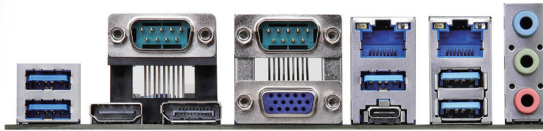
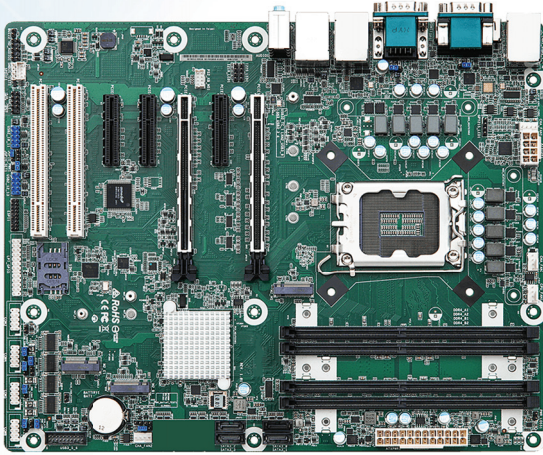
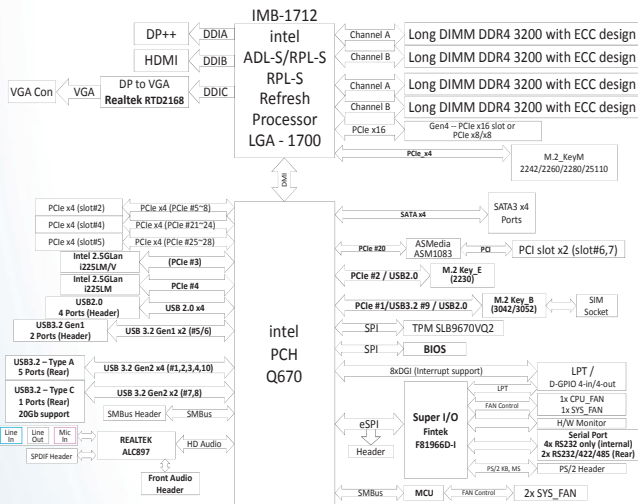


WI-IMB-1712

ATX Motherboard



BLOCK DIAGRAM



SPECIFICATION

Processor System

CPU	● Intel® 14th/13th/12th Gen (Raptor Lake-S Refresh/Raptor Lake-S/ Alder Lake-S) Core™ Processors, up to 125W
Chipset	● Intel® Q670
Socket	● LGA1700
BIOS	● AMI SPI 256 Mbit

Form Factor

Dimensions	● ATX (12-in x 9.6-in x 1.4-in, 30.5 cm x 24.4 cm x 3.6 cm)
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Memory

Technology	● Dual Channel DDR4 3200 MHz
Capacity	● 128 GB (32 GB per DIMM)
Socket	● 4 x 288-pin Long-DIMM

Graphics

Controller	● Intel® UHD Graphics
HDMI	● HDMI 2.0b ● Max resolution up to 4096x2160@60Hz
DisplayPort	● DisplayPort 1.4a, DP++ ● Max resolution up to 4096x2160@60Hz
VGA	● Max resolution up to 1920 x 1200@60Hz
MultiDisplay	● Triple Display

Expansion Slot

PCIe	● 2 x PCIe Gen4 Slots (PCIe1/PCIe3:single at x16(PCIe1); dual at x8 (PCIe1) / x8 (PCIe3)) (PCIe1: Support riser card x8/x8) ● 2 x PCIe x4 (Gen4) ● 1 x PCIe x4 (Gen3)
PCI	● 2 x PCI
M.2	● 1 x M.2 (Key E, 2230) with PCIe x1, USB 2.0 and CNVi for Wireless ● 1 x M.2 (Key B, 3042/3052) with PCIe x1, USB 3.2 Gen1, USB 2.0 and SIM for 4G/5G
SIM Socket	● 1 x SIM socket connected to M.2 Key B

Audio

Interface	● Realtek ALC897, High Definition Audio. Line-In / Line-Out / Mic-In
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Ethernet

Controller/ Speed	● LAN1: Intel® I225LM with 10/100/1000/2500 Mbps, supports vPro ● LAN2: Intel® I225LM/I225V with 10/100/1000/2500 Mbps
Connector	● 2 x RJ-45

Rear I/O

HDMI	● 1 x HDMI 2.0b
DisplayPort	● 1 x DP 1.4a++
VGA	● 1
Ethernet	● 2 x 2.5 Gigabit LAN
USB	● 5 x USB 3.2 Gen2 ● 1 x USB 3.2 Gen2x2 (Type C, 5V/3A)
Audio	● 3 (Line-In, Line-Out, Mic-In)
COM	● COM1, COM2 (RS-232/422/485)

Internal Connector

USB	● 2 x USB 3.2 Gen1 (1 x USB 3.2 header) ● 4 x USB 2.0 (2 x 2.54 pitch header)
COM	● COM3, COM4, COM5, COM6 (RS-232)
Parallel	● 1 (shared with GPIO)
GPIO	● 8 x GPI, 8 x GPO (shared with LPT header)
PS/2	● 1 x PS2 header
Thunderbolt header	● 1 (only support by PCIe4)

Security

TPM	● TPM 2.0 onboard IC
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Storage

M.2	● 1 x M.2 (Key M, up to 25110) with PCIe Gen4 x 4 for SSD
SATA	● 4 x SATA3 (6Gb/s)
RAID	● Intel® VMD RAID 0/1/5/10 ● **supported by identical interface (PCIe or SATA) ● PCIe interface: M.2 Key B + M.2 Key M ● SATA interface: SATA port

Watchdog Timer

Output	● From Super I/O to drag RESETCON#
Interval	● 256 segments, 0,1,2...255sec

Power Requirements

Input PWR	● ATX PWR (8+24 Pin)
Power On	● AT/ATX Supported - AT : Directly PWR on as power input ready - ATX : Press button to PWR on after power input ready

Environment

Operating Temp	● -20°C ~ 70°C
Storage Temp	● -40° C – 85° C
Operating Humidity	● 5% ~ 90%
Storage Humidity	● 5% ~ 90%