

AIMB-216

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

NEW



WISE-PaaS/RMM

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 TPM1.2/2.0 (optional)
- Supports WISE-PaaS/RMM and Embedded Software APIs

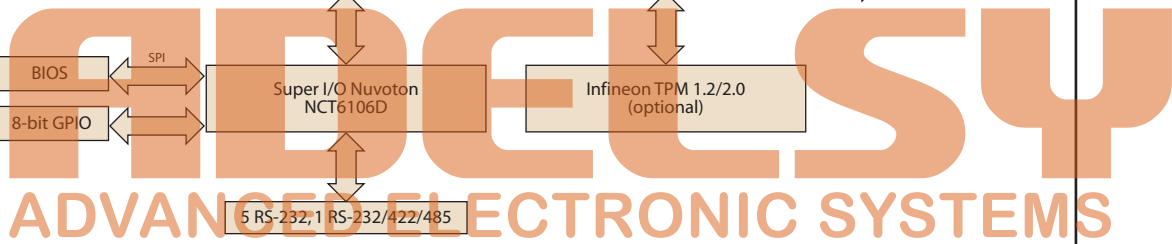
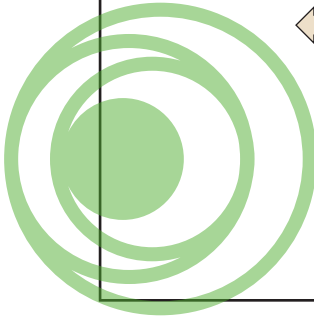
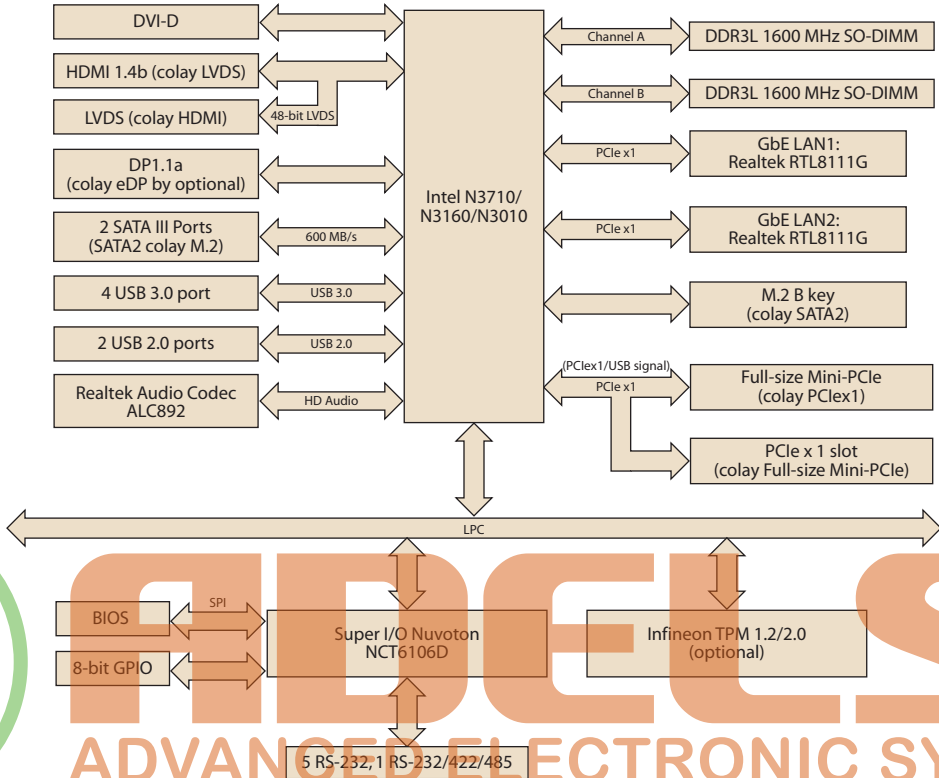
Software APIs:
H/W Monitor Brightness Watchdog GPIO

Utilities:
BIOS flash Monitoring

Specifications

		Intel N3710	Intel N3160	Intel N3010
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
Expansion Slot	BIOS	AMI 64 Mbit SPI		
	M.2	B key for SSD and 3G supported (Type: 2242, 2280)		
	Mini-PCIe PCIe	1 (F/S) PCI Express x1 (Gen2), colay MiniPCIe		
Memory	Technology	Dual channel DDR3L 1600 MHz SDRAM		
	Max. Capacity	8 GB/8 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		
	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 supports up to 2560 x 1440 @ 60Hz		
	Triple display	DVI-D+DP+LVDS, DVI-D+DP+HDMI, DVI-D+EDP+LVDS, DVI-D+EDP+HDMI		
Ethernet	Interface	10/100/1000 Mbps		
	Controller	GbE LAN1: Realtek 8111G GbE LAN2: Realtek 8111G		
	Connector	RJ-45 x 2		
SATA	Max Data Transfer Rate	600 MB/s (SATA 3.0)		
	Channel	2, SATA 2 colay M.2; SATA 1 support SATA-DOM device		
Rear I/O	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)		
	DC jack	1 (2.5 mm)		
Internal Connector	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)		
	GPIO	8-bit		
PS/2 KB & MS	1			
Watchdog Timer	Output	System reset		
	Interval	Programmable 1 ~ 255 sec/min		
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	Windows Idle mode: 12.6W (Intel N3710 1.6GHz processor/DDR3L 1600MHz 4GB x 2pcs)		
Environment	Operating	Operating		Non-Operating
	Temperature	0 ~ 60° C (32 ~ 140° F) with 0.7m/s air flow		-40 ~ 85° C (-40 ~ 185° F)
Physical Characteristics	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	MiniPCle	M.2	TPM	AMP	PCle x1	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
19Z0001230T000	I/O port bracket	1
2007021610	Startup manual	1
1960073060T001	Fanless heatsink for AIMB-216D/N/L	1
1960064228N001	Fanless heatsink for AIMB-216U	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
1700023474-01	A Cable USB-A 4P(F)*2/2*5P-2.0 34.5CM F/10

Optional Chassis

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

Embedded OS/API

OS/API	Part No.	Description
Windows 10	TBD	Win10 IoT Enterprise x64 multi-language
WE8.1	2070014774	img WE8.1 IDTP AIMB-216 x64 1609 10MUI
WE7	2070014888	img WE7E AIMB-216 32bit 1609 4MUI