

iEP-7030E Series Industrial IoT Controller

ASRock
— Industrial —

Preliminary



Basic SKU

PoE SKU
5LAN-WiFi SKU
5LAN-5G SKU

5G-WiFi SKU

8DIO SKU

KEY FEATURES

- Intel® Core™ Ultra Processor (Meteor Lake-H Platform)
- Scalable power and performance in BGA for edge controller
- High Performance New Intel® Xe LPG Graphics Architectures
- New integrated NPU for Dedicated AI Acceleration
- Fan-less and Rugged Design
- Operating Temperature: -25°C to 50/70°C
- Wide Range Power Inputs: 9/19-36 VDC
- 3 x Intel i226-IT LAN
- 2 x Intel i210-AT LAN (Support IEEE 802.3AF PoE)
- Support Intel® IN-Band ECC

SPECIFICATIONS

System Core

Processor	Intel® Core™ Ultra 7/5 processor (Meteor Lake-H) - [iEP-7030E Series] Intel® Core™ Ultra 7 155H, 16C, 1.40GHz, 28W - [iEP-7031E Series] Intel® Core™ Ultra 5 125H, 14C, 1.20GHz, 28W
Video	1 x DP++ 1.4a, 1 x VGA
Memory	2 x DDR5 5600MHz SO-DIMM, up to 96GB (Support In-Band ECC)

I/O Interface

Ethernet	3 x Intel i226-IT (RJ45 connector) 2 x Intel i210-AT for PoE SKU/5LAN SKU (RJ45 connector)
PoE (Option)	2 x Intel® i210-AT (RJ45 connector), PoE output max.15.4W/port, each port supports IEEE 802.3AF PoE. (For PoE SKU)
Serial Port	4 x RS232/422/485
USB	3 x USB 3.2 Gen2x1 1 x USB 2.0
Proprietary IO	8DIs/8DOs with sink/source isolation 3KV, support for 8DIO SKU only (2x10-pin connector)
Audio	1 x Line Out, 1 x Mic In

Expansion

SIM	1 x Nano SIM Card slot
RF& Antenna (Option)	7 x SMA connector hole reserved, support for Basic/5G SKU 5 x SMA connector hole reserved, support for PoE/5LAN/8DIO SKU
M.2 Socket	1 x M.2 3042/3052/2280 Key B (PCIe Gen3/USB 3.2 mode) - Support 4G LTE/5G module 1 x M.2 2230/2260 Key E (CNVi / PCIe Gen3 / USB 2.0 mode) - Support Wifi/BT module

Manageability / Security

Manageability	WDT, Intel® In-Band Manageability
Security	TPM2.0

Power Requirements

DC Input	For Basic/5LAN/5G/8DIO SKU : - 2 x 3-pin phoenix type for 9 to 36V DC input For PoE SKU : - 2 x 3-pin phoenix type for 19 to 36V DC input OVP, UVP, OCP, plus 80V surge protection
AC to DC Adapter (Option)	Adapter 120W for Basic/5LAN/5G/8DIO SKU AC input 100-240Vac, 1.8A 50-60Hz, DC output 19V, 6.32A, Adapter 330W for PoE SKU only - AC input 100-240Vac, 4.2A 50-60Hz, DC output 24V, 13.75A

Storage Device

SD Slot	1 x Micro SD card slot (Support SD specification v3.0 UHS-I: SDR25/SDR50)
M.2 Socket	1 x M.2 2280 Key M (PCIe Gen4)

Mechanical

Dimensions	For Basic/8DIO SKU : 55(W) x 170(H) x 134(D) mm For PoE/5LAN/5G SKU : 68(W) x 170(H) x 134(D) mm
Indicator	1 x Storage LED 1 x UD LED (User Define) 2 x Diagnostic LED 2 x DC-IN LED
Function	1 x Power Button with LED
Net Weight	TBD
Mounting	For Basic/8DIO SKU : Wall mount, VESA mount, DIN-Rail For PoE/5LAN/5G SKU : Wall mount, Din Rail

Environmental

Operating Temperature	-25°C~50°C (-13°F~122°F) (w/ airflow 0.5~0.8m/s)
Storage Temperature	-40°C~85°C (-40°F~185°F)
Humidity	~95% @ 40°C (non-condensing)
Vibration	Operating: 5 Grms, 5-500 Hz, 3 axes with SSD
ESD	Contact +/-8 KV, Air +/-15 KV
Shock	Operating: 100G (half sine 11ms duration with SSD)
EMC	CE, FCC Class A (EN61000-6-4/-2)
Safety	LVD

Add-on Feature / OS Support

OS Support	Windows 11 & Linux
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Order Information	SKU	Processor	WiFi*	4G LTE/5G*	LAN	PoE	DIO
iEP-7030E-020	Basic SKU	155H	Support	Not Support	3	Not Support	Not Support
iEP-7031E-020		125H					
iEP-7030E-021	PoE SKU	155H	Support	Not Support	5	Support	Not Support
iEP-7031E-021		125H					
iEP-7030E-022	5LAN-WiFi SKU	155H	Support	Not Support	5	Not Support	Not Support
iEP-7031E-022		125H					
iEP-7030E-023	5LAN-5G SKU	155H	Not Support	Support	5	Not Support	Not Support
iEP-7031E-023		125H					
iEP-7030E-024	5G-WiFi SKU	155H	Support	Support	3	Not Support	Not Support
iEP-7031E-024		125H					
iEP-7030E-025	8DIO SKU	155H	Support	Not Support	3	Not Support	Support
iEP-7031E-025		125H					

*The Wi-Fi, 4G LTE and 5G module kits are purchased separately

Assured Systems

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