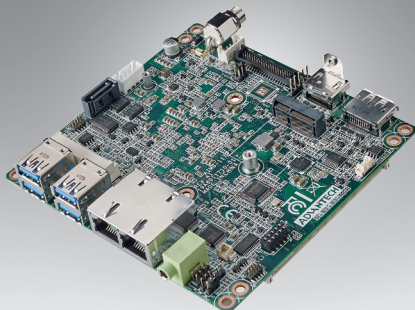


# AIMB-U117

## Intel® Atom™ E3950/E3930 DC 1.6/1.3 GHz UTX Industrial Motherboard with HDMI/eDP (LVDS)/DP++, 2 COMs and Dual LAN

**NEW**



Windows 10

RoHS COMPLIANT PRODUCT CE FCC

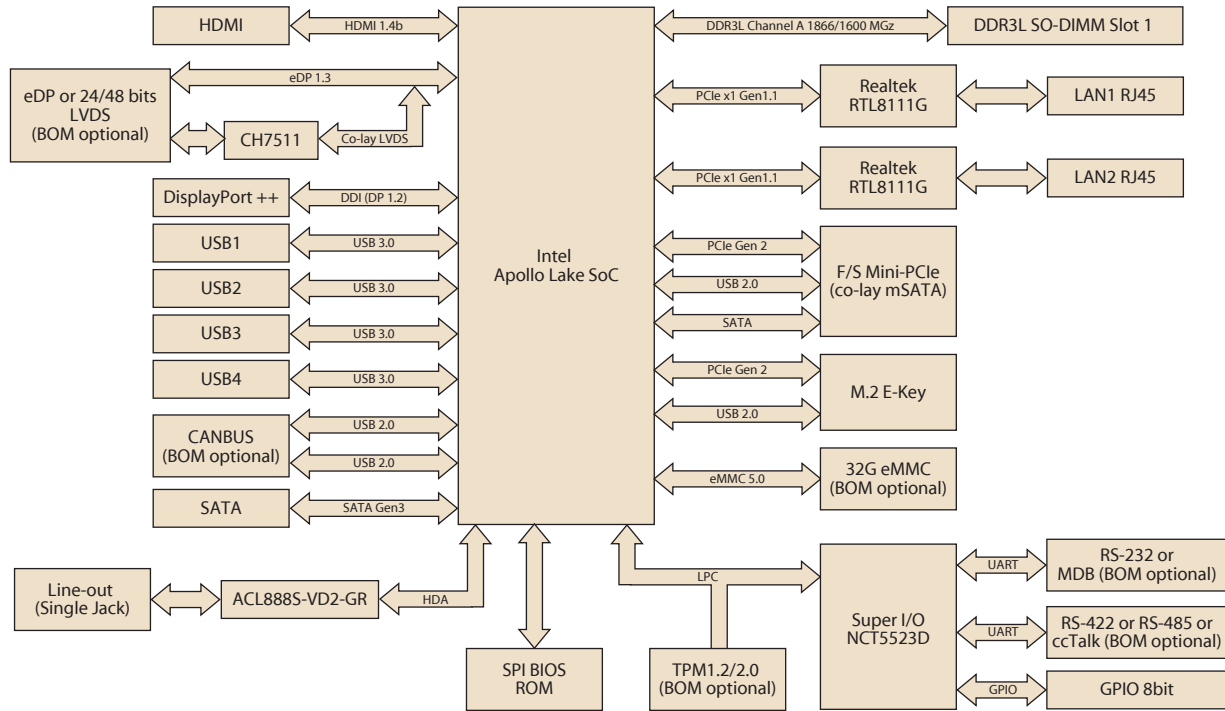
### Features

- Supports Intel® Atom™ Quad/ Dual core E3950/E3930 1.6/ 1.3 GHz processor
- Single 204-pin SO-DIMM up to 8 GB DDR3L 1866 MHz SDRAM
- Supports HDMI/DP++, eDP (co-lay dual-channel 48-bit LVDS)
- Supports 1 Mini-PCIe expansion slot, M.2 E-Key slot, 2 COMs (RS-232, RS-422/485), 4 USB 3.0, and dual LAN
- Supports eMMC 32GB on board
- Supports wide DC in 12V to 24V
- Supports wide temperature with cooler/fanless solution

### Specifications

Processor System	CPU (14nm)	Intel Atom E3950/ E3930
	Max. Speed	1.6 GHz (Quad Core)/ 1.3 GHz (Dual Core)
	L2 Cache	2 MB
	BIOS	AMI 16 Mbit SPI
Expansion Slot	Mini-PCIe	F/S co-lay mSATA
	M.2	E-Key
Memory	Technology	Singl channel DDR3L 1866MHz SDRAM
	Max. Capacity	8GB
	Socket	1 x 204-pin SO-DIMM (Non-ECC)
Graphics	Controller	Intel Gen 9 Graphics Engines and media encode/decode engine; Graphics Base Frequency: 500 MHz
	HDMI	1, Supports HDMI1.4b up to 3840 x 2160 @ 30Hz
	eDP	1, Supports eDP1.3, max resolution up to 3840 x 2160@60 Hz, Co-lay with LVDS
	LVDS	1, Supports 24-bit dual channel and up to 1920 x 1200, Co-lay with eDP (BOM Optional)
	Displayport	1, Supports DP++ 1.2, max resolution up to 4096 x 2160 @ 60Hz
Ethernet	Interface	10/100/1000 Mbps
	Controller	LAN1: Realtek 8111G; LAN2: Realtek 8111G
	Connector	RJ-45 x 2
SATA	Max Data Transfer Rate	600 MB/s (SATA 3.0)
	Channel	1
Rear I/O	HDMI	1
	Displayport	1
	Ethernet	2
	USB	4 x USB3.0
	Audio	1 (Line-out, convert to Mic-in or Line-in)
	DC jack	1 (2.5mm)
Internal Connector	LVDS & Inverter	1/1
	Serial	1, RS-232 or MDB (BOM optional) 1, RS-422 or RS-485 or ccTalk (BOM optional)
	SATA	1, (SATA 3.0) SATA PWR connector
Watchdog Timer	Output	System reset
	Interval	Programmable 1 ~ 255 sec/min
Power	Single voltage 1	12V ~ 24V DC input; 1 x External DC jack
	Typical Power Consumption	12V, Windows Idle mode: 3.554W (Intel E3950 1.6GHz/ DDR3L 1866MHz 8GB) 24V, Windows Idle mode: 7.296W (Intel E3950 1.6GHz/ DDR3L 1866MHz 8GB)
Environment	Z/ I SKU	Operating Temperature: 0 ~ 60 °C (32 ~ 140 °F) with air flow 0.7m/s Non-Operating Temperature: -40 ~ 85 °C (-40 ~ 185 °F)
	I SKU <b>Coming Soon</b>	Operating Temperature: -20 ~ 70 °C (-4 ~ 158 °F) with air flow 0.7m/s Non-Operating Temperature: -40 ~ 85 °C (-40 ~ 185 °F)
Physical Characteristics	Dimensions	112 x 117 mm (4.4" x 4.6")

## Block Diagram



## Ordering Information

P/N	CPU	Memory Slot	HDMI	eDP/ LVDS	DP++	GbE LAN	SATAIII	32G eMMC	USB 3.0	MiniPCle	M.2	RS232/ MDB	RS422/485/ ccTalk	TPM	CANBus	Audio	Operating Temp.	Thermal Solution
AIMB-U117Z-S6A1E	E3950	1	1	1/(1)	1	2	1	[1]	4	1 (F/S)	1	1/ (1)	1/ (1)/ or (1)	[1]	[1]	1	0 ~ 60° C	CPU Cooler
AIMB-U117I-S6A1E	E3930	1	1	1/(1)	1	2	1	[1]	4	1 (F/S)	1	1/ (1)	1/ (1)/ or (1)	[1]	[1]	1	0 ~ 60° C	CPU Heatsink

## Packing List

Part Number	Description	Quantity
1700008941	SATA HDD cable	1
1700018785	SATA power cable	1
1700022363-01	Serial port cable	2
2006U11700	Startup manual	1
1930001071	MiniPCle screw	1
1930006770-01	M.2 screw	1
1960088371T001	CPU Cooler for Z SKU (E3950)	1
1960088372T001	CPU Cooler for I SKU (E3930)	1

## Optional Accessories

Part Number	Description
1700029091-01	CANBus cable
	Heatspreader
	Semi-Heatsink
	Heatsink

**Coming Soon**

## I/O View

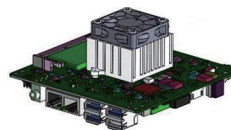


## Embedded OS/API

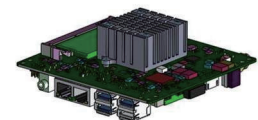
OS/API	Part No.	Description
Win 10	TBD	

## Thermal Solution

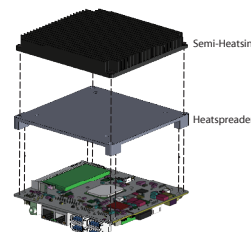
### CPU Cooler



### CPU Heatsink (I SKU only)



### Heatspreader + Semi-Heatsink



### Heatsink

