

iEPF-1 1000S Series

Expandable Edge AIoT Platform

ASRock®
— Industrial —

Preliminary



KEY FEATURES

- Supported NVIDIA GPU (1~4pcs): RTX 6000 Ada, RTX 5000 Ada, RTX A4500 Ada, RTX 4000 Ada, RTX A4000 SFF Ada, RTX 2000 Ada
- Supported Intel GPU (1~4pcs): Intel Arc Pro B60, Intel Arc Pro B50; Intel GPU (1~3pcs) Arc A770, Arc B580
- Intel® Xeon® W-3500/3400 and W-2500/2400 Series Processors with W790 chipset
- 8 x 288-pin ECC RDIMM/3DS DDR5 4400/4800 MHz, up to 2TB
- 1 x PCIe x16 (Gen5), 3 x PCIe x16 (Gen4), 1 x PCIe x8 (Gen4), 1 x PCIe x4 (Gen4), 1 x USB 3.2 Gen2x2, 5 x USB 3.2 Gen2, 2 x USB 3.2 Gen1, 3 x USB 2.0, 1 x M.2 Key E, 2 x M.2 Key M, 1 x M.2 Key B, 6 x COM, 8 x SATA3
- 1 x Marvell 10 Gigabit LAN (optional), 2 x Intel 2.5 Gigabit LAN
- TPM 2.0 onboard IC
- Support Intel® vPro, VMD RAID 0/1/5/10
- ATX Power Supply 1600W at 115-240V
- Eight PCIe slots chassis to support up to 4pcs dual width graphic cards or 2pcs triple width graphic cards

SPECIFICATIONS

Mechanical

Dimensions (D x W x H)	602.6 (D) x 175.0 (W) x 438.0 (H) mm. 4U tower and rackable, supports rack kit option: ear handle, slide rail, and CMA
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Processor System

CPU	Intel® Xeon® W-3500/3400 and W-2500/2400 Series Processors
Chipset	Intel® W790
Socket	LGA4677
BIOS	AMI SPI 256 Mbit

Memory

Technology	Quad Channel ECC DDR5 4400/4800 MHz* *1DPC 4800 MHz Natively for Xeon® W9, Xeon® W7 and Xeon® W5 2DPC 4400 MHz Natively for Xeon® W9, Xeon® W7 and Xeon® W5 Supports 4400 MHz Natively for Xeon® W3, W5-3423 and W5-3433
Capacity	2TB
Socket	8 x 288-pin RDIMM/RDIMM-3DS

MB Expansion Slot

PCIe	Chassis supports Eight PCIe slots. MB supports Six PCIe x16 connectors. (PCIe1 connector supports Gen5 x16 signal and dual slot width, PCIe2 connector supports Gen4 x16 signal and single slot width, PCIe3 connector supports Gen4 x8 signal and single slot width, PCIe4 connector supports Gen4 x8 signal and single slot width, PCIe5 connector supports Gen4 x4 signal and single slot width, PCIe6 connector supports Gen4 x16 signal and dual slot width. PCIe4 signal can be PCIe Gen4 x16 if PCIe3 is not occupied)
M.2	1 x M.2 (Key E, 2230) with PCIe Gen3 x1, USB 2.0 and CNVi for Wireless 1 x M.2 (Key B, 3042/3052) with PCIe Gen3 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

Front IO

USB	2 x USB 3.2 Gen1
Function	Power Button and LED, Reset Button, LAN1 LED, LAN2 LED, Storage LED, Line out

Rear I/O

Ethernet	LAN1: Intel® I226LM with 10/100/1000/2500 Mbps, supports vPro LAN2: Intel® I226V with 10/100/1000/2500 Mbps LAN3: Marvell AQC113 with 10/100/1000/2500/5000/10000 Mbps (optional)
USB	5 x USB 3.2 Gen2 1 x USB 3.2 Gen2x2 (Type-C, 5V/3A)
Audio	Realtek ALC897 HD, High Definition Audio. Line-In, Line-Out, Mic-In
Serial Port	COM3, COM4 (RS-232) COM1, COM2 (RS-232/422/485)

Internal Connector

USB	2 x USB 2.0 (1 x 2.54 pitch header) 1 x USB 2.0 (vertical con)
COM	COM5, COM6 (RS-232)
GPIO	4 x GPI, 4 x GPO

Storage

M.2	1 x M.2 (M2_M1) (Key M, 2242/2280/25110) with PCIe Gen4 x4 and SATA3 for SSD 1 x M.2 (M2_M2) (Key M, 2260/2280/25110) with PCIe Gen4 x4 for SSD
SATAIII	Default support 1*3.5" internal SATA HDD bay, or up to optional 8-Bay 2.5" SATA hot-swap module in two 5.25" area 8 x SATA3, SATA3_0 shared with M.2 Key M1
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 SATA interface: SATA port

Security

TPM	TPM 2.0 onboard IC
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Watchdog Timer

Output Interval	From Super I/O to drag RESETCON# 256 Segments, 0, 1, 2, ...255sec
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Power Requirements

MB Input PWR	1 x 24-pin ATX PWR connector 2 x 8-pin 12V PWR connector 1 x 8-pin and 1 x (6+2)-pin 12V PWR connector for PCIe AT/ATX Supported - AT: Directly PWR on as power input ready - ATX: Press button to PWR on after power input ready
Power Supply Unit	Rated Output Power 1600W at 115-240V

Graphic Card option

NVIDIA Graphic Card	Description	QTY
RTX 6000 Ada	RTX 6000 Ada 48GB GDDR6, 300W	1~4pcs
RTX 5000 Ada	RTX 5000 Ada 32GB GDDR6, 250W	1~4pcs
RTX 4500 Ada	RTX4500 Ada 24GB GDDR6, 210W	1~4pcs
RTX 4000 Ada	RTX4000 Ada 20GB GDDR6, 130W	1~4pcs
RTX 4000 SFF Ada	RTX4000 SFF Ada 20GB GDDR6, 70W	1~4pcs
RTX 2000 Ada	RTX2000 Ada 16GB GDDR6, 70W	1~4pcs
Intel Graphic Card	Description	QTY
Arc A770	Arc A770, 16GB GDDR6, 225W	1~3pcs
Arc B580	Arc B580, 12GB GDDR6, 190W	1~3pcs
Arc Pro B60	Arc Pro B60, 24GB GDDR6, 200W	1~4pcs
Arc Pro B50	Arc Pro B50, 16GB GDDR6, 70W	1~4pcs