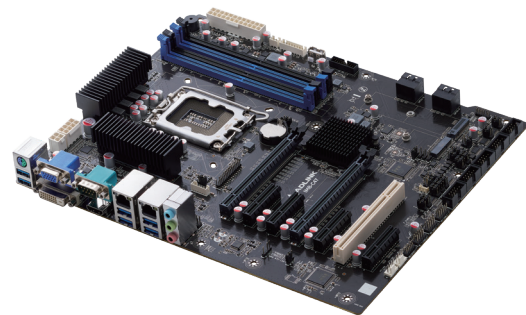


IMB-C47

Industrial ATX Motherboard for 12/13/14th Gen Intel® Core™ i9/i7/i5/i3 Processors

Features

- 14/13/12th Gen Intel® Core™ i9/i7/i5/i3 processors and Q670 chipset
- 4x DDR4 3200 MHz memory up to 128 GB
- Four independent display: DVI-D, HDMI, VGA, eDP
- Dual GbE ports: 1x 1GbE, 1x 2.5GbE
- Expansion slots: 2x PCIe x16, 4x PCIe x4, 1x PCI, 1x M.2 E-key 2230, 1x M.2 M-key 2242/2280



Ordering Information

PN	Model Name	Chipset	Memory	PCIe x16	PCIe x4	PCI	DVI	HDMI	VGA	eDP	LAN	COM	SATA	M.2	USB2.0	USB3.0 (Gen1)	RAID
95-13019-0000	IMB-C47	Q670	Non-ECC DDR4 3200 MHz	2	4	1	1	1	1	1	2	6	4	2	5	8	Yes

Packing List

PN	Description	QTY
95-13019-0000	IMB-C47	1
N/A	I/O bracket	1

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
92-56101-0010	Windows 11 IoT Ent 2022 High End PKEA
92-56101-2010	Windows 11 IoT Ent 2022 Value PKEA
92-56101-4010	Windows 11 IoT Ent 2022 Entry PKEA

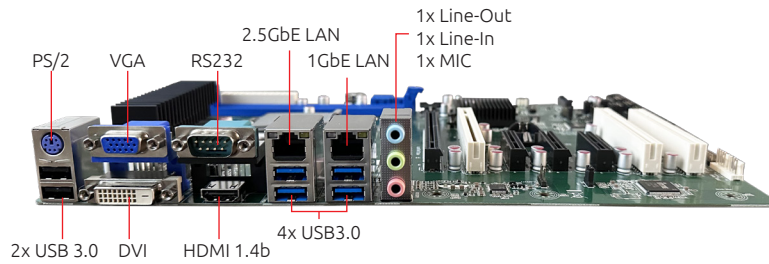
Optional Accessories

PN	Description
32-21041-0000-A0	CPU cooler for 125W CPU
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)
30-25046-0100	USB 3.0 Cable (2 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)

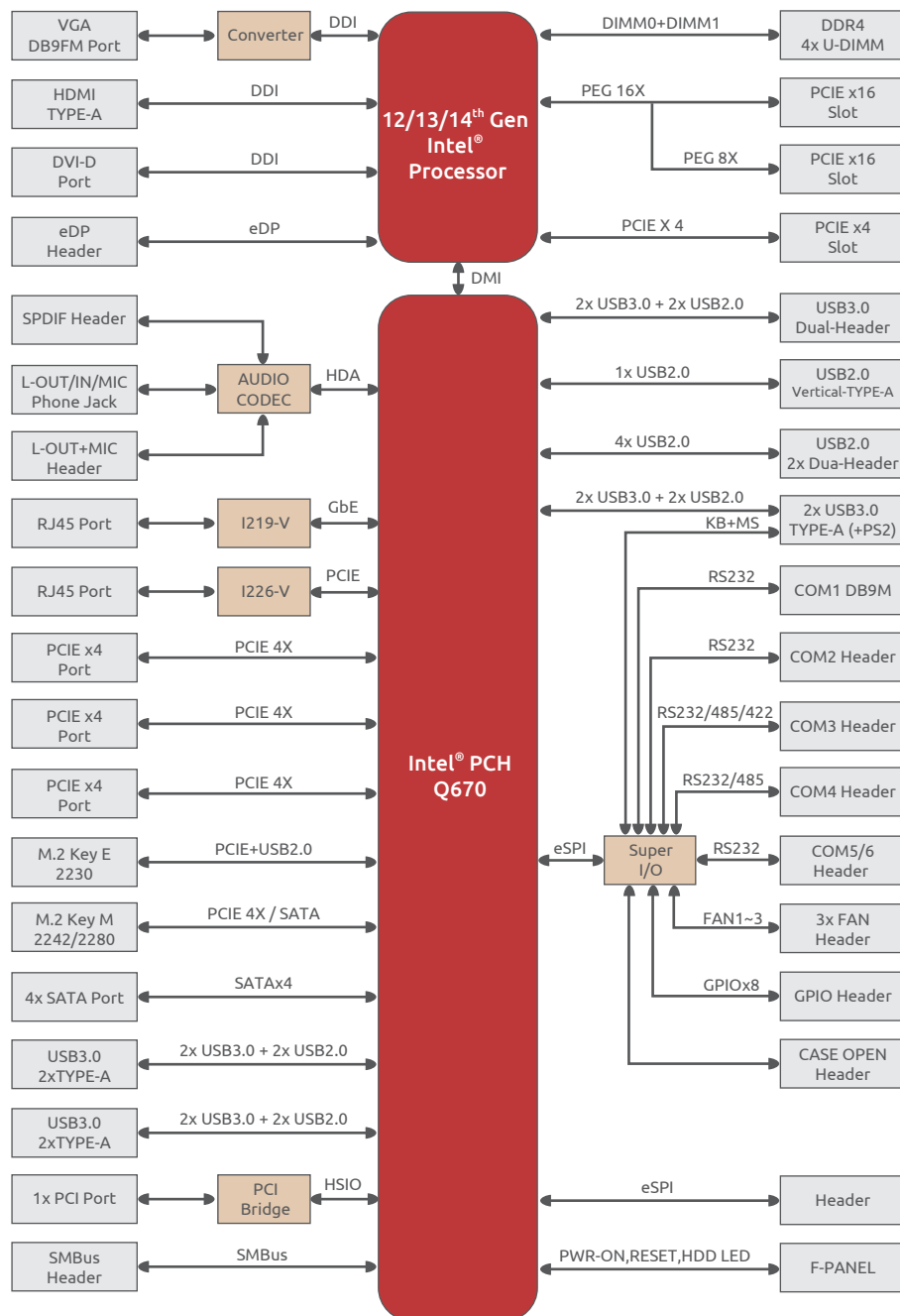
Specifications

Model	IMB-C47
Processor System	
CPU	14/13/12th Generation Intel® Core™ i9/i7/i5/i3 LGA1700 CPU, up to 125W
Chipset	Intel® Q670 Chipset
Memory	4x 288-pin non-ECC U-DIMM sockets Dual-channel DDR4 3200 MHz, up to 128 GB
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	1x RS-232/422/485 (via header) 1x RS-232/485 (via header) 4x RS-232 (COM1 by DB9/M, others via headers)
Ethernet	1x Intel® I226-V, 2.5GbE 1x Intel® I219-V, 1GbE
SATA	4x SATA3.0 connectors Intel® Software RAID support 0/1/5/10
USB	6x USB 3.0 (rear I/O) 2x USB 3.0 (via header) 4x USB 2.0 (via header) 1x USB 2.0 (vertical TypeA, internal)
Expansion Slots	2x PCIe x16 (Support PCIe Gen4 x8 signal) 4x PCIe x4 (Support 3x PCIe Gen4 x4 and 1x PCIe Gen3 x4 signal) 1x PCI 1x M.2 E-key 2230 (PCIe Gen3 x1, USB2.0, CNVi) for WIFI/Bluetooth Module 1x M.2 M-key 2242/2280 (PCIe Gen4 x4 NVMe/SATA Auto Detect) for 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	Four 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
eDP	1x eDP (via header), max resolution up to 4096x2304@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
Raptor Lake-S Refresh	i9-14900T	24	1.1GHz	36MB	35	1.00.10
Raptor Lake-S Refresh	i9-14900K	24	3.2GHz	36MB	125	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	i7-14700K	20	3.4GHz	33MB	125	1.00.10
Raptor Lake-S Refresh	i7-14700	20	2.1GHz	33MB	65	1.00.10
Raptor Lake-S Refresh	i5-14600K	14	3.5GHz	24MB	125	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	i9-13900K	24	3.0GHz	36MB	125	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	i7-13700K	16	2.5GHz	30MB	125	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	i5-13600K	14	2.6GHz	24MB	125	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	i9-12900K	16	2.4GHz	30MB	125	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	i7-12700K	12	2.7GHz	25MB	125	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	i5-12600K	10	2.8GHz	20MB	125	1.00.10
Alder Lake-S	i5-12500E	6	2.9GHz	18MB	65	1.00.10
Alder Lake-S	i5-12500	6	3.0GHz	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