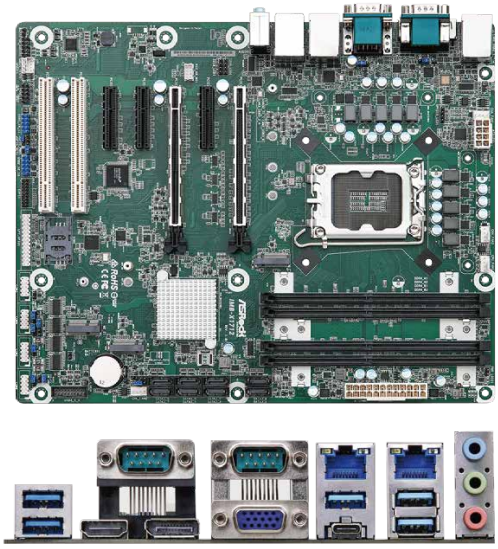
ASRock Industrial

IMB-X1712

ATX Motherboard



KEY FEATURES

- Intel® 13th/12th Gen (Raptor Lake-S/Alder Lake-S) Core™ Processors with W680 chipset
- 4 x 288-pin ECC/non-ECC Long-DIMM DDR4 3200 MHz, up to 128GB(32GB per DIMM)
- 1 x PCIe x16 (Gen4), 1 x PCIe x8 (Gen4), 2 x PCIe x4 (Gen4)
- 1 x PCIe x4 (Gen3), 2 x PCI
- 1 x USB3.2 Gen2x2 Type C, 5 x USB 3.2 Gen2, 2 x USB 3.2 Gen1, 4 x USB 2.0
- 1 x M.2 Key B, 1 x M.2 Key E, 1 x M.2 Key M
- 6 x COM, 8 x SATA3
- 3 x Intel 2.5 Gigabit LAN
- Supports Triple display, 1 x HDMI 2.0b, 1 x DP1.4a, 1 x VGA
- TPM 2.0 onboard IC
- Supports Intel® vPro, AMT, VMD RAID 0/1/5/10
- ATX PWR (8+24 Pin)

SPECIFICATIONS

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)

Processor System

CPU	Intel® 13th/12th Gen (Raptor Lake-S/Alder Lake-S) Core™ Processors, up to 125W
Chipset	Intel® W680
Socket	LGA1700
BIOS	AMI SPI 256 Mbit

Memory

Technology	Dual Channel ECC/non-ECC 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, USB3.2 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

Ethernet

Controller/ Speed	LAN1: Intel® I225LM with 10/100/1000/2500 Mbps, support AMT/vPro LAN2: Intel® I225LM with 10/100/1000/2500 Mbps LAN3: Intel® I225LM with 10/100/1000/2500 Mbps
Connector	3 x RJ-45

Rear I/O

HDMI	1 x HDMI 2.0b
DisplayPort	1 x DP 1.4a++
VGA	1
Ethernet	3 x 2.5 Gigabit LAN
USB	5 x USB 3.2 Gen2 1 x USB 3.2 Gen2x2 (Type C)
Audio	3 (Mic-in, Line-in, Line-out)
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)
TPM	TPM 2.0 onboard IC
PS2	1 x PS2 header
Thunderbolt header	1 (only PCIE4 support)

Storage

M.2	1 x M.2 (Key M, 3042/2260/2280/22110/25110) with PCIe Gen4 x4 for SSD
SATA	8 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	0°C ~ 70°C
Storage Temp	-40° C ~ 85° C
Operating Humidity	5% ~ 90%
Storage Humidity	5% ~ 90%

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