

N420S-IM-AA

3.5" form factor, Intel®Pentium® N4200, DDR3L 1866, 1*M.2 E-key 2230, 1*M.2 M-key 2242, 2*GbE, 4*USB3.1, 2*USB2.0, 6*COM, 1*SATA3.0, 1*TPM, 12-24V DC

Features

- Up to 6 x COM ports (included 2 x RS-232/422/485)
- Supports 3 display configuration by multiple interface: HDMI/DP/LVDS(*eDP optional)
- Supports I2C & SMBus
- Supports operating temperature: -20~60°C



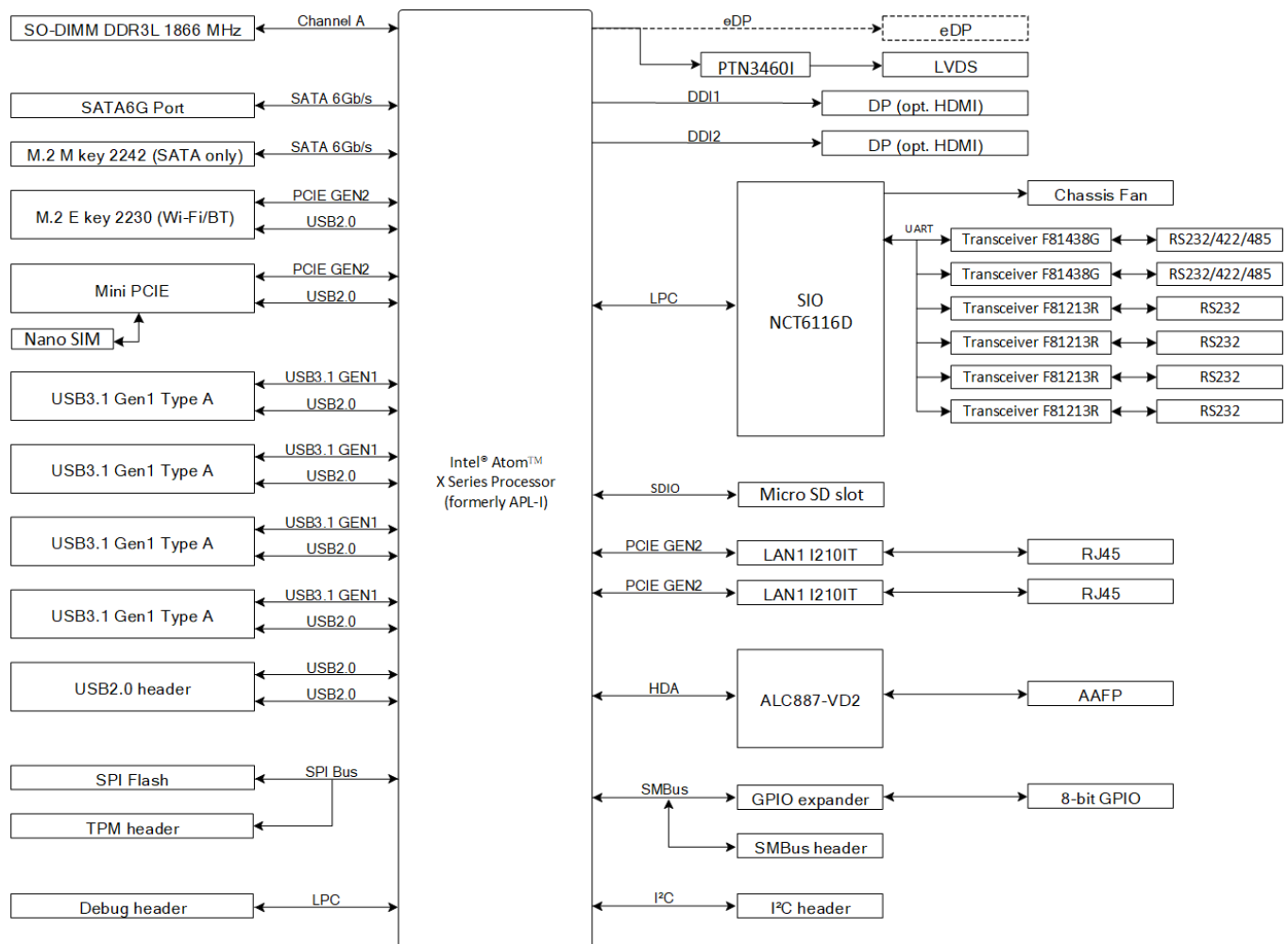
Specifications

Processor System	CPU	Intel®Pentium® N4200 Processor (Quad-Core)
Memory	Technology	DDR3L 1866/1600/1333 MHz Non-ECC, Un-buffered Memory
	Max.	8GB
	Socket	1 x SO-DIMM
Display	Controller	Intel HD Graphics 505
	HDMI	1, Supports HDMI1.4b up to 3840 x 2160 @ 30 Hz
	Display Port	1, Supports DP1.2 up to 4096 x 2160 @ 60 Hz
	Embedded DisplayPort	1, Supports eDP1.3 x4 lanes, up to 3840x2160 @ 60 Hz (co-lay with LVDS)
	LVDS	1, Supports 1920 x 1080 @ 60 Hz (co-lay with eDP)
	Multi Display	HDMI+DP+LVDS
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 WIFI/BT device 1 x M.2 Socket 3 with M key, type 2242 (SATA mode)
	Others	1 x Micro SD Card slot (on-board)
Ethernet	Speed	10/100/1000Mbps
	Controller	2 x Intel® i210IT, supports WOL/PXE
	Connector	2 x RJ-45
Audio	Codec	Realtek® ALC 897
	Connector	Line-Out, Mic-in
Storage	SATA port	1 x SATA Gen 3.0, up to 6Gb/s
Rear I/O	HDMI	1
	Display Port	1
	USB3.1 Gen1	4
	Ethernet	2
Internal Connector	Serial Port	6 (2 x RS-232/422/485, 4 x RS-232)
	USB2.0	1, 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
	LPC Debug Header	1
	SMBus Header	1
	I ² C Header	1
	GPIO Header	1 (8-bit)
	Power Connector	1 x 4-pin ATX Power Connector

Specifications

Watchdog Timer	H/W	YES
Security	TPM	1 x SPI TPM header
Power	Power Type	DC power input
	Voltage	12V-24V
Operating System	Microsoft Windows	Windows® 10 (64bit) / Windows 10 IoT Enterprise
	Linux	Ubuntu, RedHat Enterprise, Fedora Workstation
Environment	Operating Temperature	-20~60°C
	Non-Operating Temperature	-40~85°C
	Relative Humidity	0%~85%
Dimension	Form Factor	3.5", 146 x 105 mm
Certification	EMC	CE, FCC
	Safety	UL, CCC

Block Diagram



Order Information

Model name	Part number	Description
N420S-IM-AA	90ME02C0*	N4200E, MINI PCIE, HDMI, DP, 2*LAN
N420S-IM-AA	90ME02C1*	N4200E, MINI PCIE, HDMI, DP, 2*LAN, WITH HEATSINK
N420S-IM-AA	90ME02C2*	N4200E, MINI PCIE, HDMI, DP, 2*LAN, WITH HEAT SPREADER
N420S-IM-AA	90ME02C3*	N4200E, MINI PCIE, HDMI, DP, 2*LAN
N420S-IM-AA	90ME02C4*	N4200E, MINI PCIE, HDMI, DP, 2*LAN, WITH HEAT SPREADER
N420S-IM-AA R3.0	90ME0580*	N4200E, MINI PCIE, HDMI, DP, 2*LAN
N420S-IM-AA R3.0	90ME0581*	N4200E, MINI PCIE, HDMI, DP, 2*LAN, WITH HEAT SPREADER

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

* N420S-IM-AA R3.0: power switch IC co-lay with G517AH1TP1U for better supply.

Packing List

Part number	Description	Quantity
14013*	SATA 6G CABLE	1

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

Optional Accessories

Part number	Description	Quantity
13071*	HEAT SPREADER, WITH SPRING SCREW PACK (5pcs)	1

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

* The optional accessories can be configured with SBC by case. Please refer to Order Information and contact the TPM in your region if needed.