

Embedded Box Computer 2025 2H Sales Kit & Roadmap



EIOT, ECG, EBC

Edge+ Leading Embedded System Solutions



IOT Gateway



ARK-1100

- Compact, max 10 essential I/O
- Low power entry computing
- RF integrated & certified



AGV/AMR



ARK-1200

- DIN RAIL
- Max 12 essential I/O
- Up to ULV core i Computing



Equipment/Kiosk



ARK-2000

- Low Power Core i
- 15+ versatile I/Os
- I-door expansions



AI Vision/Equipment



ARK-3000

- Desktop+ Performance
- PCIe/PCI expansions
- 2~4 storage bays

EBC ARK-1100/1200 Series

Available

Developing

Planning

MP Time

Kick off Time

-40 ~ 70°C

-30 ~ 60°C

-20 ~ 60°C

-20 ~ 70°C

-30 ~ 70°C

Fanless AI



DIN Mount ARK-1200

ARK-1250

- Intel 11th gen 15W Core i CPU
- Max. 4 x GbE, 2 x HDMI, iDoor
- 12~24VDC in, -20 ~ 60°C
- 173 x 141 x 60mm

ARK-1251

- Intel 14th gen Ultra 5/7 series CPU
- High speed COM, CANFD, iDoor
- Edge BMC OOB Management
- 12~28VDC in, -20 ~ 60°C
- 173 x 141 x 60mm

ARK-1220F

- Intel Atom E3940
- 2 x Isolated COM & 2 x GbE
- 12~28VDC in, -30~60°C
- 158 x 114 x 60mm

ARK-1220L

- Intel Atom E3940
- 2xLAN, 2COM, 4xUSB
- 12~28VDC in, -20~70 °C
- 158 x 114 x 53.5mm

ARK-1221

- Intel Atom X6413E/N6210
- 2xLAN, 2COM, 4xUSB
- 12~28VDC in, -20 ~ 60°C
- 158 x 114 x 60mm

ARK-1222

- Intel ADL N97/AML X7433RE
- 4 x COM, iDoor
- 12~28VDC in, -40~70°C
- 158 x 114 x 60mm

May'25

ARK-1260

- Qualcomm QCS6490
- MIPI CSI
- 12~24VDC in, -20 ~ 60°C
- 158 x 114 x 60mm

Oct'26

Ultra Compact ARK-1100

ARK-1125H

- Intel ADL-N Quad Core N200
- 2 x HDMI, 2 x LAN
- WiFi 6E & 5G RED certified
- 12VDC in, -30 ~ 60°C
- 133 x 94.2 x 46.4mm

ARK-1125C

- Intel ADL-N X7211E
- 2 x COM, 8 bit DIO
- Energy Star Certified
- 12VDC in, -30 ~ 60°C
- 133 x 94.2 x 46.4mm

ARK-1126H/C

- Intel Twin Lake
- H: 2xHDMI/2xLAN, C: 4x COM
- Energy Star Certified
- 12VDC in, -30 ~ 60°C
- 133 x 94.2 x 46.4mm

Aug'26

ARK-1124H/C/U

- Intel E3940/N3350
- iDoor by AMO docking
- 12VDC in, -30 ~ 70°C for C/U SKU
- 133 x 94.2 x 46.4mm

ARK-1123H/C/L

- Intel J1900/E3825
- H-SKU with 2 LAN & 2 HDMI
- 12VDC in, -20 ~ 60°C
- 133 x 94.2 x 46.4mm

New Available

20252H

ADVANTECH

EBC ARK-2000/3000 Series

Available

Developing

Planning

MP Time

Kick off Time

-40 ~ 70°C

-30 ~ 60°C

-20 ~ 60°C

-20 ~ 70°C

-30 ~ 70°C

Fanless AI

Performance ARK-3000

Flexible ARK-2000

ARK-3532

- Intel 10th gen. 65W DT Core i
- Optional 3rd display
- PCI/PCIe x4/PCIe x16 slot
- 9-36VDC in, -20 ~ 60°C
- 156x204 x 230mm

ARK-3531

- Intel 8th/9th gen. 35W Core i
- 8x COM, 8 x USB
- 9-36VDC in, -20 ~ 60°C
- 200 x 215 x 75mm

ARK-3520

- Intel 6th gen. 45W Core i
- P SKU with PCI/PCIe expansion
- 1 x front accessible 2.5" drive
- 9-36VDC in, -20 ~ 60°C
- 233 x 220 x 101mm

ARK-3534

- Intel 14th gen. 65W DT Core i
- PCI/PCIe x4/PCIe x16 slot
- ECC memory & SW RAID on D SKU
- 9-36VDC in, -20 ~ 60°C
- 156x204 x 230mm

ARK-3533

- Intel 12/13/14th gen 35W Core i
- 4 x LAN, 8 x COM, 8 x USB
- 9-36VDC in, -20 ~ 60°C
- 200 x 215 x 75mm

ARK-3530

- Intel 6th gen. 65W DT Core i
- F SKU with PCI/PCIe slot expansion
- 2 x front accessible 2.5" drive
- 9-36VDC in, -20 ~ 60°C
- 230 x 205 x 105mm

ARK-2250

- Intel 6th gen Low power Core i
- iDoor + AMO expansions
- 12VDC in, -20 ~ 60°C
- 260 x 140.2 x 54mm

ARK-2230L

- Intel Celeron J1900
- iDoor + AMO expansions
- 12VDC in, -20 ~ 60°C
- 260 x 140.2 x 44mm

ARK-2121F

- Intel Celeron J1900
- 6x COM, 6x USB
- 9~36VDC in, -20 ~ 70°C
- 264.5 x 133x 68.4mm

ARK-2121L

- Intel Celeron J1900
- 2 x LAN, 4 x COM, 4 x USB, iDoor
- 9~36VDC in, -20 ~ 70°C
- 264.5 x 133x 68.4mm

ARK-3537

- Intel Bartlett S 12P, 65W, LGA
- PCI/PCIe x4/PCIe x16 slot
- 9-36VDC in, -20 ~ 60°C
- 156x204 x 230mm

Oct'25

ARK-3535

- AMD RYZEN 8845HS/8840U, BGA
- XDNA NPU with 16TOPS for AI
- 9-36VDC in, -20 ~ 60°C
- Dimensions TBD

Jan'26

ARK-3536

- Intel Intel Panther lake-H, 45W
- PCIe x8 for MXM GPU expansions
- 9-36VDC in, -20 ~ 60°C
- 156x204 x 230mm

Sep'25

ARK-2251

- Intel 13th gen 15W Core i3/5/7
- 3x LAN, 6x COM, 6x USB, iDoor
- Upgradable 2 ports PoE
- 12-24VDC in, -20 ~ 60°C
- 260 x 140.2 x 54mm

ARK-2232L

- Intel EHL E3940
- iDoor + AMO expansions
- 12VDC in, -20 ~ 60°C
- 260 x 140.2 x 44mm

ARK-2252

- Intel Intel Panther lake-H, 25W
- 3x LAN, 2xPoE, 6x COM/USB, iDoor
- 12-24VDC in, -20 ~ 60°C
- 260 x 140.2 x 54mm

Jul'25

ARK-2253

- AMD V4000, Zen5
- 3x LAN, 2xPoE, 6x COM/USB, iDoor
- 12-24VDC in, -20 ~ 60°C
- 260 x 140.2 x 54mm

Dec'25



New Available

20252H

ADVANTECH

Product Highlight

New Developing – ARK-3535



Jan,26

AMD  **39 TOPS AI Power**



Edge Computing Performance

- AMD® Ryzen 8000 Series 8845HS, 8840U, up to 54W (Hawk Point) total 39 TOPS
- Support DDR5 5600GHz, 96GB
- PCIe x16 Expansion
- Implementation button for clear CMOS behavior

Rich I/O, Easy Integration

- 1 x GbE LAN (OOB), 3 x 2.5 GbE,
- 4x USB3.2, 4 x USB2.0, 6 x COM, 1 x Audio , 2 x HDMI, Remote switch, 2 x CANBus, 16bit GPIO
- M.2 2280 B key for SSD
- M.2 2230 E key for WiFi module

Add-on GPU/AI Module	Power Consumption	CUDA Cores
NVIDIA, SKY-TESL-A2-16P	60W	1280
NVIDIA,SKY-QUAD-A1000-8	50W	2304
NVIDIA,SKY-QUAD-4000 Ada	70W	6144
NVIDIA,SKY-QUAD-2000A-16	70W	2816
NVIDIA, SKY-QUAD-RTXA2000B	70W	3328
Hailo, EAI-3300, (Hailo-8x2)	15W	--

ARK-1125 at One Glance

Value Performance

- Improved user experience over prior generations of entry processors.
(Intel Alder Lake N)
- Two SKUs with 2 and 4 cores CPUs
(x7211E and N200)
- DDR5 SO-DIMM 4800MHz, up to 16GB

I/O for Different Applications

- 2.5Gbps LAN ports, up to 2x
- 2x USB 3.2, 2x USB 2.0, up to 4x COM, up to 2x HDMI, CANBus, 8bit DIO
- M.2 B key for NVMe SSD, 5G /LTE
- M.2 E key for WiFi module, SSD
- M.2 M key for SSD (ARK-1125C only)
(Two SKUs have different I/O to meet demands from different applications)

Rugged Multi-functional Design

- Palm size at 133 x 46.4 x 94.2mm (5.24" x 1.83" x 3.71")
- -30-60°C of operating temperature
- IP40
- TPM 2.0 module onboard

Certifications

- CE, FCC
CB, UL
- CCC, BSMI, UKCA
- RED with selected wireless modules (AIW-170 and AIW-356)
- EnergyStar with selected memory, SSD and OS
- Chrome OS Flex Certified





ARK-1222 at One Glance



Phase In

2025/Q2

Longevity

2032/Q2

Small yet Smart and Strong

- Built with Intel® Amston Lake (x7433RE/TDP 9W) and Alder Lake N (N97/TDP 12W)
- Low Power Consumption with Atom®
- Built in wide-temp DDR5 16GB
- Support PCIe Gen3x2 NVMe SSD

Rich I/O, Easy Integration

- 2x 2.5 GbE
- 2x USB3.2, 2x USB2.0, 4x COM, 8bit GPIO, Line-in, Mic-out, and Remote switch
- Duel display with HDMI2.0
- M.2 B key, and E key for wireless connectivity and function expansion
- Optional CANBus Kit and idoor modules for I/O extension

Rugged Multi-functional Design

- operating temperature from -40~70°C
- 12-28V DC wide range power input
- IP4x
- TPM 2.0 on board
- Both DIN-Rail and wall mount ready
- Certification with CE, FCC, CB, UL, UKCA, CCC and BSMI

System Integration & Compatibility

- SUSI API for software integration
- Support Window 10/11 LTSC Enterprise
- Support Ubuntu 24.04 LTS



ARK-1251 at One Glance



Performance Boost

- Powered by Intel® 14th Core™ Ultra U Processors
- CPU, GPU, NCU combine as performance hybrid SoC
- Xe LPG Graphics Architecture, up to 128EU
- Support DDR5 5600 up to 96GB
- High speed PCIe Gen4x4 NVMe storage

Ruggedized Design

- -20~60°C of operating temperature
- 12-28V DC wide range power input
- IP4x
- TPM 2.0 on board
- Certification with CE, FCC, CB, UL, UKCA, CCC and BSMI

Rich I/O and Interfaces

- 2x 2.5 GbE, 1x 1 GbE for OOB
- 2x USB3.2, 4x USB2.0, 4x COM, 8bit DIO, Audio, and Remote switch
- Duel display with 1x DP 1xHDMI
- M.2 B key, and E key for wireless connectivity and function expansion
- Optional idoor modules for I/O extension

Equipment Management Built-in

- Out of Band Management powered by EdgeBMC
- OOB/Hardware monitoring/dashboard management via DeviceOn
- Edge AI development SDK for quick AI performance validation
- SUSI API for software integration

EdgeBMC OOB Management

1. Remote Power Control

Remote force shutdown
Reset system
System power saving mode



2. System Detection

System health status
System temperature
Fan speed



3. Remote BIOS Update

Remote update BIOS
Refresh BIOS when
BIOS update fail



4. Log Collection

Dump log for debug
system issue



5. API Integration

EdgeBMC API makes it
easier to adopt in
customer's existing system

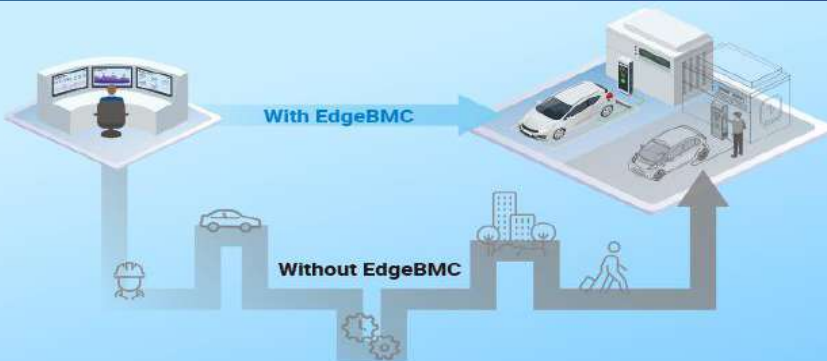


6. Versatile I/Os Control

Support
CANBus, COM, I2C/I3C
Integrate physical buttons
or sensors



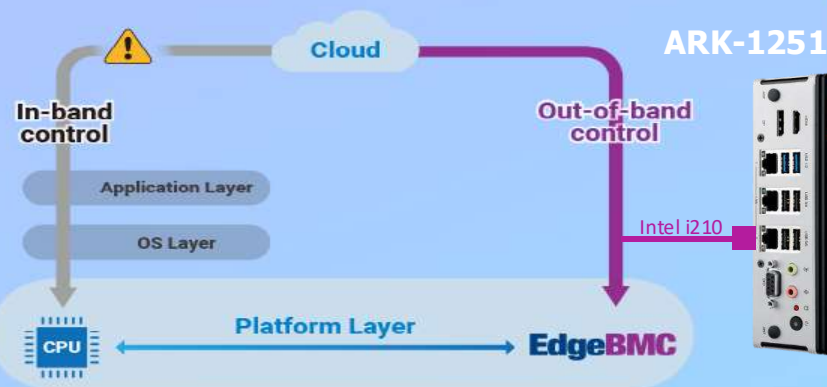
How EdgeBMC Works?



Instant Recovery, Shorten Downtime

Enables remote monitoring and control of a device at the hardware and firmware levels, even when the system is shut down or not in service while under AC-powered conditions. Saves significant time and cost during device crashes.

EdgeBMC Out-of-Band Mechanism



Edge computing Freeze/Crash

Unable to access through in-band communication.

Out-of-band Management

Allows access despite OS crashes.

Make Actions

Restart/shutdown system.

System Recovery

Recover anytime, anywhere, any condition.

Learn more about
EdgeBMC:



<https://campaign.advantech.online/en/EdgeBMC/>

EdgeBMC Control via Wise-DeviceOn

The screenshot displays the DeviceOn web interface. On the left is a sidebar with navigation links: Overview, Device, Application, Container, Settings, Dashboard, Event Log, and Account. The main area is titled 'List' and includes filter dropdowns for Account (root), Device Groups (All), and Status (All). Summary cards show 1 Connected, 1 Disconnected, and 0 Abnormal devices. Below these are icons for various actions and a search bar. A table lists two devices, both EdgeBMC models MIO-5354-002 and MIO-5354-001, each with a group count of 1. The first device's 'Full Function' section is expanded, showing options like Power, System Shield, Out-of-Band, Upgrade, and Back. The 'Out-of-Band' section is highlighted with an orange box, and a tooltip points to it with the text: 'Start to access the OOB(Out-of-Band) settings.'

DeviceOn

Overview

Device

Application

Container

Settings

Dashboard

Event Log

Account

List

Account: root

Device Groups: All

Status: All

1 Connected

1 Disconnected

0 Abnormal

2 record(s)

STATUS	DEVICE NAME	GROUP COUNT	FULL FUNCTION	WAKE-ON-LAN	MESSAGE	MORE
EdgeBMC	MIO-5354-002	1	Power			More...
EdgeBMC	MIO-5354-001	1	Power System Shield Out-of-Band Upgrade Back			

Start to access the OOB(Out-of-Band) settings.

Remote Management Controller Comparison

	1 Super IO	2 EC	3 EdgeBMC	4 BMC
 Application	Desktop/NB	Desktop/NB	Edge Computer	Server
 OOB Remote Control				
 Industrial Grade				
 Remote KVM / Console			 Console	 KVM
 Cost	Low	Low	Low	High

ARK-2251 Key Features

Scalable, High Performance

- Supports Intel 13th Gen desktop processors
- Core i3/i5/i7 CPU
- 10 cores : 2 P-cores, 8 E-cores
- Iris Xe[®] high performance graphics
- Support NVMe with PCIe x4



Rich I/O, Easy Integration

- 3x GbE, 4x USB3.1 and 2x independent USB3.1, 6x COM, 2x CANbus, 2x HDMI, 8bit DIO, Audio, Remote switch
- M.2 M key for NVMe storage devices
- M.2 2230 E key for Wifi modules
- mPCIe/mSATA for iDoors and storage
- Wireless (5G/LTE/Wifi) solution support

Rugged Multi-functional Design

- Optional iDoor modules
- Optional TPM module
- 12-24V DC wide range power input
- -20~60°C of operating temperature

Powered by DeviceOn/Kiosk+

- Real-time Kiosk device status in map
- Quick, easy, and secure Kiosk device zero-touch onboarding
- Remote controlling kiosk peripherals
- Selected key functions for kiosk management

EMC & Safety Certification

CE, FCC Class B, CB, UL, CCC, BSMI, ErP, UKCA



ARK-3534B: 1st IEC 62443-4-2 Certified Edge Computer



Certified Configuration:

- ARK-3534B
- TPM 2.0
- Secured BIOS
- Ubuntu 22.04 LTS
- Trellix

- IEC 62443-4-2 certified Edge computer
- EU Cyber resilience act (CRA), mandatory compliance in Oct, 2027
- International standards for Cybersecurity across different industry

Semiconductor

SEMI E187

Smart Manufacturing

IEC 62383-3, TC65

Medical

IEC 80001, IEC 62304,
SC62A

Energy

IEC 62351, TC57



TestPoint
YOUR IT SOLUTIONS PROVIDER

ADVANTECH

ARK-3533/3534 with 14th Gen CPU Supported

- 14th Gen CPU (Raptor Lake S Refresh) is compatible on ARK-3533/3534

BIOS version will be upgraded for the compatibility with 12th, 13th, and 14th Gen CPU.

Intel® Core™ processors (14th Gen) vs. prior-generation processors

Up to

1.05x (est.)

faster single-thread
performance⁷

Up to

1.18x (est.)

faster multithread
performance⁷

Up to

1.05x

faster in CPU plus GPU image-
classification inference performance⁷



ARK-3533 at One Glance

High Performance

- Intel 12th/13th/14th Gen Desktop Core i processor
- Supports Celeron/i3/i5/i7/i9 up to 16 cores UHD 770 high performance graphics
- Dual DDR5 SO-DIMM 4800MHz, up to 64GB
- One 1G Three 2.5G LAN ports

Rugged Multi-functional Design

- 9-36V DC wide range power input
- -40-60°C of operating temperature
- IP40
- TPM 2.0 module (optional)

EMC & Safety Certification

CE, FCC Class B, CB, UL, CCC, BSMI, ErP, UKCA

Rich I/O, Easy Integration

- 3x 2.5Gbps and 1x 1Gbps LAN ports
- Up to 4x USB3.2, 4x USB2.0, 8x COM, 2x Canbus or 16bit DIO
- M.2 B key for 5G /LTE module & NVMe
- M.2 key for WiFi module
- Optional 2PCI modules for riser card expansion

Equipment Management Built-in

- Supports industrial protocols for data integration
- Real-time computing and edge analytics
- Remote monitoring via a pre-installed dashboard

Powered by

WISE-DeviceOn

ARK-3534 at One Glance

High Performance

- Intel 12th/13th/14th Gen Desktop Core i processor
- Supports Celeron/i3/i5/i7/i9 up to 24 cores UHD 770 high performance graphics
- Dual DDR5 SO-DIMM 4800MHz, up to 64GB
- One 1G Three 2.5G LAN ports

Rugged Multi-functional Design

- 9-36V DC wide range power input
- -20-60°C of operating temperature
- IP40
- TPM 2.0 module (optional)

EMC & Safety Certification

CE, FCC Class B, CB, UL, CCC, BSMI, ErP, UKCA

Rich I/O, Easy Integration

- 3x 2.5Gbps and 1x 1Gbps LAN ports
- Up to 4x USB3.2, 4x USB2.0, 8x COM, 2x Canbus or 16bit DIO
- M.2 B key for 5G /LTE module & NVMe
- M.2 key for WiFi module
- PCIe and PCI expansions

Equipment Management Built-in

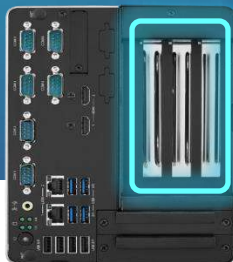
- Supports industrial protocols for data integration
- Real-time computing and edge analytics
- Remote monitoring via a pre-installed dashboard

Powered by

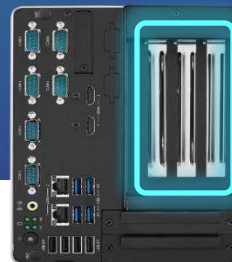
WISE-DeviceOn

ARK-3534 SKU Difference

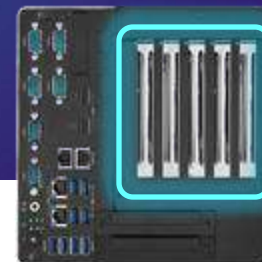
ARK-3534B



ARK-3534C



ARK-3534D

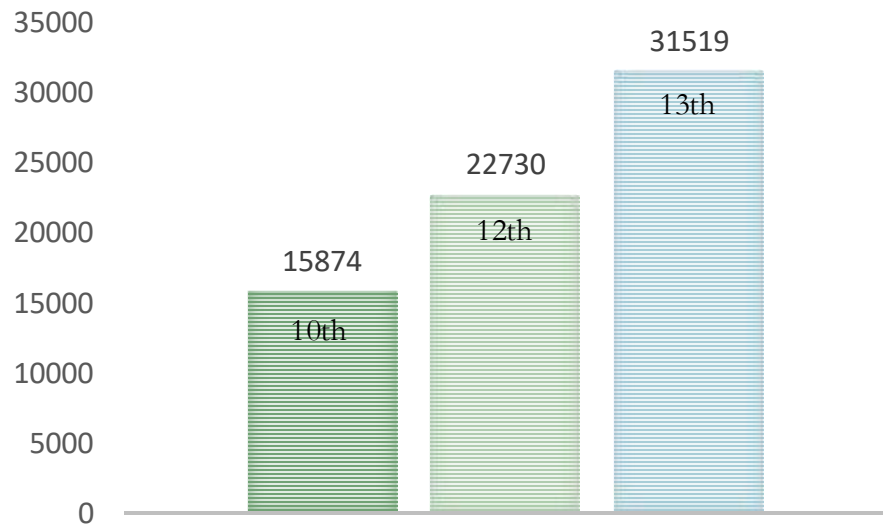


PCH	H610E	H610E	R680E
Memory	Non-ECC	Non-ECC	ECC/Non-ECC
LAN	2 (i219-LM, i225V)	2 (i219-LM, i225V)	4 (i219-LM, i225LM, i225LM, i225LM)
TSN	No	No	Yes
USB3.2	4	4	8
USB2.0	4	4	0
Intel SW RAID	N/A	N/A	Intel SW RAID 0, 1, 5
Expansion Slot	PClex4+PClex16 (2 Slot Space)	2PCI + PClex16	2PCI + PClex4+PClex16 (2 Slot Space)
Dimension	156 x 204 x 230mm	156 x 204 x 230mm	197.2 x 204 x 230mm

ARK-3534 Performance Boost

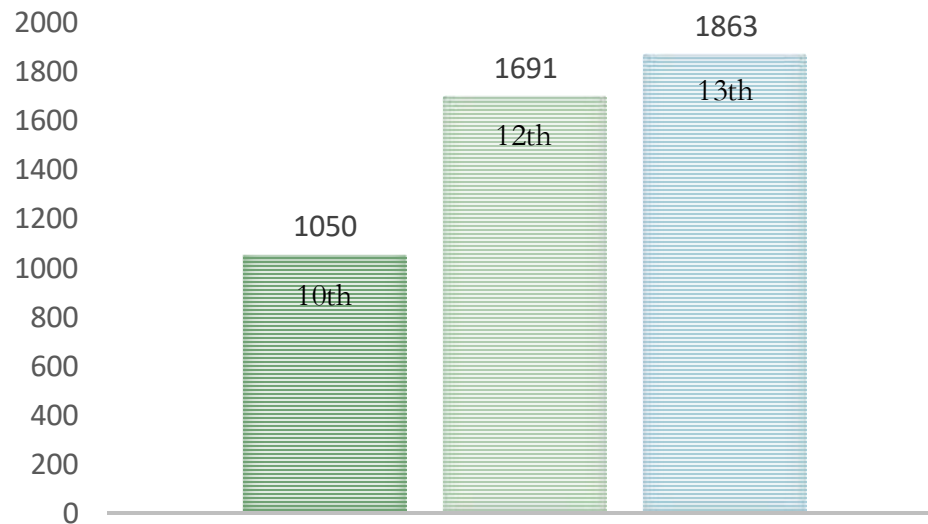
CPU PERFORMANCE

■ ARK-3532 ■ ARK-3534 12th Gen ■ ARK-3534 13th Gen



GRAPHIC PERFORMANCE

■ ARK-3532 ■ ARK-3534 12th Gen ■ ARK-3534 13th Gen



Supports AI Acceleration GPU Cards



ARK-3532/ARK-3534

Fanless Graphic Card Support up to 70W



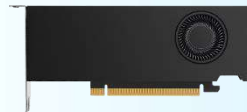
A2 Tensor

AMO-3508A/AMO-3509A Kit



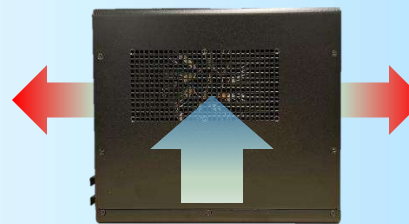
Dedicated Fan Duct Solution

Fan-Base Graphic Card Support up to 120W



RTX-A2000 Graphic Card

AMO-3508/AMO-3509 Kit



Reliable System Air-flow Design

ARK-3532/ARK-3534 are NVQual!



ARK-3532



NVQual with Tensor A2



ARK-3534



NVQual with RTX-A2000/A2000E



AI Integrated AOI System

Safeguarding Product Quality with Enhanced Efficiency



Advantech ARK-3532 + Graphic cards enables real-time AI inspection on AOI machines. The controlling system can take immediate reaction based on the detected results to enhance production quality and efficiency.



ARK-3532/ARK-3534



Cameras



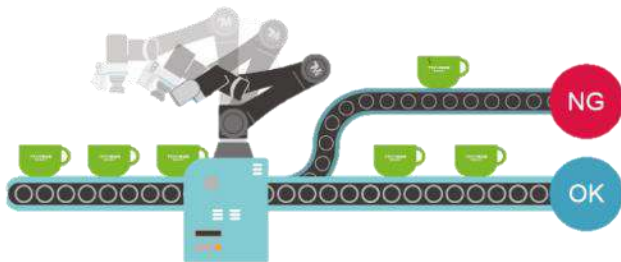
Lighting



Robotic Arm



Monitor



**PCIEx16
Graphic Cards**
Support up to 120W



**Intel EAI-3100 (Arc A370)
Intel EAI-3101 (Arc A380)**



Tesla T4



Tesla A2 Tensor



Quadro RTX-A2000

AI Acceleration on ARK - Intel, NVidia, Hailo

	GPU Brand	GPU P/N	NV Qual	Validation Schedule
ARK-3532		Tensor A2	Ready	
ARK-3534		RTX-A2000	Ready	
ARK-3534		EAI-3100	--	Ready
ARK-1250		968DD00322	--	Ready
ARK-1221		968DD00322	--	Ready
ARK-3533		968DD00322	--	Ready



Made In Taiwan SKU Status Update



Model	P/N (Made in Taiwan)	Status
ARK-1124H	ARK-1124H-S6A3U	Stock available
ARK-1250L	ARK-1250L-S5A1U, ARK-1250L-U2A1U	Stock available
ARK-1551	ARK-1551-S6A1U	Stock available
ARK-3532	ARK-3532C-00A1U	Stock available
ARK-1221L	ARK-1221L-S5A1U	Stock available
ARK-3534	ARK-3534B-00A1U	Stock available
ARK-3533	ARK-3533-00A1U	Stock available
ARK-2251	ARK-2251-S2A1U, ARK-2251-S3A1U	Stock available
ARK-1125	ARK-1125C-S0A1U, ARK-1125H-S0A1U	Stock available
ARK-1251	ARK-1251-S3A1U, ARK-1251-S7A1U	Stock available
ARK-3531	ARK-3531-00A2U	Stock available
ARK-1123H	ARK-1123H-U0A4U	Stock available
ARK-2121L	ARK-2121L-U0A2U	Stock available
ARK-1220L	ARK-1220L-S6A2U	Stock available

Win 11 LTSC 207 Image

Model	207 image Status	Datasheet
ARK-3534	Ready	Ready
ARK-3533	Ready	Ready
ARK-3532	Ready	Ready
ARK-1250	Ready	Ready
ARK-2251	Ready	Ready
ARK-1221	Ready	Ready

Embedded OS

Part Number	Description
20706WX1HS0034	WIN10 IoT LTSC 21H2 64bit for i7/i9
20706WX1VS0034	WIN10 IoT LTSC 21H2 64bit for i3/i5
20706U22DS0031	UbuntuD ARK-3534 64b 22.04 ENU
20706WLH1S0017	WIN11 IoT LTSC 2024 for i7/i9
20706WLV1S0017	WIN11 IoT LTSC 2024 for i3/i9

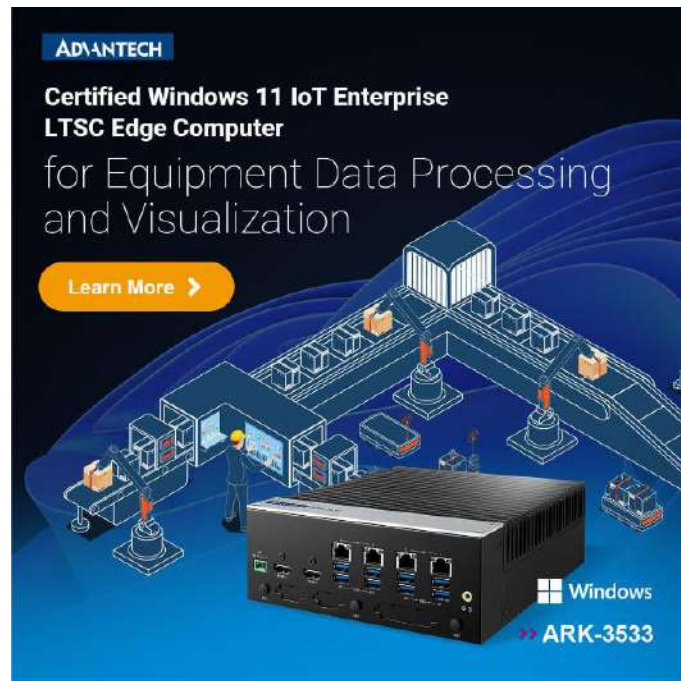


BIOS fTPM option for Win 11 Installation are all ready accept for Intel BYT model.

Call to action:



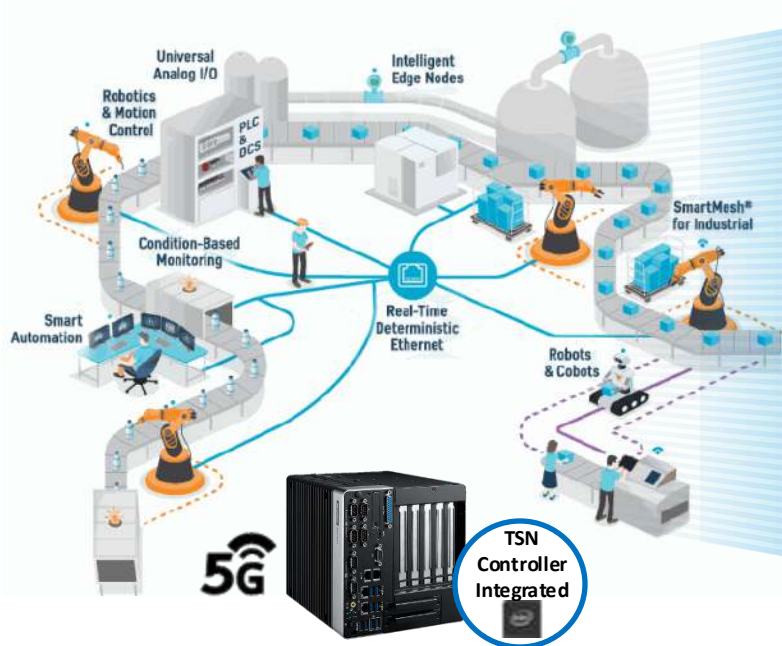
Please enable Win 11 207 P/N to your local CTOS configuration list.



New Technology

5G with TSN for Real-time Automation

Leveraging the combination of a real-time-capable communication technology (TSN) and real-time-capable language (OPC UA PubSub) makes it possible to realize real-time capable applications in an industrial environment based on standards and 5G technology.



Time Synchronization

Devices in network are synchronized with master timing



Low Latency

Have sub-microsecond precision to ensure precise control



High Availability

Supports Industrial 4.0 multiple protocol communications



Robustness

Times sensitive streams are delivered without interference from other traffic on the wire

5G with TSN for Real-time Automation

TSN Support: Enabling Real-time Communication

Our edge computers support real-time communication through Time Sensitive Networking (TSN) technology, helping customers fulfill the needs of time-synchronized applications and IT/OT integration and accelerate intelligent manufacturing. Managed by the IEEE 802.1 standards committee, TSN sets out to solve the network compatibility problem, allowing deterministic communication over standard Ethernet networks. It will also enable convergence of IT and OT by making it possible to manage non-time-critical data and time-critical operational data on the same network without compromising quality of service.

5G Integration: High Speed and Low Latency for AIoT Applications

5G technology enhances capabilities including data transfer rates, capacity, device latency and energy consumption. Advantech's latest edge computers support the AIW optional thermal kit, providing massive bandwidth catering to data-intensive applications such as Smart Cities and Industry 4.0. Compared to 4G peak speed of 1 Gbps, 5G can provide 10x faster throughput, up to 10 Gbps while lag time will drop to <1 ms compared to 4G lag time 10~20 ms. 5G can connect up to 1M devices per square km, increased 100x over 4G capacity.

BIOS Features for Application

BIOS Top Swap Recovery Technology

Updating BIOS is critical as newer BIOS versions can identify new hardware, provide new features, fix problems and most importantly of all, bring enhanced security. Many users are concerned about system boot failure after a faulty BIOS update, which could lead to higher costs and time spent in system recovery. Advantech BIOS Top Swap Recovery technology aims to solve for such unexpected situations within the BIOS update process. With this technology, users can still boot normally the next time they boot up and ensure the integrity of the data in the SEC and PEI stages. Therefore, a CPU can correctly execute code inside the BIOS when booting, lowering the risk of a faulty BIOS update.

BIOS Standby Power Saving Technology

To fulfill use cases for different applications and architectures, customers are with various power setting for their linked devices. Advantech BIOS provides a flexibility for customer to set up USB power while Standby status, it's available to control all the USB ports with or without power providing under S4/S5 modes. It makes the control system getting smarter to support different devices having each own power saving mode by BIOS selection.

Product Lifecycle

ARK Series Product Life Cycle Information Update

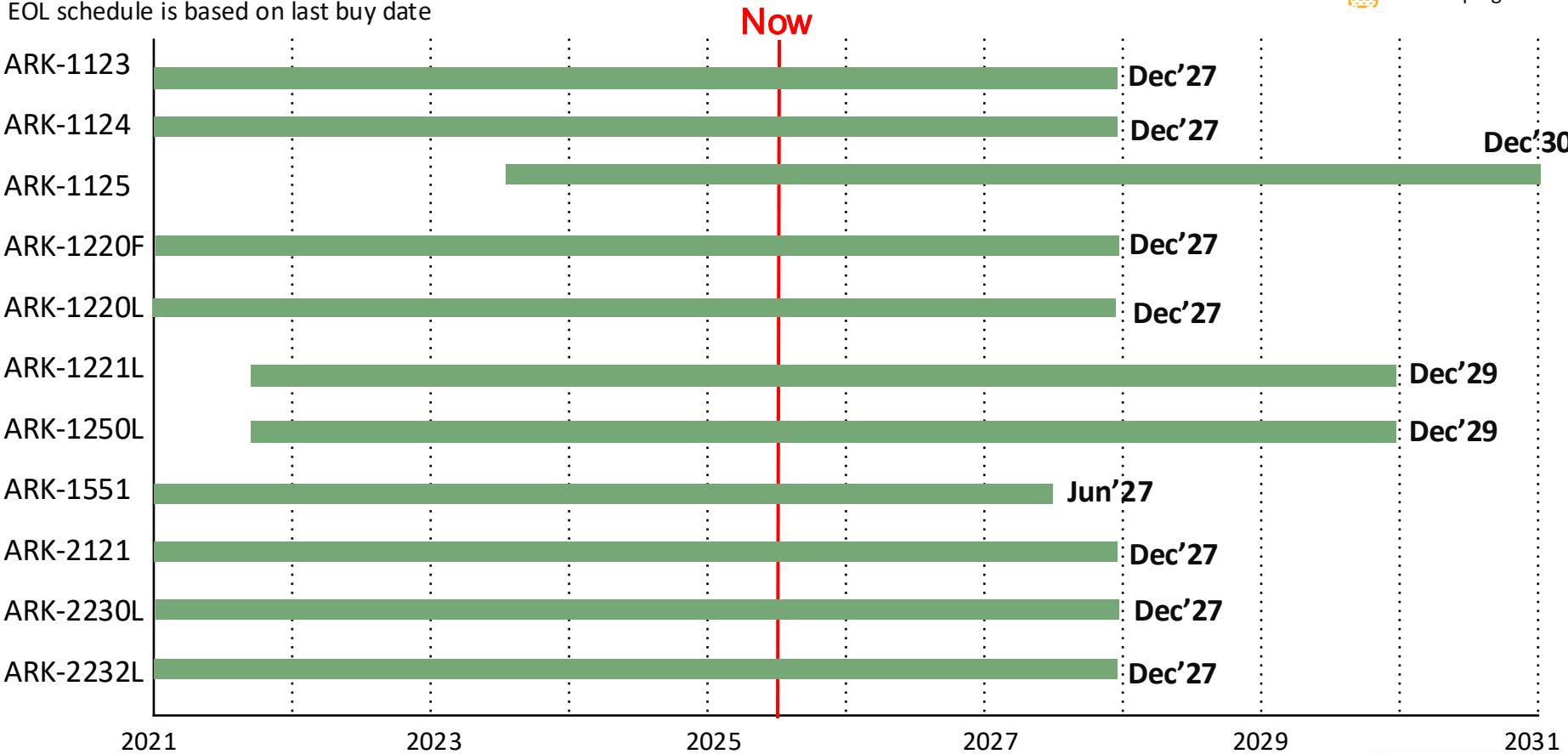
Model	Platform	Old Life Cycle Support	Update Life Cycle Support
ARK-1123 series	Bay Trail	Dec, 2026	Dec, 2027
ARK-1124 series	Apollo Lake	Dec, 2026	Dec, 2027
ARK-1220 series	Apollo Lake	Dec, 2026	Dec, 2027
ARK-1551 series	Haswell	Jun, 2026	Jun, 2027
ARK-2121 series	Bay Trail	Dec, 2026	Dec, 2027
ARK-2230 series	Bay Trail	Dec, 2026	Dec, 2027
ARK-2232 series	Apollo Lake	Dec, 2026	Dec, 2027
ARK-2250 series	Skylake	Dec, 2026	Dec, 2027
ARK-3530 series	Skylake	Dec, 2026	Dec, 2027
ARK-3531 series	KabyLake	Dec, 2026	Dec, 2028
ARK-6322 series	Bay Trail	Dec, 2026	Dec, 2027

Jan. 20, 2025 updated

ARK Series Product Life Cycle – 1

EOL schedule is based on last buy date

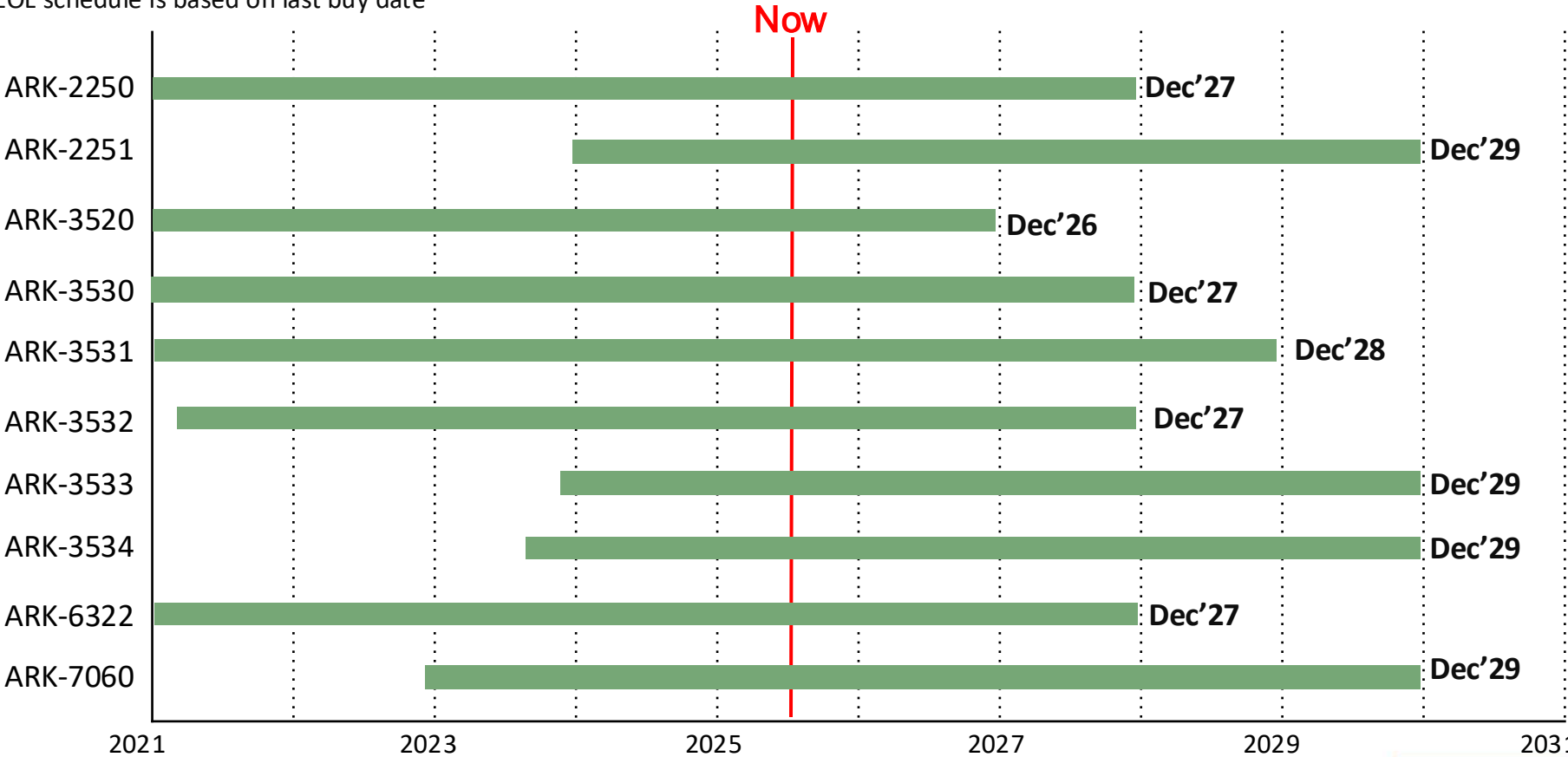
MP Life Cycle
Developing



ARK Series Product Life Cycle – 2

EOL schedule is based on last buy date

MP Life Cycle
Developing



*Go Together,
We Go Far and Grow Big*



EBC Product Naming Rule

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	R	K	-	1	1	0	0	L	-	0	0	0	A	1

Product Line

Category

Serial no.

Type

CPU code & project

Version

ARK:

11: Ultra Small series
12: DIN mount series
15: Silm Series
21: rugged multi-IO series
22: Compact modular series
35: Performance Series
70: Extreme Workstation Series
71: Extreme Edge Server Series

0~9

F: Full function
L: Lite version

000: Socket type
S00: (SA/SK/SU): 1.0GHz
S60: (SG/SQ): 1.6GHz
U00: (UA/UK/UU): 2.0GHz
U60: (UG/UQ): 2.6GHz
T00: (TA/TK/TU): 3.0GHz
T60: (TG/TQ): 3.6GHz
EP1 & EP2: AIW ePaper