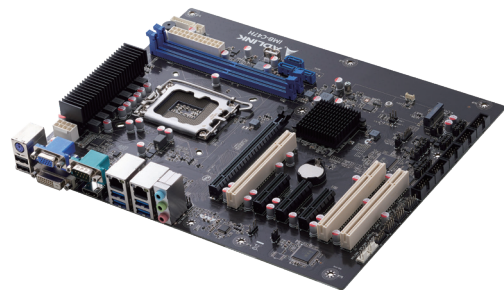


IMB-C47H

Industrial ATX Motherboard supporting
 Intel® Core™ Series 2 Processors and 14/13/12th Gen Intel® Core™ Processors

Features

- Value Series Industrial ATX Motherboard supporting Intel® Core™ Series 2 Processors and 14/13/12th Gen Intel® Core™ Processors with H610 Chipset
- 2x DDR5 4400MHz memory up to 64GB
- Three independent displays: DVI-D, HDMI, VGA
- Dual GbE ports: 2x 1GbE
- Expansion slots: PCIe x16, PCIe x4, PCI, M.2 M-key 2242/2280



Ordering Information

PN	Model Name	Chipset	Memory	PCIe x16	PCIe x4	PCI	DVI	HDMI	VGA	LAN	COM	SATA	M.2	USB2.0	USB3.0 (Gen1)	RAID
95-13020-00	IMB-C47H	H610	Non-ECC DDR4 3200 MHz	1	3	3	1	1	1	2	6	3	1 (SATA)	6	4	No
95-13020-10	IMB-C47H/ NVMe	H610	Non-ECC DDR4 3200 MHz	1	2	3	1	1	1	2	6	4	1 (NVMe)	6	4	No
95-13020-20	IMB-C47H/ DDR5	H610	Non-ECC DDR5 4400 MHz	1	3	3	1	1	1	2	6	3	1 (SATA)	6	4	No
95-13020-30	IMB-C47H/ NVMe/DDR5	H610	Non-ECC DDR5 4400 MHz	1	2	3	1	1	1	2	6	4	1 (NVMe)	6	4	No

Packing List

PN	Description	QTY
95-13020-00	IMB-C47H	1
N/A	IMB-C47H I/O Shield	1
95-13020-10	IMB-C47H/NVMe	1
N/A	IMB-C47H/NVMe I/O Shield	1
95-13020-20	IMB-C47H/DDR5	1
N/A	IMB-C47H/DDR5 I/O Shield	1
95-13020-30	IMB-C47H/NVMe/DDR5	1
N/A	IMB-C47H/NVMe/DDR5 I/O Shield	1

Optional Accessories

PN	Description
32-20976-0000-A0	CPU cooler For 65W CPU
30-25010-3010	USB 2.0 Cable (2 ports)
30-25009-3000	USB 2.0 Cable (4 ports)
30-10057-7000	SATA Cable
30-25003-3000	COM Cable (2 ports, L=450mm)
30-25003-5000-A0	COM Cable (2 ports, L=600mm)

Embedded OS

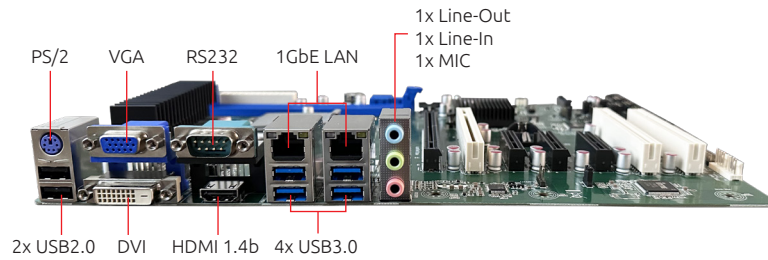
PN	Description
92-56094-0010	Windows 10 IoT Ent LTSC 2021 High End PKEA
92-56094-2010	Windows 10 IoT Ent LTSC 2021 Value PKEA
92-56094-4010	Windows 10 IoT Ent LTSC 2021 Entry PKEA

PN	Description
92-56102-0010	Windows 11 IoT Ent LTSC 2024 High End PKEA
92-56102-2010	Windows 11 IoT Ent LTSC 2024 Value PKEA
92-56102-4010	Windows 11 IoT Ent LTSC 2024 Entry PKEA

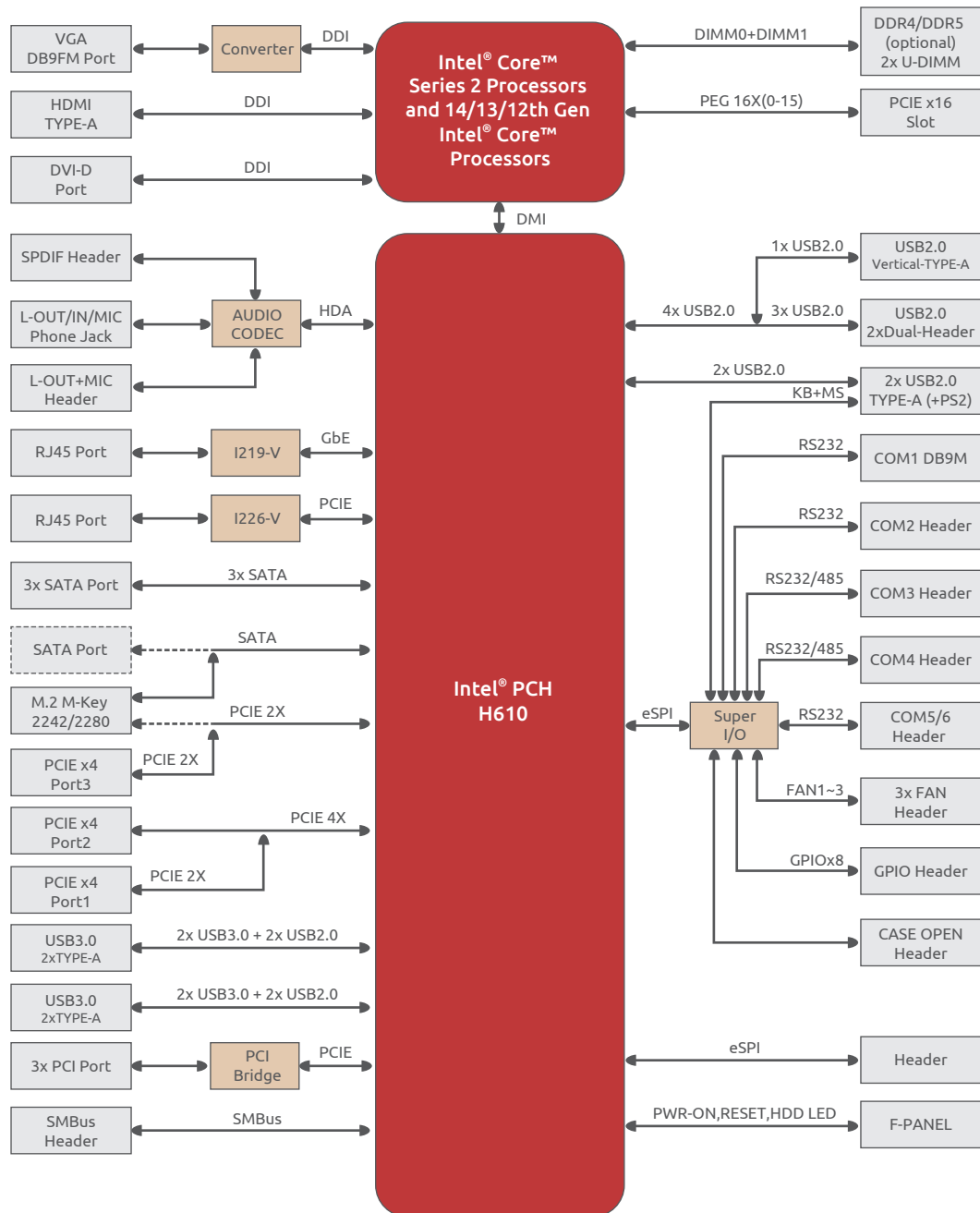
Specifications

Model	IMB-C47H	IMB-C47H/NVMe	IMB-C47H/DDR5	IMB-C47H/NVMe/DDR5	
Processor System					
CPU	Intel® Core™ Series 2 Processors and 14/13/12th Gen Intel® Core™ Processors, LGA1700, up to 65W				
Chipset	Intel® H610 Chipset				
Memory	2x 288-pin non-ECC U-DIMM sockets, Dual-channel DDR4 3200MHz, up to 64GB		2x 288-pin non-ECC U-DIMM sockets, Dual-channel DDR5 4400MHz, up to 96GB		
BIOS	BIOS AMI® UEFI BIOS, 256MB SPI Flash Memory				
Hardware Monitor	CPU voltage +3.3 V voltage +5 V voltage +12 V voltage CPU temperature System temperature CPU fan speed System fan speed				
Operating Systems	Microsoft® Windows® 10/11 64-bit				
I/O Interfaces					
Serial Ports	2x RS-232/485 by pin header 4x RS-232 (COM1 by DB9/M, others via headers)				
Ethernet	1x Intel® I226-V, 1GbE 1x Intel® I219-V, 1GbE				
SATA	3x SATA3.0	4x SATA3.0	3x SATA3.0	4x SATA3.0	
USB	4x USB 3.0 (rear I/O) 2x USB 2.0 (rear I/O) 4x USB 2.0 (via headers, 1x colay with vertical typeA)				
Expansion Slots	3x PCI 1x PCIe Gen4 x16 3x PCIe x4 (Support PCIe Gen3 x2 signal) 1x M.2 2242/2280 M-key (Support SATA SSD)				2x PCIe x4 slot (Support PCIe Gen3 x2 signal) 1x M.2 2242/2280 M-key (Support NVMe SSD)
DIO	8-bit GPIO				
PS/2	1x PS/2 keyboard & mouse pin header				
Audio					
Audio Codec	Realtek ALC897				
Interface	1x Line-out, 1x Line-in, and 1x Mic-in connector (rear I/O)				
Graphics					
Multiple Display	Three Displays				
DVI	1x DVI-D (DVI-I), max resolution up to 1920x1200 @ 60Hz				
HDMI	1x HDMI 1.4b, max resolution up to 4096x2160 @ 30Hz				
VGA	1x VGA, max resolution up to 1920x1200 @ 60Hz				
Mechanical and Environmental					
Form Factor	ATX				
Dimensions	305 mm x 244 mm (W x L)				
Operating Temperature	0°C to 60°C				
Storage Temperature	-20°C to 75°C				
Relative Humidity					
	60°C @ 95% RH, Non-condensing				
Certification					
	CE & FCC Class A				

Product Illustration



Block Diagram



CPU Support List

Family	Number	CPU Core	Frequency (GHz)	Cache (MB)	Power	Since BIOS
Bartlett Lake-S	273PE	12	2.3GHz	36MB	65	2.01.10
Bartlett Lake-S	273PTE	12	1.4GHz	36MB	45	2.01.10
Bartlett Lake-S	253PE	10	2.5GHz	33MB	65	2.01.10
Bartlett Lake-S	253PTE	10	1.8GHz	33MB	45	2.01.10
Bartlett Lake-S	223PE	8	2.9GHz	24MB	65	2.01.10
Bartlett Lake-S	223PTE	8	2.3GHz	24MB	45	2.01.10
Bartlett Lake-S	213PE	8	2.7GHz	24MB	65	2.01.10
Bartlett Lake-S	213PTE	8	2.1GHz	24MB	45	2.01.10
Bartlett Lake-S	251E	24	2.1 GHz	36MB	65	2.00.10
Bartlett Lake-S	251TE	24	1.4 GHz	36MB	45	2.00.10
Bartlett Lake-S	221E	14	2.7 GHz	24MB	65	2.00.10
Bartlett Lake-S	221TE	14	1.8 GHz	24MB	45	2.00.10
Bartlett Lake-S	211E	10	2.7 GHz	20MB	65	2.00.10
Bartlett Lake-S	211TE	10	1.7 GHz	20MB	45	2.00.10
Bartlett Lake-S	201E	4	3.6 GHz	12MB	60	2.00.10
Bartlett Lake-S	201TE	4	2.9 GHz	12MB	45	2.00.10
Raptor Lake-S Refresh	i9-14900T	24	1.1GHz	36MB	35	1.00.10
Raptor Lake-S Refresh	i9-14900	24	2.0GHz	36MB	65	1.00.10
Raptor Lake-S Refresh	i7-14700T	20	1.3GHz	33MB	35	1.00.10
Raptor Lake-S Refresh	i7-14700	20	2.1GHz	33MB	65	1.00.10
Raptor Lake-S Refresh	i5-14500T	14	1.7GHz	24MB	35	1.00.10
Raptor Lake-S Refresh	i5-14500	14	2.6GHz	24MB	65	1.00.10
Raptor Lake-S Refresh	i5-14400	10	2.5GHz	20MB	65	1.00.10
Raptor Lake-S Refresh	i3-14100T	4	2.7GHz	12MB	35	1.00.10
Raptor Lake-S Refresh	i3-14100	4	3.5GHz	12MB	60	1.00.10
Raptor Lake-S	i9-13900E	24	1.8GHz	36MB	65	1.00.10
Raptor Lake-S	i9-13900	24	2.0GHz	36MB	65	1.00.10
Raptor Lake-S	i7-13700E	16	1.9GHz	30MB	65	1.00.10
Raptor Lake-S	i7-13700	16	2.1GHz	30MB	65	1.00.10
Raptor Lake-S	i7-13700TE	16	1.1GHz	30MB	35	1.00.10
Raptor Lake-S	i7-13700T	16	1.4GHz	30MB	35	1.00.10
Raptor Lake-S	i5-13600	14	2.0GHz	24MB	65	1.00.10
Raptor Lake-S	i5-13500E	14	2.4GHz	24MB	65	1.00.10
Raptor Lake-S	i5-13500	14	2.5GHz	24MB	65	1.00.10
Raptor Lake-S	i5-13500T	14	1.6GHz	24MB	35	1.00.10
Raptor Lake-S	i5-13400	10	1.8GHz	20MB	65	1.00.10
Raptor Lake-S	i3-13100E	4	3.3GHz	12MB	60	1.00.10
Raptor Lake-S	i3-13100	4	3.4GHz	12MB	60	1.00.10
Raptor Lake-S	i3-13100T	4	2.5GHz	12MB	35	1.00.10
Alder Lake-S	i9-12900E	16	2.3GHz	30MB	65	1.00.10
Alder Lake-S	i9-12900	16	2.4GHz	30MB	65	1.00.10
Alder Lake-S	i7-12700E	12	2.1GHz	25MB	65	1.00.10
Alder Lake-S	i7-12700	12	1.6GHz	25MB	65	1.00.10
Alder Lake-S	i7-12700TE	12	1.4GHz	25MB	35	1.00.10
Alder Lake-S	i5-12500	6	3.0GHz	18MB	65	1.00.10
Alder Lake-S	i5-12500E	6	2.9GHz	18MB	65	1.00.10
Alder Lake-S	i5-12400	6	2.5GHz	18MB	65	1.00.10
Alder Lake-S	i3-12100E	4	3.2GHz	12MB	60	1.00.10
Alder Lake-S	i3-12100	4	3.3GHz	12MB	60	1.00.10
Alder Lake-S	i3-12100TE	4	2.1GHz	12MB	35	1.00.10
Alder Lake-S	G7400TE	2	3.0GHz	6MB	35	1.00.10