety	CE, FCC, BSMI, VCCI, ISED, EN62368

Block Diagram



Ordering Information

Model Name	Part Number	Description
C5124ES-IM-AA	90ME05Y0*	C5124ES, DDR5, DP, HDMI, LVDS,MB

Packing List

Part number	Description	Quantity
14013*	SATA CABLE	1
14011*	COM CABLE	1
14014*	AUDIO CABLE	1
14017*	POWER CABLE	1

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