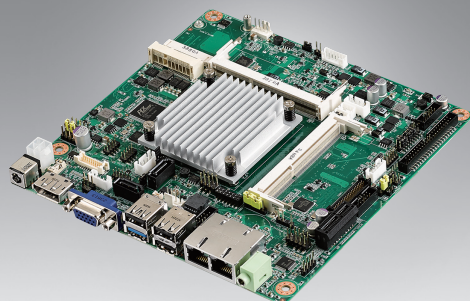


AIMB-215 B3

Mini-ITX Motherboard Intel Atom™ Processors, Celeron™ Processors, and Pentium™ Processors based on the Bay Trail platform



Features

- Supports Intel Celeron Quad Core J1900/N2930/N2807 processor
- Two 204-pin SO-DIMM up to 8 GB DDR3L 1333 MT/s SDRAM
- Supports VGA/DP1.2 /24-bit dual channel LVDS
- Supports 1 PCIe x1, 6 COM, 7 USB 2.0, and 1 USB 3.0
- Lower total cost of ownership with DC12V support and onboard TPM1.2(option)
- Supports WISE-DeviceOn and Embedded Software APIs

Software APIs:



Utilities:

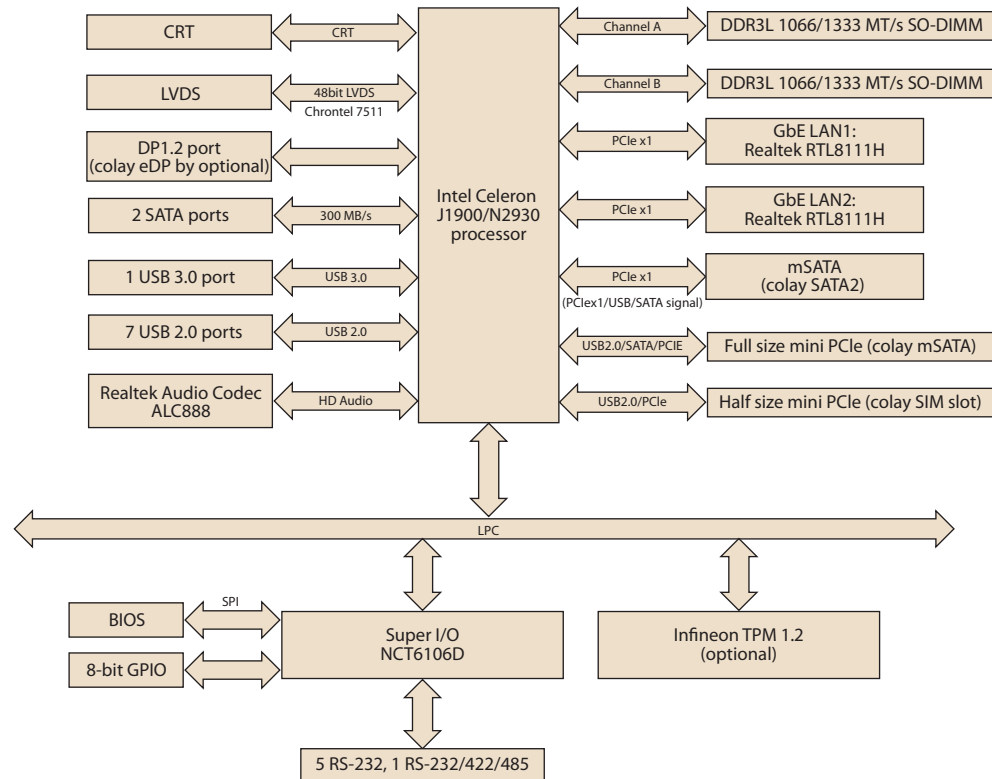


WISE-DeviceOn CE FCC RoHS

Specifications

Processor System	CPU (22nm)	Intel J1900	Intel N2930	Intel N2807
	Max. Speed	2.0 GHz (Quad core)	1.83 GHz (Quad core)	1.58 GHz (Dual core)
	L2 Cache	2 MB	2 MB	1 MB
	BIOS	AMI 16 Mbit SPI	AMI 16 Mbit SPI	AMI 16 Mbit SPI
Expansion Slot	PCI	-		
	Mini-PCIe	1 x H/S mini-PCIe with SIM card holder (colay PCIe x1)		
	PCIe	1 x PCI Express x1 Gen2 (colay H/S MiniPCIe)		
Memory	Technology	Dual channel DDR3L 1066/1333 MT/s SDRAM		
	Max. Capacity	8 GB/4 GB per SO-DIMM		
	Socket	2 x 204-pin SO-DIMM (Non-ECC)		
Graphics	Controller	Intel Gen 7 Graphics Engines and media encode/decode engine; GPU Frequency: 688 MHz for J1900; 313 MHz for N2930		
	VRAM	Shared system memory up to 224 MB SDRAM		
	VGA	1 x VGA, up to 2560 x 1600		
	LVDS	Supports dual channel 48-bit up to 1920 x 1200		
	Display Port 1.2	1 x DP++, up to 2560 x 1600 colay eDP port (optional)		
	Dual Display	VGA+DP1.2, VGA+LVDS, LVDS+DP1.2, VGA+eDP (optional), LVDS+eDP (optional), Supports extended mode and clone mode		
Ethernet	Interface	10/100/1000 Mbps		
	Controller	GbE LAN1: Realtek RTL8111H GbE LAN2: Realtek RTL8111H		
	Connector	2 x RJ-45		
SATA	Max Data Transfer Rate	300 MB/s		
	Channel	2, SATA 2 colay mSATA (optional); SATA 1 support SATA-DOM device		
Rear I/O	CRT	1		
	DP1.2	1		
	Ethernet	2		
	USB	3 x USB 2.0 and 1 x USB 3.0		
	Audio	1 (Mic-in or Line out)		
	DC jack	1 (2.5 mm)		
Internal Connector	LVDS & Inverter	1/1		
	eDP	1 (option)		
	USB	4 x USB 2.0 compliant		
	Serial	6 (5 x RS-232, 1 x RS-232/422/485; COM 3 support RS-232/422/485 auto flow control; COM 6 support 5V/12V by jumper selection)		
	IDE	None		
	SATA	2		
	SATA PWR Connector	2		
	Parallel	None		
	GPIO	8-bit		
	PS/2 KB & MS	1		
Watchdog Timer	Output	System reset		
	Interval	Programmable 1 ~ 255 (second or minute)		
Power	Power Type	Single voltage 12V DC input; 1 x External DC jack; 1 x Internal 4-pin (2x2) power connector; Supports AT/ATX mode		
	Typical Power Consumption	Win Idle 10.17 W (Intel Celeron J1900 2.0 GHz / DDR3L 1600 MHz 4GB x 2)		
Environment		Operating		
	Temperature	0 ~ 60° C (32 ~ 140° F) with 0.7m/s air flow		
Physical Characteristics		Non-Operating		
	Dimensions	-40 ~ 85° C (-40 ~ 185° F)		
		170 mm x 170 mm (6.69" x 6.69")		

Block Diagram



Ordering Information

Part Number	CPU	Memory	DP++/eDP	CRT	LVDS	GbE LAN	COM	SATA II	USB3.0/2.0	MiniPCIe	TPM	AMP	PClex1	Thermal Solution	Operating Temp.
AIMB-215D-S6B3	J1900	2	1 / (1)	1	1	2	6	2	1/7	1 x H/S	(1)	(2 x 6W)	1	Passive	0 ~ 60° C
AIMB-215N-S6B3	N2930	2	1 / (1)	1	1	2	6	2	1/7	1 x H/S	(1)	(2 x 6W)	1	Passive	0 ~ 60° C
AIMB-215U-S6B3	N2807	1	1 / (1)	1	0	1	2	1	1/3	0	(1)	(2 x 6W)	1	Passive	0 ~ 60° C
AIMB-215L-S6B3	J1900	2	1 / (1)	1	0	1	2	1	1/3	0	(1)	(2 x 6W)	1	Passive	0 ~ 60° C
AIMB-215DZ-S6B3	J1900	2	1 / (1)	1	1	2	6	2	1/7	1 x H/S	(1)	(2 x 6W)	1	Passive	-20 ~ 70° C

Note: Passive = fanless

* () BOM options available on MP version

Packing List

Part Number	Description	Quantity
1700003194	SATA HDD cable	1
1700018785	SATA power cable	1
1700008876	1-to-4 serial ports cable kit, 35 cm	1
1700100250	1-to-1 serial port cable, 25 cm	2
19Z0000569T000	I/O port bracket	1
2006021531	Startup manual	1
1960064228N001	Fanless heatsink	1
1930001071	M.2 Screw (M2x3L)	2

Optional Chassis

Part Number	Description
AIMB-B2000-00YE	Mini-ITX chassis with optional DC Adaptor

I/O View



Optional Accessories

Part Number	Description
96PSA-A60W12V1-4	Adapter AC100-240V 60W +12V/5A
96PSA-A84W12V1-4	Adaptor AC100-240V 84W, 12V/7A
1703060191	KBMS cable 1*6P-2.5/DIN-6P(F)*2, 25 cm
1700023474-01	A Cable USB-A 4P(F)*2/2*5P-2.0 34.5CM F/10

Optional LVDS module

Part Number	Description
AIMB-LVDS2-00A1E	AIMB LVDS module to support 2nd LVDS for AIMB-215

Note: Requires customized BIOS and AIMB-215 BOM change to support

Embedded OS/API

OS/API	Part Number	Description
WES8	2070013818	img WES8 AIMB-215B1 x64 V6.5.2 10MUI
WES7	2070013815	img WES7E AIMB-215B1 x64 V5.6.8 En/Jp/TC/SC
Win10 IoT Ent	2070014093	img Win10 IoT Ent AIMB-215D x32 V10.0.0 10MUI
Win10 IoT Ent	2070014894	img W10 16EL AIMB-215D B1 64bit 1609 Eng