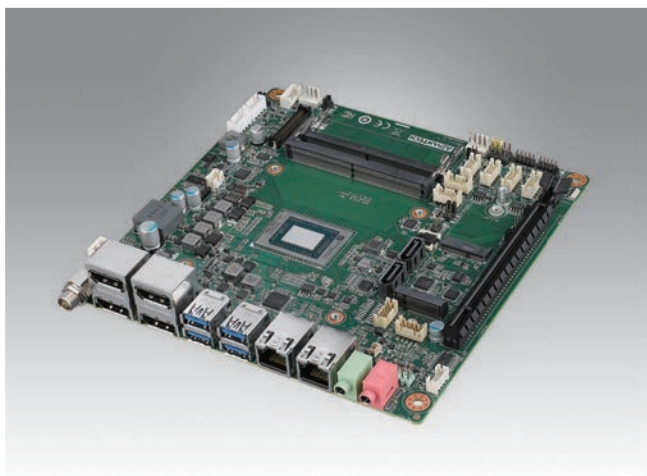


AIMB-2210

Mini-ITX Motherboard AMD Ryzen™ Embedded 8000 Series Processor



Features

- AMD Ryzen™ Embedded 8000 Series Processor
- Up to 96GB DDR5 5600MT/s with two SO-DIMM
- Four independent display with 4 DP or 3 DP + 1 LVDS(or eDP)
- 3 x M.2 expansion slots, 6 x COM, 4 x USB 3.2 Gen2x1, 4 x USB 2.0 and 1 x PCIe x8 Gen4
- Supports 12-24V wide voltage DC-In
- Windows 11 LTSC & Ubuntu 24.04 LTS; SUSI API and WISE-DeviceOn

Software APIs:



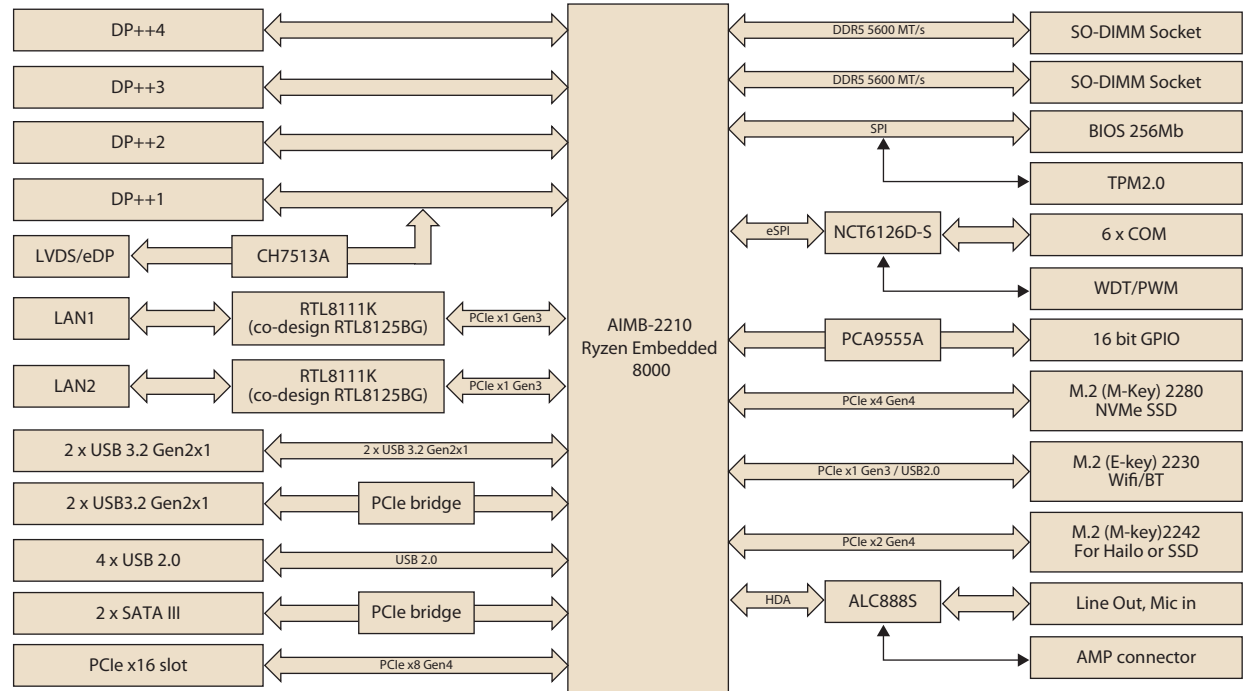
Utilities:



Specifications

	SoC	Ryzen 7 Pro 8845HS	Ryzen 7 Pro 8840U	Ryzen 5 Pro 8645HS	Ryzen 5 Pro 8640U		
Processor System	Cores	8	8	6	6		
	Base freq. (GHz)	3.8	3.3	4.3	3.5		
	L2 Cache (MB)	8	8	6	6		
	TDP	45W	28W	45W	28W		
	NPU	Yes					
	BIOS	AMI EFI 256Mb SPI					
Expansion Slot	M.2	2 x M-key for SSD or Hailo, 1 x E-key for wireless module (WiFi/BT)					
	PCIe	1 x PCIe x16 slot (real bandwidth PCIe x8 Gen4)					
Memory	Technology	Single channel DDR5 5600 MT/s (support ECC)					
	Max. Capacity	96 GB					
	Socket	2 x 262pin SO-DIMM					
Graphics	Controller	AMD RDNA 3 Radeon Graphics					
	DP	4 x DP++, up to 4096 x 2160 @ 60Hz, DP1 colay with eDP/LVDS					
	LVDS	1 (default, up to 1920x1080@60Hz, colay with DP1)					
	eDP	1 (option, up to 4096x2304 @ 60Hz)					
	Multi Displays	4 independent display. DP1/DP2/DP3/DP4 LVDS or eDP + DP2/DP3/DP4					
Network	Ethernet	10/100/1000/2500 Mbps					
	Controller	RTL8111K (1GbE) default, RTL8125BG (2.5GbE) by option					
	Connector	2 x RJ45					
Audio	Codec	Realtek ALC888S, High Definition Audio (HD), Line out, Mic-in					
	Amplifier	Yes, 4 ohm 8W*2; 8 ohm 6W*2					
SATA	Max data transfer rate	6.0 Gb/s					
	Channel	2 x SATAIII					
Rear I/O	DP	4					
	Ethernet	2					
	USB	4 x USB 3.2 Gen2x1					
	Audio	1 (Line-Out, Mic-In)					
	USB	4 x USB 2.0					
Internal Connector	LVDS/eDP	1 (eDP colay with LVDS)					
	Serial	6, COM1: Support RS-232 (RI Power 5V/12V) COM2 and 5: Support RS-232/422/485, by BOM option COM3: Support RS-232 (CCTalk by BOM option) COM4: Support RS-232 (TTL, RI Power 5V/12V by BOM option) COM6: Support RS-232					
		SATA	2 x SATAIII 6.0 Gb/s				
		M.2	2 x M-key (dimension: 2242/2280) 1 x E-key (dimension: 2230)				
		GPIO	16-bit				
		Watchdog Timer	Output	System reset			
			Interval	Programmable 1 ~ 255 (second or minute)			
Power Requirements	Input voltage	12-24V DC-in					
	Connector	DC Jack, Internal 4-pin ATX					
	Power consumption	Configuration	AMD Ryzen™ 7 Pro 8845HS, 2pcs 48 GB DDR5 5600 MT/s				
		Max.	86.9W				
Typical	73.9W						
Environment	Temperature	Operating: 0 ~ 60 °C (32 ~ 140 °F)					
	Storage	Non-Operating: -40 ~ 85 °C (-40 ~ 185 °F)					
Physical Characteristics	Dimensions	170 mm x 170 mm (6.69" x 6.69")					

Block Diagram



Ordering Information

P/N	CPU	TDP	LVDS/eDP	DP	DDR5	GbE	COM	SATAIII	USB3.2	USB2.0	M.2 E key	M.2 M key	PClex16	TPM	AMP
-----	-----	-----	----------	----	------	-----	-----	---------	--------	--------	-----------	-----------	---------	-----	-----

*() Supports by BOM options

Packing List

Part Number	Description	Quantity
AIMB-2210 Board	AIMB-2210 motherboard	1
1700003194-21	SATA HDD cable	1
1700034404-01	1-to-1 serial port cable, 50cm	1
TBD	I/O port bracket	1
2046221000	Startup manual for AIMB-2210	1
19350304A0	M.2 Screw, M3x4L R/S D=5.3 H=2 (2+)	3
1700018785-01	SATA power cable	1

Optional Chassis

Part Number	Description
-------------	-------------

Optional Accessories

Part Number	Description
1700034405-01	1-to-1 USB cable, 50cm

I/O View



Embedded OS/API

OS	Part No.	Description
----	----------	-------------