

N100I-EM-A

Intel N100, Mini-ITX Motherboard, 1*DDR4 up to 16GB, 4*USB 3.2 Gen2, 3*USB 2.0, 1*VGA, 1*HDMI, 1*LVDS, 3*COM, 2* M.2

Features

- Built-in Intel® Celeron® Quad-core Processor N100
- One DDR4 3200 MHz Non-ECC SO-DIMM up to 16GB
- 2 x SATA 6Gb/s ports, 4 x USB 3.2 Gen 1 headers, 3 x USB 2.0 headers, 3 x COM headers, 3 x COM connectors
- 1 x PCIe 3.0/2.0 x 1 slot (x1 mode), 1 x M.2 socket (E key) , 1 x M.2 socket (M key)
- Multi-display: 1 x VGA port, 1 x HDMI™ port, 1 x LVDS connector
- Wide temperature range endurance: 0–60° C



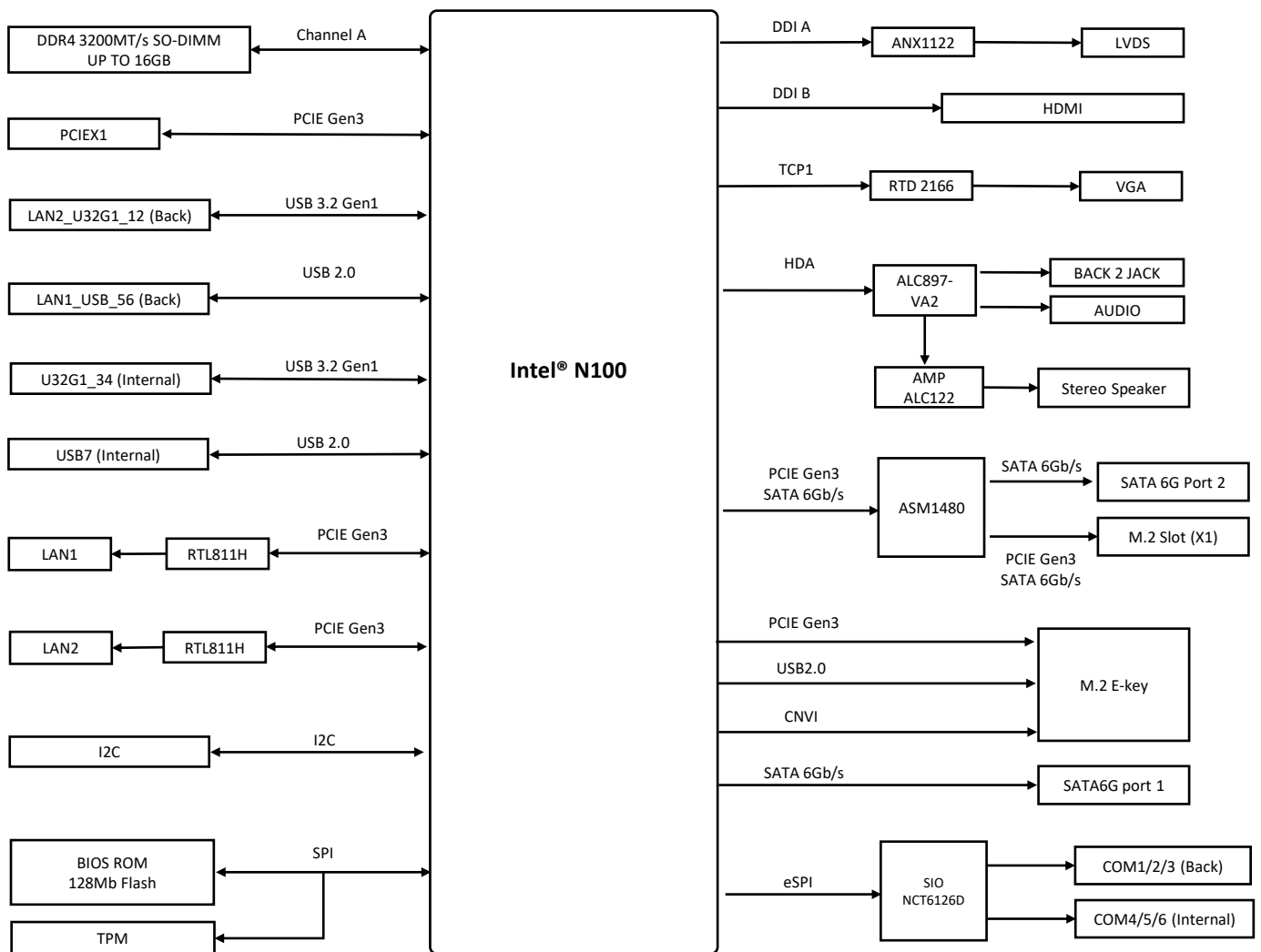
Specifications

Processor System	CPU	Intel® N100
Memory	Technology	DDR4 3200/3000/2800/2666/2400/2133 MHz, (non-ECC)
	Max.	16 GB
	Socket	1 x SO-DIMM
Display	HDMI	1, Supports HDMI 2.1, up to 3840x2160 @ 60Hz (Default),
	VGA	1, Supports up to 1920x1200 @ 60Hz (Default)
	LVDS	1, Supports up to 1920x1080 @ 60Hz (Default)
	eDP(optional by request)	1, Supports up to 1920x1080@ 60Hz (colay with LVDS)
	Triple Displays	Yes
Expansion Slot	PCIe 3.0/2.0 x1	1 (PCIe x1 mode)
	M.2	1 x E key, type 2230 for WIFI/BT device (PCIe x1 /USB2.0) 1 x M key, 2242/ 2260/ 2280 (SATA/ PCIe x1)
Ethernet	Speed	10/100/1000 Mbps
	Controller	2 x Realtek RTL8111H (Support WOL/PXE)
	Connector	2 x RJ-45
Audio	Codec	Realtek ALC897
	Connector	Line-Out, Mic-In
Storage	SATA port	2 x SATA Gen 3.0, Up to 6Gb/s (One of SATA is shared with M.2)
Rear I/O	HDMI	1
	VGA	1
	USB	2*USB 3.2 Gen1 2*USB 2.0
	Ethernet	2
	Audio jack	2
	Serial Port	1* RS-232/422/485 (Ring/5V/12V Select, switched by jumper), 2* RS-232
	DC-IN	1 (Non lockable)
Internal I/O Connectors	Serial Port Header	3 (RS232)
	USB Header	1 (support additional 2 x USB3.2 ports) 1 (support additional 1 x USB2.0 ports)
	Chassis Fan	1 (PWM)
	Front Panel Audio Header (AAFP)	1
	Front panel as Power/Reset/HDD (F_Panel)	1 (10-1 pin)
	Chassis Intrusion	1
	Speaker	1 (4 pin)
	Stereo Out	1 (4-pin, 3 watt/channel amplifier)
	Clear CMOS	1
	COM Debug Header	1 (6 pin)
	GPIO	1 (8 bit)
	LVDS Signal Header	1 (support dual channel stand type, 40 pin)
	LCD Panel Monitor Switch Header	1 (2 pin)
	LVDS Panel VCC Power Selection Jumper	1 (6 pin)
	LVDS Panel Backlight Enable Signal Selection	1 (3 pin)
LVDS Backlight Panel Header	1 (5 pin)	
Power in Connector	1 (4-pin ATX power connector, DC in mode)	

Specifications

Watchdog Timer	H/W	Yes
Security	TPM	1 x SPI TPM header
Power	Power Type	12v DC-IN
OS & Software Support	Microsoft Windows	Windows® 10 (64-bit) / Windows® IoT enterprise
	Linux	Ubuntu, RedHat Enterprise, Fedora Workstation, OpenSUSE
	ASUS IoT Suite	<input checked="" type="checkbox"/> HW Monitor <input checked="" type="checkbox"/> Power Scheduling <input checked="" type="checkbox"/> Fan Control <input checked="" type="checkbox"/> Watch Dog Timer <input checked="" type="checkbox"/> GPIO
	User Interface	<input checked="" type="checkbox"/> API <input checked="" type="checkbox"/> GUI
Environment	Operating Temperature	0 ~ 60°C
	Non-Operating Temperature	-40 ~ 85°C
	Relative Humidity	Operational humidity: 40°C@10%~95%
Mechanical	Dimensions	Mini-ITX, 170 x 170 mm
Certification	EMC	CE, FCC, VCCI, BSMI, RCM
	Safety	CE-LVD

Block Diagram



Order Information

Model name	Part number	Description
N100I-EM-A	90ME07U*	N100, DP, HDMI, VGA, Mini-ITX

* 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
13020*	IO shield	1
14013*	SATA 6G CABLE	1
13020*	M.2 SCREW PACK	1

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