

# E394S-IM-AA

3.5" form factor, Intel®Atom® x5-E3940, 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 wide temperature: -40~85 °C



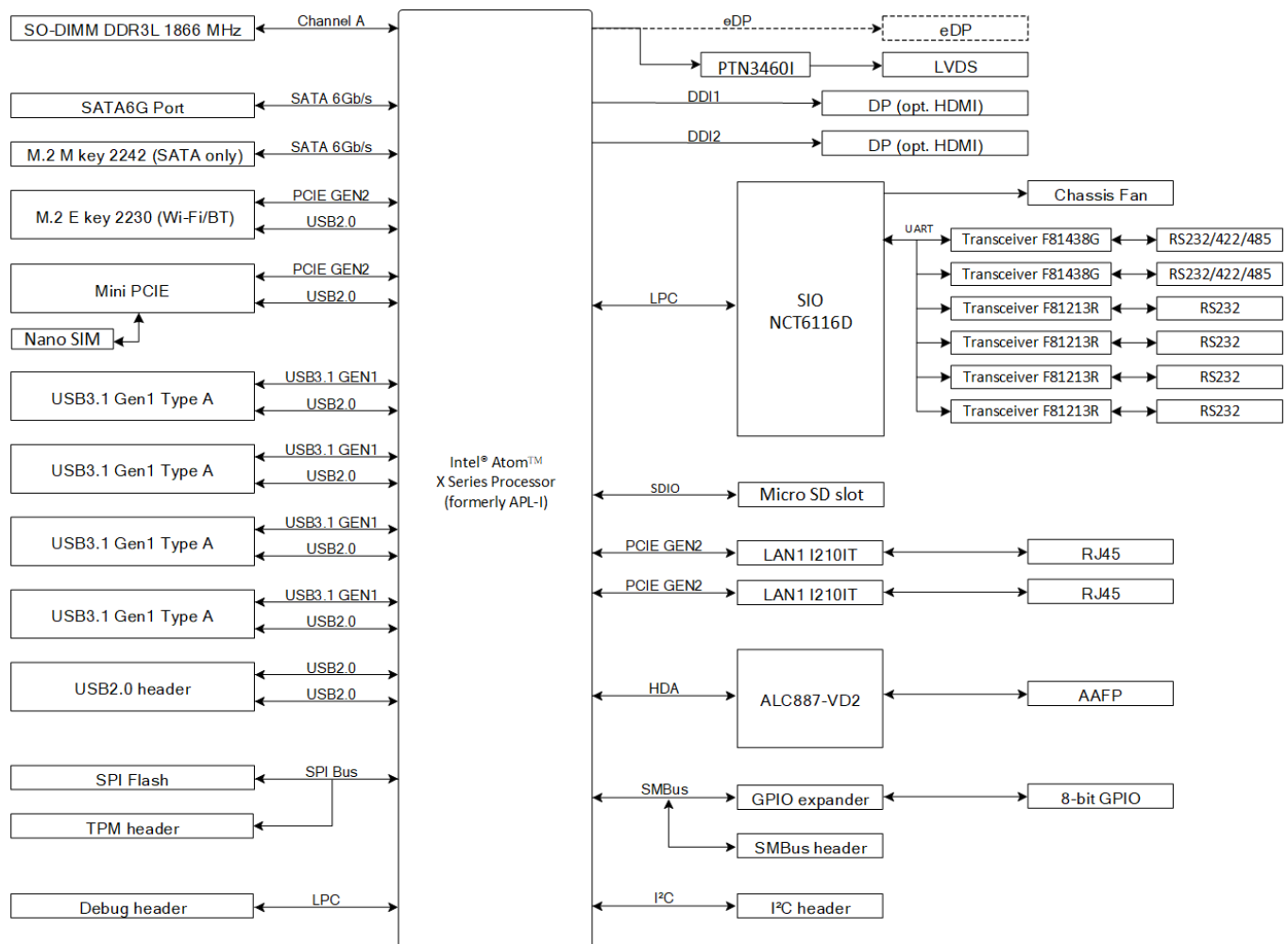
## Specifications

<b>Processor System</b>	CPU	Intel®Atom® x5-E3940 Processor (Quad-Core)
<b>Memory</b>	Technology	DDR3L 1866/1600/1333 MHz Non-ECC, Un-buffered Memory
	Max.	8GB
	Socket	1 x SO-DIMM
<b>Display</b>	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, HDMI+DP+eDP
<b>Expansion Slot</b>	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)
<b>Ethernet</b>	Speed	10/100/1000Mbps
	Controller	2 x Intel® i210IT, supports WOL/PXE
	Connector	2 x RJ-45
<b>Audio</b>	Codec	Realtek® ALC887-VD2 8-Channel High Definition Audio
	Connector	Line-Out, Mic-in
<b>Storage</b>	SATA port	1 x SATA Gen 3.0, up to 6Gb/s
<b>Rear I/O</b>	HDMI	1
	Display Port	1
	USB3.1 Gen1	4
	Ethernet	2
<b>Internal Connector</b>	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 <sup>2</sup> C Header	1
	GPIO Header	1 (8-bit)
	Power Connector	1 x 4-pin ATX Power Connector

# Specifications

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

# Block Diagram



## Order Information

Model name	Part number	Description
E394S-IM-AA	90ME01C0*	x5-E3940,MINI PCIE,DUAL LAN,MB
E394S-IM-AA	90ME01C2*	x5-E3940,WITH HEAT SPREADER,MB
E394S-IM-AA	90ME01C3*	x5-E3940,WITH HEAT SINK_15W,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.

## Optional Accessories

Part number	Description	Quantity
13071*	HEAT SPREADER, WITH SPRING SCREW PACK (5pcs)	1
13ME*	HEAT SINK_15W, WITH SPRING SCREW PACK (5pcs), SIDE SCREW PACK (12pcs)	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.