

iEPF-10000S Series

Expandable Edge AIoT Platform

ASRock®
— Industrial —



KEY FEATURES

- ASRock Industrial ATX Industrial Motherboard IMB-1714 or IMB-X1714 inside.
- Intel® 14th/13th Core™ Processor, up to 125W.
- 4 x 288-pin Long-DIMM DDR5, up to 192GB (48GB per DIMM).
- PNY GEFORCE RTX® 4090 24GB option. NVIDIA Ada Lovelace Streaming Multiprocessors, 4th Generation Tensor Cores, and 3rd Generation RT Cores.
- ASRock Intel Arc A770 Challenger 16GB OC option. Intel® X® HPG Microarchitecture and Intel® X® Super Sampling (X®SS) support.
- ATX Power Supply 850W or 1000W option, Complies with ATX12V V3.0 & EPS12V V2.92.

SPECIFICATIONS

Mechanical

Dimensions (D x W x H)	597mm (D) x 206mm (W) x 455.1mm (H)
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Processor System

CPU	Intel® 14th/13th Core™ Processor, up to 125W. (Default Intel® Core™ i9-13900 Processor)
Chipset	Intel® Q670 (IMB-1714) or Intel® W680 (IMB-X1714). Default is IMB-1714.
Socket	LGA1700
BIOS	AMI SPI 256 Mbit

Memory

Technology	DDR5 4400 MHz (2DPC - 1DIMM), DDR5 4000 MHz (2DPC - 2DIMM 1R), DDR5 3600 MHz (2DPC - 2DIMM 2R), ECC feature only supported by IMB-X1714.
Capacity	192GB (48GB per DIMM)
Socket	4 x 288-pin Long-DIMM

CPU 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

Audio

Interface	Realtek ALC897, High Definition Audio. Line-in, Line-out, Mic-in (Rear Side)
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Preliminary

MB Expansion Slot

PCIe	2 x PCIe Gen5 Slots (PCIe1/PCIe4:single at x16(PCIe1); dual at x8 (PCIe1) / x8 (PCIe4)) (PCIe1: Support Riser card x8/x8), 2 x PCIe x4 (Gen4), 3 x PCIe x1 (Gen3)
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

Ethernet

Controller/ Speed	LAN1: Intel® I226V with 10/100/1000/2500 Mbps, supports PoE (IEEE 802.3at). LAN2: Intel® I226LM with 10/100/1000/2500 Mbps, supports vPro LAN3: Intel® I226V with 10/100/1000/2500 Mbps
Connector	3 x RJ-45

MB 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, 5V/3A)
Audio	3 (Mic-in, Line-in, Line-out)
COM	COM1, COM2 (RS-232/422/485)

MB Internal Connector

USB	2 x USB 3.2 Gen1 (Chassis front side), 2 x USB 2.0 Type-A internal vertical connector), 2 x USB 2.0 (1 x 2.54 pitch header)
COM	COM3, COM4, COM5, COM6 (RS-232)
Parallel	1
GPIO	8 x GPI, 8 x GPO (shared with LPT header)
PS2	1 x PS2 header
Thunderbolt header	1

Storage

M.2	1 x M.2 2280 (Key M) PCIe Gen4 x4 SSD (Default 2TB) 1 x M.2 2280 (Key M) PCIe Gen3 x4 SSD (IMB-X1714 only)
SATAIII	2.5"/3.5" HDD bays x 5
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 x1 or x2 (IMB-X1714 only) SATA interface: SATA port

Security

TPM	TPM 2.0 onboard IC
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Power Requirements

Power Supply Unit	Rated Output Power 850W(Default), Input Voltage 100-240V, Input Current 11-5.5A, Input Frequency 50-60Hz Rated Output Power 1000W, Input Voltage 100-240V, Input Current 12-6A, Input Frequency 50-60Hz
Power On	AT/ATX Support - AT: Directly PWR on as power input ready - ATX: Press button to PWR on after power input ready

Discrete Graphic Card Option

PNY GEFORCE RTX® 4090 24GB	NVIDIA® CUDA Cores 16384 Clock Speed 2235 MHz Boost Speed 2520 MHz Memory Speed 21 Gbps Memory Size 24GB GDDR6X Memory Interface 384-bit Memory Bandwidth 1008 Gbps Outputs DisplayPort 1.4 (x3), HDMI 2.1 Multi-Screen 4 Resolution 7680 x 4320 @120Hz (Digital) Bus Type PCI-Express 4.0 x16
ASRock Intel Arc A770 Challenger 16GB OC (A770 CL 16GO)	Intel® XMX Engines 512 Engine Clock 2150 MHz Memory 16GB GDDR6 Memory Clock 17.5 Gbps Memory Interface 256-bit Outputs 3x DisplayPort 2.0 up to UHBR 10*, HDMI 2.1 *Designed for DP 2.0, certification pending VESA CTS Release. Multi-Screen 4 Resolution 7680 x 4320(Digital) Bus Type PCI-Express 4.0 x16