

Rugged Edge AI Controller for Real-Time Industrial Computing



iEP-7050E



Accelerating Real-Time AI at the Industrial Edge with Intel® Core™ Ultra Series 3

The ASRock Industrial iEP-7050E Series is a high-performance Edge AI controller designed for robotics, machine vision, smart manufacturing, and autonomous systems. As industrial applications demand faster AI inference, deterministic computing, and reliable operation at the edge, the iEP-7050E combines high-performance computing with industrial-grade reliability in a compact fanless platform.

Powered by Intel® Core™ Ultra Series 3 processors, it integrates CPU, GPU, and NPU computing to deliver up to 180 total platform TOPS for accelerated AI inference at the edge. Intel® TCC and TSN enable deterministic real-time computing for time-critical industrial workloads. Its rugged fanless design, wide -25°C to 60°C operating temperature range, and comprehensive power protection support reliable operation in demanding environments. Modular configurations, including PoE, 5G/WiFi, digital I/O, CANBus, and out-of-band management, provide deployment flexibility across diverse applications.

By combining AI acceleration, real-time performance, industrial-grade reliability, and versatile connectivity, the iEP-7050E enables organizations to deploy intelligent edge solutions with reduced latency and less dependence on cloud infrastructure.

“Driving industrial innovation with intelligent edge computing.”

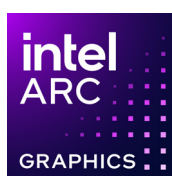
*Kenny Chang
ASRock Industrial
COO*

Intel Products and Technologies

Accelerating AI and Analytics at the Edge



Intel® Core™ Ultra
Series 3 Processors



Intel® Arc™
Graphics



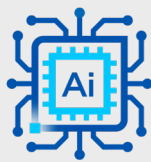
OpenVINO™
Toolkit



Intel®
Ethernet

Key Features

Empowered by Intel.



Up to 180 AI
TOPS



Rugged
Fanless Design



Deterministic Real-
Time Computing



Flexible
Modular I/O
Design

ASRock Industrial iEP-7050E



iEP-7050E-021/022



iEP-7050E-020/023/024/025

intel ai

Intel® AI Edge Systems

Product Specifications

CPU	Intel® Core™ Ultra X7 Processor 358H, 4P+8E+4LPE, 1.90 GHz, 25W
Graphics	Intel® Arc™ B390 GPU HDMI 2.1b
Memory	Dual Channel DDR5 7200 MHz, up to 128GB
Storage	M.2 2280 Key M (PCIe Gen5 x4)
Wireless Network	Support WiFi module on M.2 Key E
LAN	3 x Intel® Ethernet Controller I226-IT, 3 x Intel® Ethernet Controller I210-IT
Operating/Storage Temperature	-25°C~60°C / -40°C ~ 85°C
Dimension (W x D x H)	150mm x 60mm x 170mm (iEP-7050E-020/023/024/025) 150mm x 78mm x 170mm (iEP-7050E-021/022)
Weight	1.6~2.3kg
OS	Windows 11/Ubuntu 26.04 LTS (Kernel 7.0)
Rear I/O and Front I/O	PoE SKU: 2 x Intel® I210AT. PoE output max.15.4W/port, each port supports IEEE 802.3AF PoE. 8DIO SKU: 8DIs/8DOs with sink/source isolation 3KV, 2x10-pin connector CANBus SKU: 2 (15-pin D-sub connector) OOB SKU: Support Out-of-Band (OOB) remote management

Learn More

[ASRock iEP-7050E](#)

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