

# AIMB-216

## Intel Pentium & Celeron Quad Core N3710/N3160/N3010 Mini-ITX with DVI-D/DP/HDMI, 6 COM, and Dual LAN

**NEW**



### Features

- Supports Intel Pentium, Celeron Quad Core & Dual Core N3710/N3160 & N3010 processor
- Two 204-pin SO-DIMM up to 8 GB DDR3L 1600 MHz SDRAM
- Supports DVI-D/DP1.1a/HDMI 1.4b
- Supports 1 PCIe x1 and 1 M.2 (B key) + 1 MiniPCIe, 6 COMs, 2 USB 2.0, and 4 USB 3.0
- Lower total cost of ownership with DC12V support and onboard TPM1.2(optional)
- Supports SUSIAccess and Embedded Software APIs

#### Software APIs:



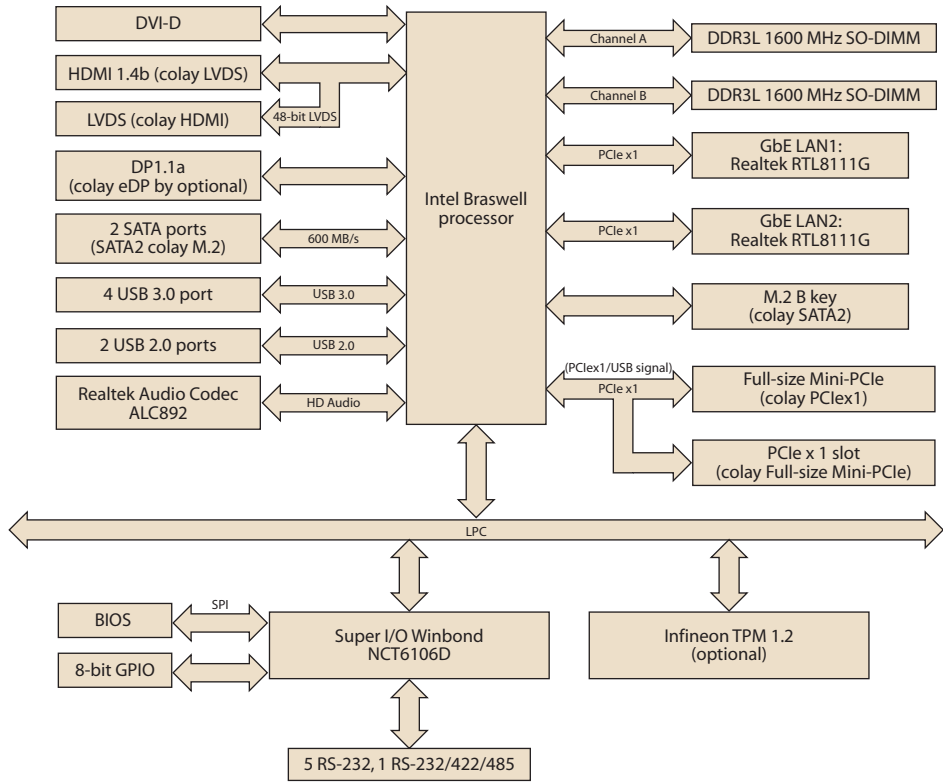
#### Utilities:



### Specifications

Processor System	CPU (14nm)	Intel N3710	Intel N3160	Intel N3010
	Max. Speed	1.6 GHz (Quad core)	1.6 GHz (Quad core)	1.04 GHz (Dual core)
	L2 Cache	2 MB	2 MB	2 MB
	BIOS	AMI 16 Mbit SPI		
Expansion Slot	M.2	B key for SSD and 3G supported		
	Mini-PCIe	1 (F/S)		
	PCIe	PCI Express x1 (Gen2), colay MiniPCIe		
Memory	Technology	Dual channel DDR3L 1600 MHz SDRAM		
	Max. Capacity	8 GB/4 GB per SO-DIMM		
	Socket	2 x 204-pin SO-DIMM (Non-ECC)		
Graphics	Controller	Intel Gen 8 Graphics Engines and media encode/decode engine; GPU Frequency: 400 MHz for N3710; 320 MHz for N3160 & N3010		
	VRAM	Shared system memory up to 224 MB SDRAM		
	DVI-D	Supports up to 3840 x 2160 @ 30Hz		
	HDMI/LVDS	HDMI co-lay with LVDS, HDMI supports up to 3840 x 2160 @ 30Hz; LVDS supports up to 1920 x 1200		
	DP1.1a	1, Supports up to 3840 x 2160 @ 30Hz, colay eDP.		
Ethernet	Triple display	DVI-D+DP+LVDS, DVI-D+DP+HDMI, DVI-D+EDP+LVDS, DVI-D+EDP+HDMI		
	Interface	10/100/1000 Mbps		
	Controller	GbE LAN1: Realtek 8111G GbE LAN2: Realtek 8111G		
SATA	Connector	RJ-45 x 2		
	Max Data Transfer Rate	600 MB/s		
Rear I/O	Channel	2, SATA 2 colay M.2; SATA 1 support SATA-DOM device		
	DVI-D	1		
	DP 1.1a	1		
	HDMI 1.4b	1		
	Ethernet	2		
	USB	4 (USB 3.0)		
	Audio	1 (supports Line out, converts to Mic in or Line in)		
Internal Connector	DC jack	1 (2.5 mm)		
	LVDS & Inverter	1/1		
	eDP	1 (optional)		
	USB	2 (USB 2.0)		
	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		
	Mini-PCIe	1 (F/S)		
	M.2	1 (B Key for SSD and 3G supported)		
Watchdog Timer	GPIO	8-bit		
	PS/2 KB & MS	1		
Power	Output	System reset		
	Interval	Programmable 1 ~ 255 sec/min		
Environment	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	TBD		
Physical Characteristics	Operating	Operating		Non-Operating
	Temperature	0 ~ 60° C (32 ~ 140° F) with 0.7m/s air flow		-40 ~ 85° C (-40 ~ 185° F)
	Dimensions	170 x 170 mm (6.69" x 6.69")		

### Block Diagram



### Ordering Information

Part Number	CPU	Memory	DP/eDP	DVI-D	HDMI/LVDS	GbE LAN	COM	SATA III	USB3.0/2.0	MiniPCIe	M.2	TPM	AMP	PCIEx1	Thermal Solution	Operating Temp.
AIMB-216D-S6A1E	N3710	2	1 / (1)	1	1	2	6	2	4/2	1 (F/S)	1	(1)	(2 x 6W)	1	Passive	0 ~ 60° C
AIMB-216N-S6A1E	N3160	2	1 / (1)	1	1	2	6	2	4/2	1 (F/S)	1	(1)	(2 x 6W)	1	Passive	0 ~ 60° C
AIMB-216U-S6A1E	N3010	2	1 / (1)	1	1	2	6	2	4/2	1 (F/S)	1	(1)	(2 x 6W)	1	Passive	0 ~ 60° C
AIMB-216L-S6A1E	N3160	2	0	1	LVDS only	1	2	1 (SATA1)	4/0 (USB1-4)	1 (F/S)	0	(1)	(2 x 6W)	1	Passive	0 ~ 60° 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
TBD	I/O port bracket	1
TBD	Startup manual	1
TBD	Fanless heatsink	1

### Optional Accessories

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

### Optional Chassis

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

### Embedded OS/API

OS/API	Part No.	Description
WES8	TBD	Windows Embedded 8
WES7	TBD	Windows Embedded 7