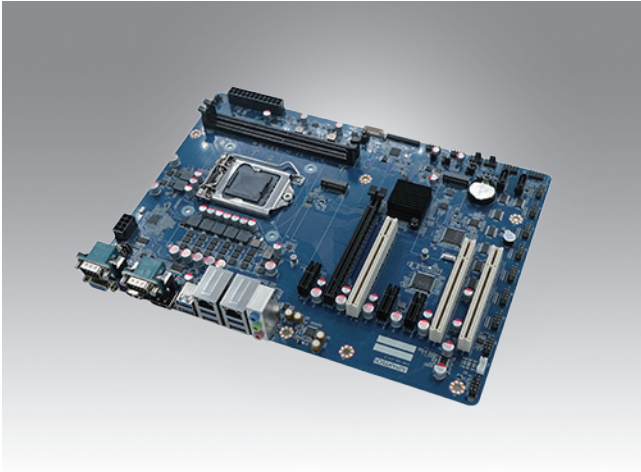


SIMB-986

LGA1200, 10th/11th Gen Intel® Core™ i9/i7/i5/i3 ATX Motherboard



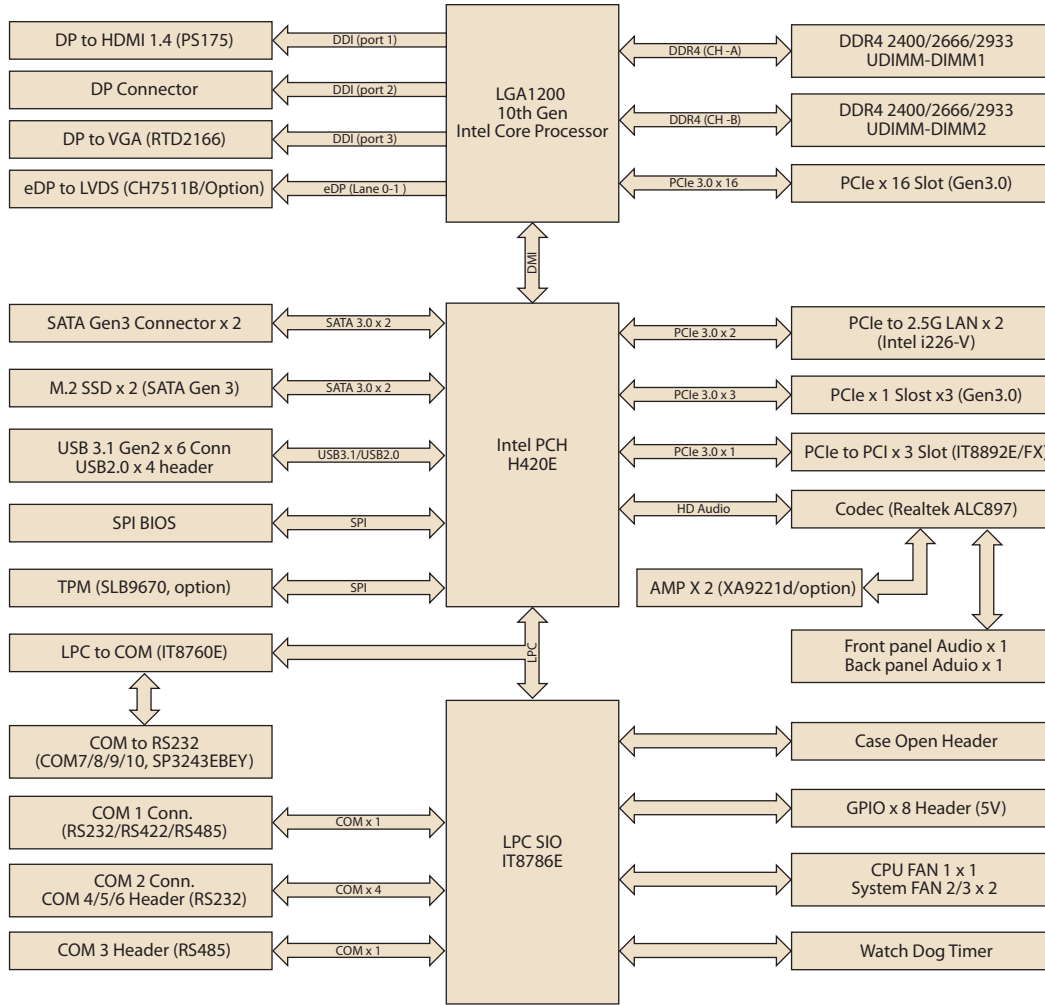
Features

- Intel® 10th/11th generation Core™ i9/i7/i5/i3 & Pentium®/Celeron® processor with H420E chipset
- Dual channel (Non-ECC) DDR4 2400/2666/2933 up to 64 GB
- Support VGA and HDMI, DP, LVDS display
- 2 M.2, 2 SATA 3.0, 6 USB 3.2, 4 USB 2.0, 2 2.5GbE LAN, 1 RS232/RS422/RS485 and 8 RS232, 1 RS485
- 1 PCIe x16 and 3 PCIe x1 and 3 PCI expansion slots
- Support TPM
- Supports Win10 / Win11

Specifications

Processor	CPU	Intel 10th/11th Core i9/i7/i5/i3&Pentium®/Celeron® processor
	TDP	65W
	Socket	LGA1200
	Chipset	Intel H420E
	BIOS	AMI EFI 64Mbit SPI
Memory	Technology	Dual channel DDR4 2400/2666/2933 MHz SDRAM (Non-ECC)
	Max. Capacity	64GB(32GB per socket)
	Socket	2 x 288-pin DIMM
Graphics	Controller	Integrated Intel UHD Graphics
	VRAM	Shared memory up to 256MB
	VGA	1 x up to 1920 x 1080 @60Hz
	HDMI	1 x up to 4096 x 2160 @30Hz
	DisplayPort	1 x up to 4096 x 2304 @60Hz
	LVDS (option)	1 x dual channel LVDS
	Dual Display	VGA+HDMI, VGA+DP, VGA+LVDS, HDMI+DP, HDMI+LVDS, DP+LVDS
Ethernet	Interface	10/100/1000/2500 Mbps
	LAN 1 Controller	Intel i226-V (2.5G)
	LAN 2 Controller	Intel i226-V (2.5G)
	Connector	2 x RJ-45
Expansion Slot	PCIe x16 (Gen3)	1
	PCIe x1 (Gen3)	3
	PCI	3
Storage	SATA 3.0	2 (600MB/s per port)
	M.2	2 x M.2 B Key (support B Key and B/M Key SSD, not support M Key), only support SATA (not support NVMe)
Rear I/O Connector	Serial	1 x RS-232, 1 x RS-232/422/485(Default RS-232)
	VGA	1
	HDMI	1
	DisplayPort	1
	RJ-45	2
	USB 3.2 (Gen1)	6
	HD Audio	1 (Line-in, Line-out, Mic-in)
Internal Connector	USB 2.0	4
	Serial	1 x RS-485, 7 x RS-232
	SATA 3.0	2
	LVDS	2 (Option)
	CPU Fan	1 (4pin)
	System Fan	2 (4pin)
	Front Audio	1
	Speaker	1 (Option, 8Ω25W x 2)
	GPIO	8-bit (5V)
	Case Open	1
	Front Power LED	1
	Front HDD LED	1
	Security	TPM
Watchdog Timer	Output	System reset
	Interval	Programmable 1-60 sec/min
Power	Power Type	ATX
	Power Connector	1 x 24-pin ATX, 1 x 8-pin ATX 12V
Environment	Operation Temperature	0 ~ 60° C (32 ~ 140° F)
	Non-Operation Temperature	-40 ~ 85° C (-40 ~ 185° F)
	Operation Humidity	40° C@90% relative humidity, non-condensing
Physical Characteristics	Dimensions	304.8 x 220 mm (ATX)

Block Diagram



Ordering Information

Part Number	Chipset	Memory	VGA	DP	HDMI	LVDS	2.5GbE LAN	USB 3.2 Gen1	USB 2.0	COM	M.2	SATA	PCI	PCIex1	PCIe	TPM	AMP	ATX/AT Mode
SIMB-986-NL2A1	H420E	2	1	1	1	(1)	2	6	4	10	2	2	3	3	1	(1)	(1)	ATX

() means BOM option

Packing List

Part Number	Description	Quantity
NA	I/O port bracket	1
NA	Startup manual	1

Optional Accessories

Part Number	Description
1960053207N001	LGA1150 CPU cooler for CPU TDP 65W,92.9 (W) x 92.9 (L) x 46 (H) mm
1960047669N001	C.L R3 I-LGA1156 S-95W 12V0.4A 95.0 x 95.0 x 69.37mm

Note 1: Purchasing SIMB-986's proprietary CPU cooler from Advantech is a must. Other brands' CPU coolers are NOT compatible with SIMB-986.

Note 2: 1960047669N001 cooler for 95~125W CPU is tested with ACP-4000/IPC-610H chassis.

I/O View

