

# AIMB-231

## Intel® Core™ i5-5350U/i3-5010U Mini-ITX with LVDS(eDP)/DP(HDMI)/ DP++, 2 COM, and Dual LAN

NEW



### Features

- Intel® Core™ i5-5350U/i3-5010U processor (Dual core), 15W TDP, BGA 1168 (MCP) 14nm Processor
- Two 204-pin SO-DIMM up to 16 GB DDR3L 1600 MHz SDRAM
- Multiple display I/O supports versatile Tri display functions for eDP/LVDS, DP/HDMI, and DP++
- Realtek ALC892 supports 7.1 + 2 channel HD audio
- Dual Intel i218/i210 Gigabit LAN
- 1 Full-sized Mini-PCIe, 1 Half-sized Mini-PCIe, 1 SIM Card Holder
- 2 COM, 3 SATA III, 1 mSATA
- 4 USB 3.0, 2 USB 2.0

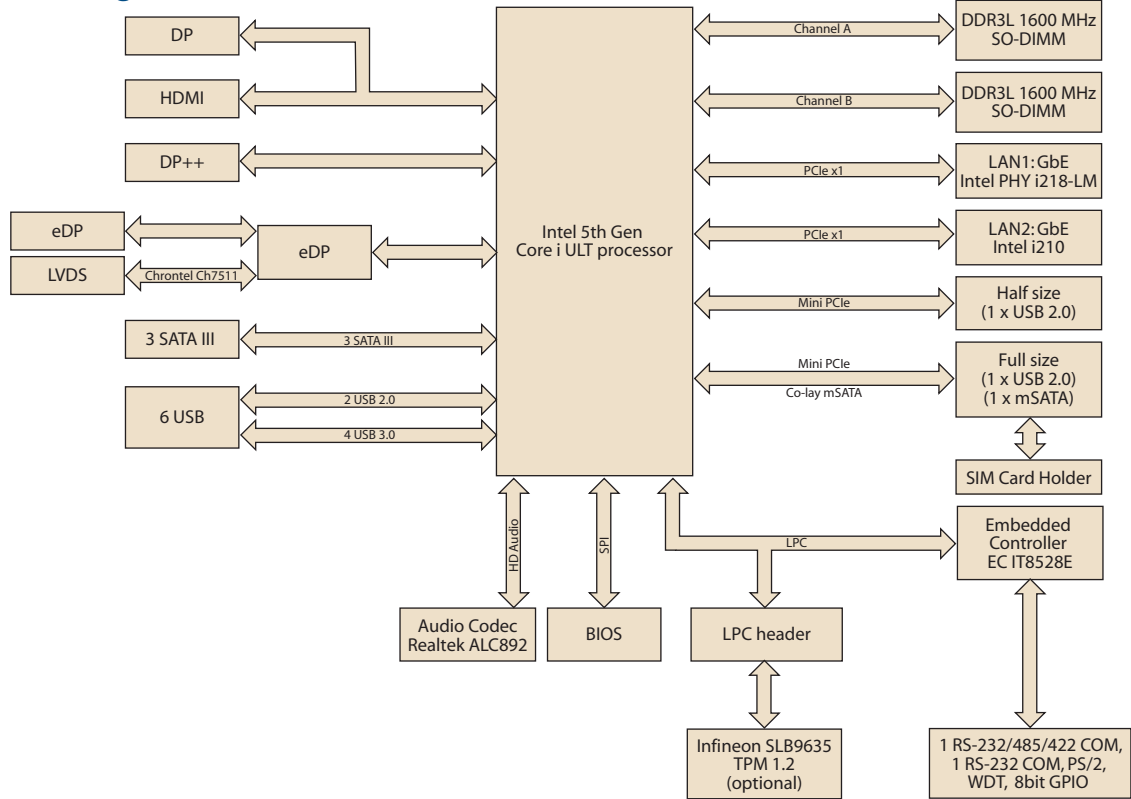
Software APIs:

Utilities:

### Specifications

		Intel Core i5-5350U	Intel Core i3-5010U
Processor System	CPU	Intel Core i5-5350U	Intel Core i3-5010U
	Max. Speed	1.8 GHz	2.1GHz
	L3 Cache	3M	
	Chipset	5 <sup>th</sup> Generation Intel® Core™ ULT + Wildcat Point LP	
Expansion Slot	BIOS	AMI EFI 128 Mbit, SPI	
	Full-size Mini-PCIe	1, Supports 1 x USB 2.0 and co-lay 1 x mSATA with SIM card holder	
Memory	Half-size Mini-PCIe	1, Supports 1 x USB 2.0	
	Technology	Dual Channel DDR3L 1600 MHz	
	Max. Capacity	16 GB/8 GB per SO-DIMM	
Graphics	Socket	2 x 204-pin SO-DIMM (Non-ECC)	
	Controller	Intel® HD Graphics 6000	Intel® HD Graphics 5500
	LVDS+Inverter / eDP	Supports DirectX 11.1, OpenGL 4.2, OpenCL 1.3, Full AVC, VC1, MPEG2 H/W encoder	
	DP/HDMI	Supports dual channel 48-bit up to 1920 x 1200, co-lay eDP	
	DP++	1, Supports HDMI 1.4 for HD Video playback	
	Dual Display	Max resolution up to 3840 x 2160 at 60 Hz on DisplayPort, 4096 x 2304 at 24 Hz on HDMI (default HDMI)	
	Tri Display	1, DP++ connector, available with DP-to-DVI (HDMI) cable (no transmitter) to connector to normal LCD monitor	
Ethernet	Dual Display Mode	LVDS(or eDP)+DP, LVDS(or eDP)+HDMI, LVDS(or eDP)+DP++, DP +DP++, HDMI+ DP++	
	Interface	DP++ + HDMI +LVDS(or eDP), DP++ + DP +LVDS(or eDP)	
	Controller	Extended Mode, Clone Mode	
SATA	Connector	10/100/1000 Mbps	
	Max Data Transfer Rate	LAN1: Intel PHY i218-LM (support AMT 10.0) LAN2: Intel i210	
Rear I/O	Channel	RJ-45 x 2	
	DP/HDMI	600 MB/s (SATA 3.0)/ mSATA	
	DP++	3 / 1	
Internal Connector	Ethernet	0, 1, 5	
	USB	1 / 1	
	Audio	2	
	DC Jack	4 x USB 3.0	
	LVDS & Inverter	2 single audio jack for Line-Out (Green), Mic-In (Red)	
	eDP	DC 12V Jack, single power	
	LVDS Inverter	1	
	LVDS Connector	1, by BOM optional	
	USB	1 (5 pin support 5V and 12V)	
	Serial	1 (3.3V / 5V / 12V) by jumper selected	
	SATA	2 ports USB 2.0 with 2.0mm pin-header	
	SATA Power	COM 1: RS-232/422/485 supports +5V, +12V(without H/W auto flow control) COM 2: RS-232	
	PS/2 K/B & M/S	4 (3 x SATA 3.0, 1 x mSATA)	
CPU/System/Chassis Fan Connector	3		
Power Connector	Supports PS/2 K/S/M/S with 5-pin wafer		
GPIO	1 CPU fan with 4-pin wafer 1 System fan with 4-pin wafer		
Watchdog Timer	Output	4-pin ATX, DC12V	
	Interval	8-bit (4-bit DI and 4-bit DO)	
Power Requirement	System reset	System reset	
	Power Type	Programmable 1 ~ 255 sec/min	
	Power Consumption (Max, test in HCT)	Single voltage 12 V DC input; 1 x External DC jack; 1 x Internal 4-pin (2 x 2) power connector, Supports AT/ATX mode	
Environment	Operating	i5-5350U, 3.5" SATA HDD x1+ 8G RAM x 2	i3-5010U, 3.5" SATA HDD x1+ 8G RAM x 2
	Non-Operating	12V	12V
Physical Characteristics	Temperature	5.57(A)	3.05(A)
	Dimensions	Operating 0 ~ 60° C (32 ~ 140° F), depends on CPU speed and cooler solution Non-Operating -20 ~ 70° C (-4 ~ 158° F)	
		170 x 170 mm (6.69" x 6.69")	

**Block Diagram**



**Ordering Information**

Order Number	CPU	Display	GbE	TPM	Storage	USB	PCIe / PCI	AMP
AIMB-231G2-U5A1E	i5-5350U	DP/HDMI, DP++,	2	(1)	3 x SATA III	4 x USB 3.0	1 x Full-size Mini-PCIe	(1)
AIMB-231G2-U3A1E	i3-5010U	LVDS/eDP			1 x mSATA	2 x USB 2.0	1 x Half-size Mini-PCIe	

\*( ) BOM options available on MP version.

Order Number	CPU	Display	GbE	COM	USB	Audio	Remark
AIMB-T12315-00Y1E	i5-5350U	DP/HDMI, DP++	2	2	4 x USB 3.0	Line Out	Barebone, with thermal module
AIMB-T12313-00Y1E	i3-5010U				2 x USB 2.0	Mic-In	

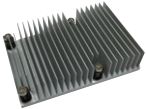
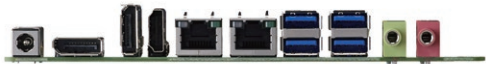
**Packing List**

Part Number	Description	Quantity
1700003194	SATA HDD cable	2
1700018785	SATA Power cable	2
2006A23110	Startup manual	1
1960062823N011	Fanless Heat Sink	1
19Z0000845T000	IO BRACKET FOR AIMB-231	1

**Optional Accessories**

Part Number	Description
1757003064	ADAPTER AC100-240V 84W +12V/7A (FSP)
1757003995	ADAPTER AC100-240V 60W +12V/5A (FSP)
1700001524	Power cable 3-pin 180 cm, USA type
170203183C	Power cable 3-pin 180 cm, Europe type
170203180A	Power cable 3-pin 180 cm, UK type
1700008921	Power cable 3-pin PSE Mark 183 cm
1960061914N021	Fan Cooler for 15W 60(W) x 60(L) x 26.5(H)mm

**I/O View**



Fanless Heat Sink



Fan Cooler