

Datasheet

ASUS IoT

X621ES-IM-AA

**3.5" SBC, Elkhart Lake platform, Processor, DDR4 SO DIMM,
DP, HDMI, LVDS, Dual LAN, Multiple COM, 9-36V DC input**

Version 1.0

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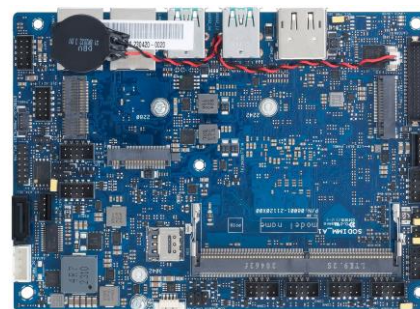
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X621ES-IM-AA

3.5" SBC, Intel Atom® Processor, DDR4 SO-DIMM, DP, HDMI, LVDS, Dual-LAN, Multiple COM, 9-36V DC-in put

Features

- Up to 6 COM ports, includes 2 x RS-232/422/485, 4 x RS232
- Supports 3 display configuration by multiple interface: DP/HDMI/LVDS
- Supports I2C, SMBus and GPIO
- Wide temperature range endurance: -40~85 °C



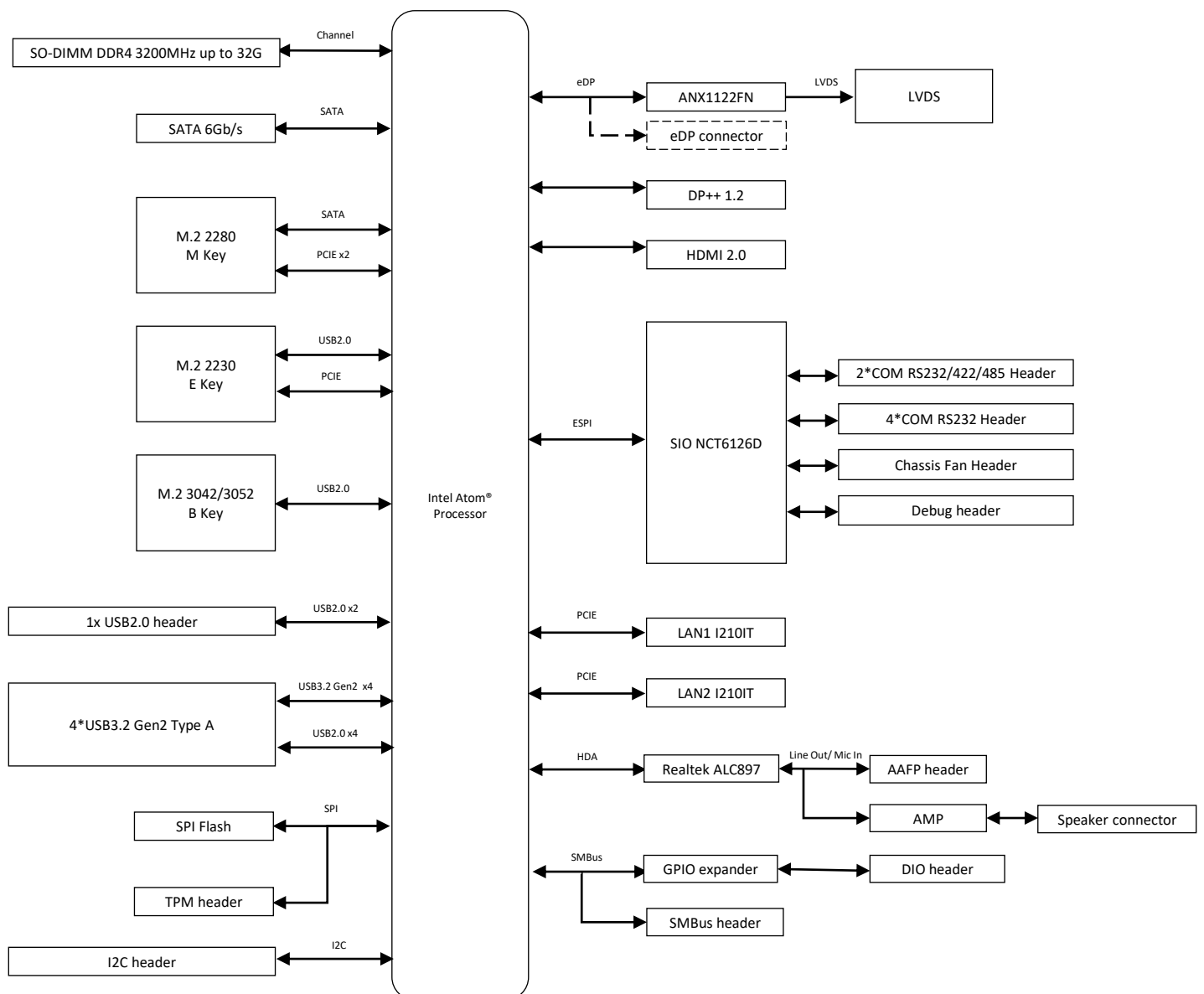
Specifications

Processor System	CPU	Intel Atom® x6211E
	TDP	6W
	# of Cores	2
	Base Freq.	1.3 GHz
Memory	Max Turbo Freq.	3.0 GHz
	Technology	DDR4 3200 MHz, In-Band ECC (IB ECC)
	Max.	32GB
	Socket	1 x SO-DIMM
Display	HDMI	1, Supports HDMI 2.0 up to 4K x 2K @ 60 Hz
	Display Port	1, Supports DP++1.2 up to 4096 x 2160 @ 60 Hz
	Embedded Display Port	1, Supports eDP1.2 (co-lay with LVDS)
	LVDS (default)	1, Supports 1920 x 1080 @ 60 Hz (co-lay with eDP)
Expansion Slot	Multi Display	3 Display Configuration: HDMI+DP+LVDS/eDP
	M.2	1 x M.2 2230 E key socket (USB2.0, PCIe) supports Wi-Fi/BT module
		1 x M.2 2280 M key socket (SATA, PCIe) supports M.2 SSD/PCIe mode
1 x M.2 3042/3052 B key (USB 2.0) supports LTE connected to Nano-SIM socket		
Ethernet	Speed	10/100/1000Mbps
	Controller	2 x Intel® i210-IT, supports WOL/PXE
	Connector	2 x RJ-45
Audio	Codec	Realtek ALC897 High Definition Audio
Storage	SATA port	1 x SATA Gen 3.0, up to 6Gb/s
Rear I/O	HDMI	1
	Display Port	1
	USB 3.2 Gen2	4 (Type A)
	LED (Back)	Power status, HDD R/W
	Ethernet	2
Internal Connector & Jumper	Serial Port	6 (2 x RS-232/422/485, 4 x RS-232)
	USB2.0	1 x Header support additional 2 x USB2.0 connectors
	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
	COM Debug Header	1
	SMBus Header	1
	I ² C Header	1
	GPIO Header	1 (8-bit)
	AT/ATX jumper	1
	AMP header	1
	Power Connector	1 x 4-pin ATX Power Connector

Specifications

Watchdog Timer	S/W	YES
Security	TPM	1 x SPI TPM header
Power	Power Type	DC power input
	Voltage	9V-36V
Operating System	Microsoft Windows	Windows 10 IoT Enterprise
	Linux	Ubuntu
Environment	Operating Temperature	-40~85°C
	Non-Operating Temperature	-40~85°C
	Relative Humidity	10 to 95% (non condensing)
Dimension	Form Factor	3.5", 146 x 105 mm
Certification	EMC, Safety	CE, FCC, BSMI, VCCI, ISED, EN62368

Block Diagram



Order Information

Model name	Part number	Description
X621ES-IM-AA	90ME0790*	FCBGA1493, X6211E, HDMI, DP++, LVDS, MB

* The part number might vary for different regulations and package. Please consult the TPM in your region for exact 90PN.

Packing List

Part number	Description	Quantity
14013*	SATA 6G CABLE	1

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

Our company network supports you worldwide with offices in Germany, Austria, Switzerland, the UK and the USA. For more information please contact:

Headquarters

Germany



FORTEC
GROUP

FORTEC Elektronik AG
Augsburger Str. 2b
82110 Germering

Phone: +49 89 894450-0
E-Mail: info@fortecag.de
Internet: www.fortecag.de

Fortec Group Members

Austria



FORTEC
INTEGRATED

FORTEC Integrated GmbH Office Vienna
Nuschinggasse 12
1230 Wien

Phone: +43 1 8673492-0
E-Mail: info@fortec-integrated.de
Internet: www.fortec-integrated.de

Germany



FORTEC
INTEGRATED

FORTEC Integrated GmbH
Augsburger Str. 2b
82110 Germering

Phone: +49 89 894363-0
E-Mail: info@fortec-integrated.de
Internet: www.fortec-integrated.de

Switzerland



FORTEC
SWITZERLAND

FORTEC Switzerland AG
Bahnhofstraße 3
5436 Würenlos

Phone: +41 44 7446111
E-Mail: info@fortec.ch
Internet: www.fortec.ch

United Kingdom



FORTEC
UNITED KINGDOM

FORTEC Technology UK Ltd.
Osprey House, 1 Osprey Court
Hinchingbrooke Business Park
Huntingdon, Cambridgeshire, PE29 6FN

Phone: +44 1480 411600
E-Mail: info@fortec.uk
Internet: www.fortec.uk

USA



FORTEC
UNITED STATES

FORTEC US, Corp.
87 Raynor Avenue, Unit 1
Ronkonkoma, NY 11779

Phone: +1 631 5804360
E-Mail: info@fortec.us
Internet: www.fortec.us