

AIMB-2710

Mini-ITX Motherboard Intel® Core™ Ultra Processor



Features

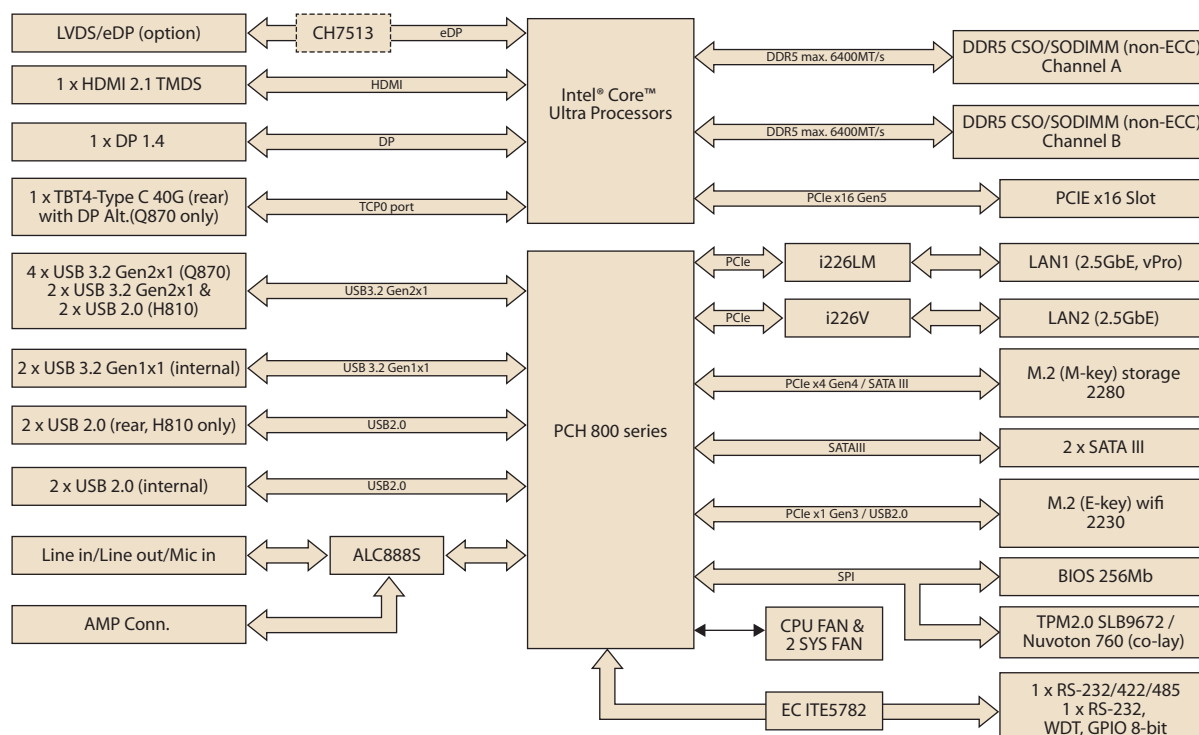
- Intel® Core™ Ultra Processors, max. 24Core, support Q870/H810 chipset
- Up to 96GB DDR5 6400 MT/s with two SODIMM
- PCIe x16 Gen5 (16GT/s)
- Four independent displays with 2 DP, 1 HDMI, 1 LVDS (or eDP)
- Rich expansion: 1 M.2 M key & 1 M.2 E key, 6 USB 3.2 & 2 USB 2.0, 2 and 1 USB4/Thunderbolt™4
- 12~24V Power via Phoenix or ATX 8pin (Option) connector & 5VSB 3pin header
- WISE-DeviceOn and Embedded Software APIs



Specifications

15th Generation Processors	CPU	Ultra 9 285	Ultra 9 285T	Ultra 7 265	Ultra 7 265T	Ultra 5 245	Ultra 5 245T	Ultra 5 225	Ultra 5 225T
	Core Number	24	24	20	20	14	14	10	10
	Base frequency (GHz)	2.5/1.9	1.4/1.2	2.4/1.8	1.5/1.2	3.5/3.0	2.2/1.7	3.3/2.7	2.5/1.9
	Max Speed (GHz)	5.6/4.6	5.6/4.6	5.3/4.6	5.3/4.6	5.1/4.5	5.1/4.5	4.9/4.4	4.9/4.4
	Smart cache (MB)	36	36	30	30	24	24	20	20
	TDP (W)	65	35	65	35	65	35	65	35
	Processor System	Chipset	Q870 / H810						
BIOS		AMI EFI 256 Mbit SPI							
Expansion Slot	M.2	1 x M-Key (2280, for SSD) 1 x E-Key (2230, for Wireless connection)							
	PCIe	1 x PCIe x16 Gen5 (16GT/s) for discrete GPU card and storage devices							
Memory	Technology	Dual Channel DDR5, up to 6400 MT/s (non-ECC)							
	Max. Capacity	96GB (up to 48GB per SODIMM)							
	Socket	2 x 262pin SODIMM							
Graphics	Controller	Enhanced Intel® Xe LPG architecture							
	HDMI	1 x HDMI 2.1 TMDS, up to 4096 x 2160 @ 60Hz							
	DP	1 x DP 1.4, up to 4096 x 2160 @120Hz							
	eDP	1, by BOM option, up to 4096 x 2160 @ 60Hz							
	LVDS	1, default, up to 1920x1200 @ 60Hz							
	Multi Displays	Quadruple independent display. (Q870) HDMI + DP + TBT4-Type C + LVDS (or eDP)							
		Triple independent display. (H810E) HDMI + DP + LVDS (or eDP)							
Network	ETHERNET	10/100/1000/2500 Mbps							
	Controller	LAN1: 2.5 GbE Intel I226-LM LAN2: 2.5 GbE Intel I226-V							
	Connector	2 x RJ45							
Audio	Codec	Realtek ALC888S, High Definition Audio (HD), Line-Out (default)							
	Amplifier	Yes, stereo (Max. 3W)							
SATA	Max data transfer rate	6.0 Gb/s							
	Channel	2 (SATA III)							
Rear I/O	DP	2 (1 from TBT4-Type C Alt. mode)							
	HDMI	1							
	Ethernet	2							
	USB	4 x USB 3.2 Gen2x1 and 1 x TBT4-Type C (By Q870) 2 x USB 3.2 Gen2x1 & 2 x USB2.0 (By H810)							
	Audio	1 (Line in/Line out/Mic in)							
	USB	2 x USB 3.2 Gen1x1 and 2 x USB 2.0							
Internal Connector	LVDS/eDP	1 (LVDS colay with eDP)							
	Serial	2 ports (COM1 RS232, COM2 RS232/422/485)							
	SATA	2							
	M.2	1 x M-Key (2280, for SSD) 1 x E-Key (2230, for Wireless connection)							
	GPIO	8-bit							
	Watchdog Timer	Output	System reset						
Interval		Programmable 1 ~ 255 (second or minute)							
Power Requirements	Input voltage	12-24V Phoenix and ATX support							
	Connector	4-pin Terminal block							
	Power consumption	Configuration	Intel® Core™ Ultra 9 285, 2pcs 48 GB DDR5 5600 MT/s						
		Max.	218.96 W						
Environment		Typical 148.98 W							
	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

Part No.	Chipset	HDMI	DP	LVDS/eDP	TBT4-Type C	2.5GbE	COM	SATAIII	USB 3.2	USB2.0	M.2 E key	M.2 M key	PCIe	TPM	AMP	Power design
AIMB-2710QF-LDA1	Q870	1	1	1/(1)	1 (with DP alt.)	2	2	2	4 x USB3.2 Gen2 x1 2 x USB3.2 Gen1 x1	2 (Internal)	1	1	1	1	(1)	Phoenix conn.
AIMB-2710QF-LAA1	Q870	1	1	1/(1)	1 (with DP alt.)	2	2	2	4 x USB3.2 Gen2 x1 2 x USB3.2 Gen1 x1	2 (Internal)	1	1	1	1	(1)	ATX 8-pin
AIMB-2710HL-EDA1	H810	1	1	(1)/1	-	2	2	2	2 x USB3.2 Gen2 x1 2 x USB3.2 Gen1 x1	2 (Rear)	1	1	1	(1)	(1)	Phoenix conn.

*) Supports by BOM options

Packing List

Part No.	Description	Quantity
AIMB-2710 Board	AIMB-2710 motherboard	1
1700034404-02	1-to-1 serial port cable, 50cm	1
1700003194	SATA HDD cable	1
1700018785	SATA PWR cable	1
1960119138T001	I/O port bracket	1
19350304A0	M.2 screws (M3, L=4mm)	2
1700023082-11	ATX cable 3P-2.0 15cm	1

Optional Accessory

Part No.	Description
1970005672T001	ARL-S CPU Cooler (for CPU TDP <= 35W), H: 32mm
1970005349T001	ARL-S CPU Cooler (for CPU TDP <= 65W), H: 56.5mm
1700034405-01	1-to-2 USB cable, 50cm

Embedded OS / API

OS/API	Part No.	968 Part No.	Description
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Optional Chassis

Part No.	Description
EPC-B2000-A030	Mini-ITX Chassis with 350W ATX power supply only for AIMB-2710QF-LAA1

I/O View

