
Datasheet

ADVANTECH

AIMB-U117

Industrial UTX Motherboard with Intel® Atom™ E3950/E3930 and HDMI/eDP (LVDS)/DP++, 2 COMs and

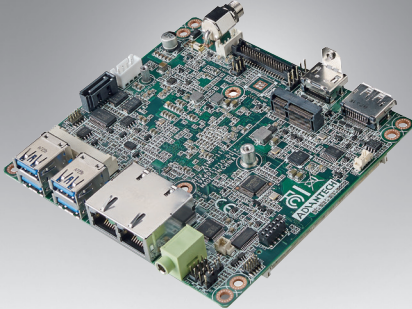
Dual LAN

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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

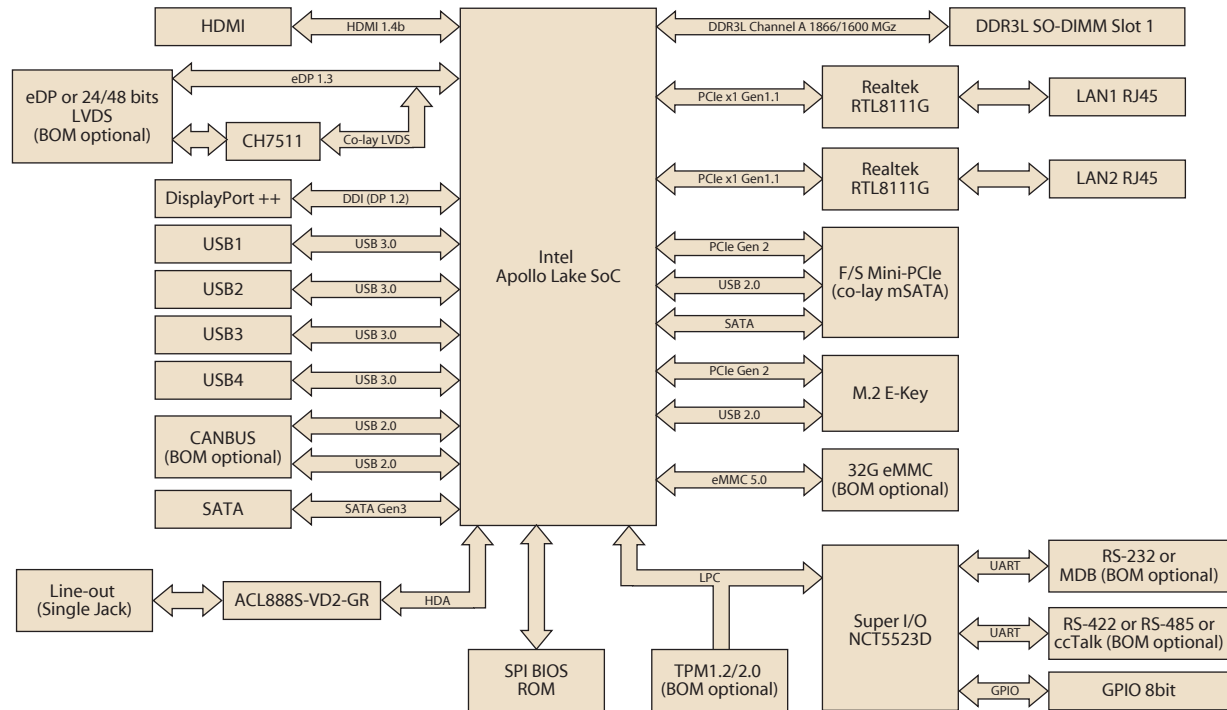
Features

- Supports Intel® Atom™ Qual/ 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 and cooler/fanless solution

Specifications

Processor System	CPU (14nm)	Intel Atom E3950/ E3930	
	Max. Speed	1.6 GHz (Qual 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	TBC	
Environment	SKU	Operating	Non-Operating
	E3950	0 ~ 60 °C (32 ~ 140 °F) with 0.7m/s air flow	-40 ~ 85 °C (-40 ~ 185 °F)
	E3930	-20 ~ 70 °C (-4 ~ 158 °F) with 0.7m/s air flow	-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	-20 - 70° C	CPU Heatsink

Packing List

Description	Quantity
SATA HDD cable	1
SATA power cable	1
Serial port cable	2
Startup manual	1
CPU Cooler	1

Optional Accessories

Description	Quantity
Heatspreader	1
Semi-Heatsink	1
Heatsink	1

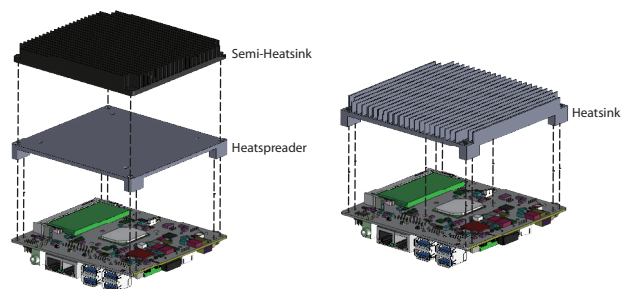
I/O View



Embedded OS/API

OS/API	Part No.	Description
Win 10	TBD	

Thermal Solution



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