

iEPF-10000S (Arrow Lake-S) Series

Expandable Edge AIoT Platform

ASRock®
— Industrial —

Preliminary



KEY FEATURES

- Supported NVIDIA GPU (1~2pcs): RTX 6000 Ada, RTX 5000 Ada, RTX A4500 Ada, RTX 4000 Ada, RTX A4000 SFF Ada, RTX 2000 Ada
- Supported Intel GPU (1~2pcs): Arc A770, Arc B580, Intel Arc Pro B60, Intel Arc Pro B50
- Intel® Core™ Ultra processor (Arrow Lake-S), up to 125W
- 4 x 288-pin Long-DIMM DDR5, up to 256GB (64GB per DIMM)
- ATX Power Supply 850W or 1000W option
- Seven PCIe slots chassis to support up to 2pcs dual width graphic cards or 2pcs triple width graphic cards.

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® Core™ Ultra processor (Arrow Lake-S), up to 125W
Chipset	Intel® Q870 or Intel® W880 SKU (Option)
Socket	LGA1851
BIOS	AMI SPI 256 Mbit

Memory

Technology	Dual Channel ECC/non-ECC DDR5 6400/5600 MHz ECC feature only supported by W880
Capacity	256GB (64GB per DIMM)
Socket	4 x 288-pin Long-DIMM

CPU Graphics

Controller	Intel® Xe LPG Graphics
HDMI	HDMI 2.1 TMDS Max resolution up to 7680x4320@60Hz
DisplayPort	DisplayPort 1.4a, DP++ Max resolution up to 4096x2160@60Hz
MultiDisplay	Quad display (Included 2 output from Type-C)

Audio

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

PCIe	2 x PCIe Gen5 Slots (PCIe1/PCIe5: single at x16 (PCIe1); dual at x8 (PCIe1) / x8 (PCIe5)) PCIe x4 (Gen4) for Q870 SKU or 3 x PCIe x4 (Gen4) for W880 SKU 2 x PCIe x1 (Gen4)
M.2	1 x M.2 (Key E, 2230) with PCIe Gen4 x1, USB 2.0 and CNVi for Wireless 1 x M.2 (Key B, 3042/3052) with PCIe Gen4 x1, USB 2.0

Ethernet

Controller/ Speed	LAN1: Intel® I219LM with 10/100/1000 Mbps, supports vPro LAN2: Intel® I210AT with 10/100/1000 Mbps LAN3: Marvell AQC113 with 10/100/1000/2500/5000/10000 Mbps (Option for W880 SKU)
Connector	2 or 3 x RJ-45

MB Rear I/O

HDMI	2 x HDMI 2.1 TMDS
DisplayPort	1 x DP 1.4a++
Ethernet	2 x 1 Gigabit LAN 1 x 10 Gigabit LAN (Option for W880 SKU)
USB	5 x USB 3.2 Gen2 1 x USB4/Thunderbolt™4 (5V/3A, supports DP 2.1 display output) * For Thunderbolt support, please refer to support list.
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) 1 x USB 3.2 Gen2 vertical Con 2 x USB 2.0 (1 x USB2 header) 1 x USB4/Thunderbolt™4 (5V/3A, supports DP 2.1 display output) * For Thunderbolt support, please refer to support list
COM	COM3 (RS-232/TTL 5V/ccTalk, switch by Jumper setting) COM4, COM5, COM6 (RS-232)
Parallel	1 (shared with GPIO)
GPIO	8 x GPI, 8 x GPO (shared with LPT header)

Storage

M.2	1 x M.2 (Key M, 2242/2280/22110/25110) with PCIe Gen5 x4 for SSD 1 x M.2 (Key M, 2242/2280) with PCIe Gen4 x4 for SSD
SATAIII	2.5"/3.5" HDD bays x 4
RAID	Intel® VMD RAID 0/1/5/10 ***supported by identical interface (PCIe or SATA) PCIe interface: 2 x M.2 Key M 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 Rated Output Power 1000W, Input Voltage 100-240V
Power On	AT/ATX Support - AT: Directly PWR on as power input ready - ATX: Press button to PWR on after power input ready

Graphic Card option

NVIDIA Graphic Card	Description	QTY
RTX 6000 Ada	RTX 6000 Ada 48GB GDDR6, 300W	1~2pcs
RTX 5000 Ada	RTX 5000 Ada 32GB GDDR6, 250W	1~2pcs
RTX 4500 Ada	RTX4500 Ada 24GB GDDR6, 210W	1~2pcs
RTX 4000 Ada	RTX4000 Ada 20GB GDDR6, 130W	1~2pcs
RTX 4000 SFF Ada	RTX4000 SFF Ada 20GB GDDR6, 70W	1~2pcs
RTX 2000 Ada	RTX2000 Ada 16GB GDDR6, 70W	1~2pcs
Intel Graphic Card	Description	QTY
Arc A770	Arc A770, 16GB GDDR6, 225W	1~2pcs
Arc B580	Arc B580, 12GB GDDR6, 190W	1~2pcs
Arc Pro B60	Arc Pro B60, 24GB GDDR6, 200W	1~2pcs
Arc Pro B50	Arc Pro B50, 16GB GDDR6, 70W	1~2pcs