

Datasheet

ASUS IoT

X742ES-IM-AA

3.5" SBC, Intel® Atom® x7425E Processor (ADL N platform)

Version 1.0

dd.mm.yyyy

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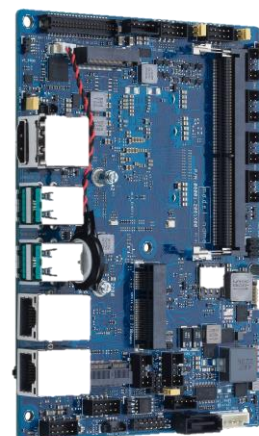
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X742ES-IM-AA

3.5" SBC, Intel® Atom® x7425E Processor (ADL-N platform), DDR5 SO-DIMM, DP, HDMI, eDP/LVDS, Dual-LAN, Multiple COM, USB3.2, M.2, SATA 3.2, PCIE 3.0, TPM

Features

- Supports 3x display configuration by multiple interface: HDMI, DP, eDP/LVDS
- Intel Gen 12 UHD Graphics, up to 4K/60 hz
- 6 COM, 2x RS-232/422/485 and 4x RS-232
- M.2 E-key 2230, M-key 2280/2242, SATA 3.2
- Dual-LAN and Nano SIM



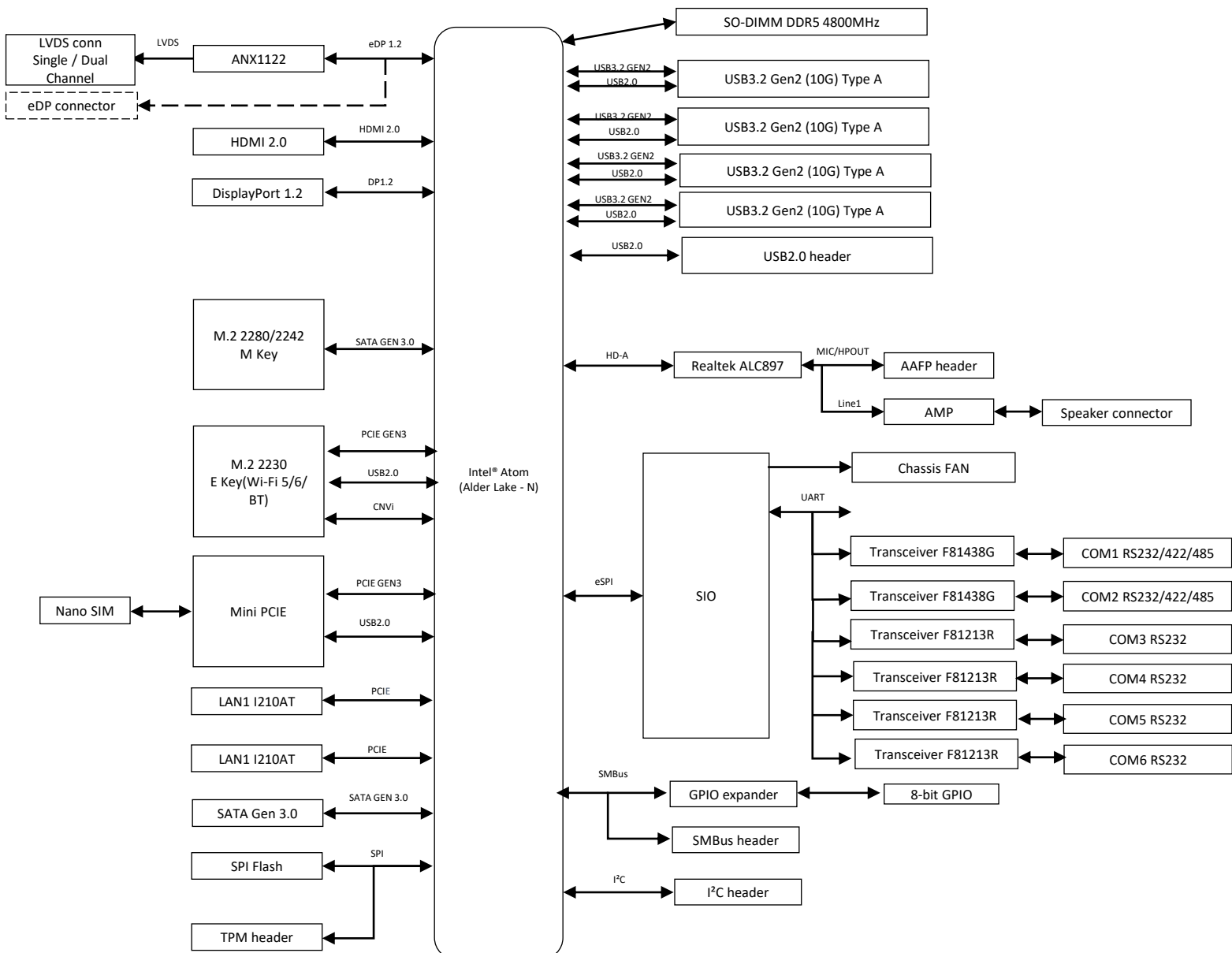
Specifications

Processor System	CPU	Intel® Atom® x7425E Processor
	Cores	4
	TDP	12W
	Base Frequency	1.5 GHz
	Max. Turbo Frequency	3.5 GHz
Memory	Technology	DDR5 4800 MT/s, In-Band ECC (IBECC)
	Max.	16GB
	Socket	SO-DIMM
Display	Controller	Intel Gen 12 UHD Graphics
	HDMI	1, Supports HDMI 2.0 up to 4K x 2K @ 60 Hz
	Display Port	1, Supports DP1.2 up to 4096 x 2304 @ 60 Hz
	Embedded DisplayPort	1, Supports eDP1.2 (co-lay with LVDS)
	LVDS	1, Supports 1920 x 1080 @ 60 Hz (co-lay with eDP)
	Multiple Display	3 Display Configuration: HDMI+DP+LVDS/eDP
Expansion Slot	Mini PCIe	1 x Full-Length Mini PCIe slot with on-board Nano-SIM socket
	M.2	1 x M.2 Socket 1 with E key, type 2230 for TPU/WIFI/BT device (PCIe/USB/CNVi)
		1 x M.2 Socket 3 with M key, type 2280/2242 (SATA mode)
Ethernet	Speed	10/100/1000Mbps
	Controller	2 x Intel® i210AT, supports WOL/PXE
	Connector	2 x RJ-45
Audio	Codec	Realtek® ALC897
Storage	SATA port	1 x SATA Gen 3.2, up to 6 Gb/s
Rear I/O	HDMI	1
	Display Port	1
	USB3.2 Gen2	4 (10 Gb/s)
	Ethernet	2
Internal Connector	Serial Port	6 (2 x RS-232/422/485, 4x RS-232)
	USB2.0	2
	Chassis Fan Header	1 (PWM+DC Mode)
	Chassis Intrusion Header	1
	Front Panel Audio Header (AAFP)	1
	System Panel Header	1 (10-1 Pin)
	Clear CMOS Jumper	1
	SATA Power Header	1
	SMBus Header	1
	I ² C Header	1
	GPIO Header	1 (8-bit)
Power Connector	1 x 4-pin Power Connector	

Specifications

Watchdog Timer	H/W	YES
Security	TPM	1 x SPI TPM header; Intel® PTT
	Platform Integrity	Intel® OS Guard; Intel® Boot Guard
Power	Power Type	DC power input
	Voltage	9V-36V
Operating System	Microsoft Windows	Windows® 10 (64bit)/Windows 10 IoT Enterprise
	Linux	Ubuntu, RedHat Enterprise
Environment	Operating Temperature	0~ 60°C
	Non-Operating Temperature	-40~85°C
	Relative Humidity	10%~95%
Dimension	Form Factor	3.5", 146 x 105 mm
Certification	Safety	CB, BSMI, CE-LVD
	EMC	CE, FCC, VCCI, BSMI, RCM
	Green	GA (RoHS)

Block Diagram



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