



Enabling an Intelligent Planet

Product Catalog 2020-2021

Embedded IoT Solutions

■ About Embedded IoT

■ Embedded Design-in Services

■ Integrated IoT Solutions

WISE-PaaS/DeviceOn

Edge AI Accelerators & Inference Systems

Edge Intelligence and Data Service Servers

Wireless IoT Sensor Nodes and Gateways

Wireless ePaper Display Solutions

Microsoft IoT Services

Security Software Application

Embedded BIOS, OS and APIs

■ Embedded Board Solutions

Computer On Modules

Embedded Boards & Modular Solutions

Industrial Motherboards

Arm-Based Computing Solutions

■ Embedded Systems

IoT Gateways

Embedded PCs

Fanless Embedded Computers

■ Vertical Focused Solutions

Digital Signage Solutions

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Gaming Computing Platforms

■ Industrial Peripherals

Industrial Display Systems

Embedded Wireless Modules & Design-In Services

Industrial Flash and Memory Solutions

■ Design & Manufacturing Services

Design & Manufacturing Services

Medical Equipment Builder Solutions

Machine Vision & Wireless Connectivity DMS Services

Automation & Transportation DMS

Panel Computing & Tablet DMS

Applied Computing & Arm DMS

ADVANTECH

Enabling an Intelligent Planet

www.advantech.com

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About Embedded IoT

Leading the Next Wave of Embedded & IoT Innovations

As a global leader in the embedded computing market, Advantech's Embedded-IoT Group offers a wide range of embedded boards, intelligent systems, industrial peripherals, and design-in services. We provide an impressive array of streamlined services: from R&D and manufacturing, to global support and customer service. Addressing the market for IoT applications, the Embedded-IoT Group offers integrated IoT solutions, covering edge computing and cloud capabilities. These include the M2.COM wireless sensor node, IoT Gateways, Edge Intelligence Servers (EIS), the WISE-PaaS/DeviceOn IoT device operation management software, and third party cloud services to further accelerate IoT development and implementation.



Edge AI, Wireless and IoT Solutions

Advantech develops a series of edge AI and IoT solutions from edge AI modules, inference systems, wireless modules, wireless sensor nodes, edge computing and intelligence server, wireless ePaper displays to vertical ready solution packages to further accelerate AIoT development and implementation.

Embedded Boards

We offer a full spectrum of embedded boards in multiple form factors, ranging from computer-on-module and multi-I/O extension boards and embedded single board computers to industrial motherboards, and continuously developing innovative form factors to meet customers' changing needs.

Embedded and Vertical Focused Systems

Advantech offers all-in-one fanless embedded systems, easy-to-configure embedded PCs, and vertical –focused solutions with pre-integrated software services for digital signage, in-vehicle, railway, and gaming applications. This allows customers to not only rapidly implement various applications but also to maximize their benefits.

Industrial Displays and Modules

Advantech provides not only a wide range of industrial displays from LCD displays, industrial monitors, touch screen panels, outdoor displays and digital signage displays, but also industrial storage modules, memory modules and embedded I/O modules. These peripherals are and are fully compatible with Advantech embedded boards and systems for quick system integration.

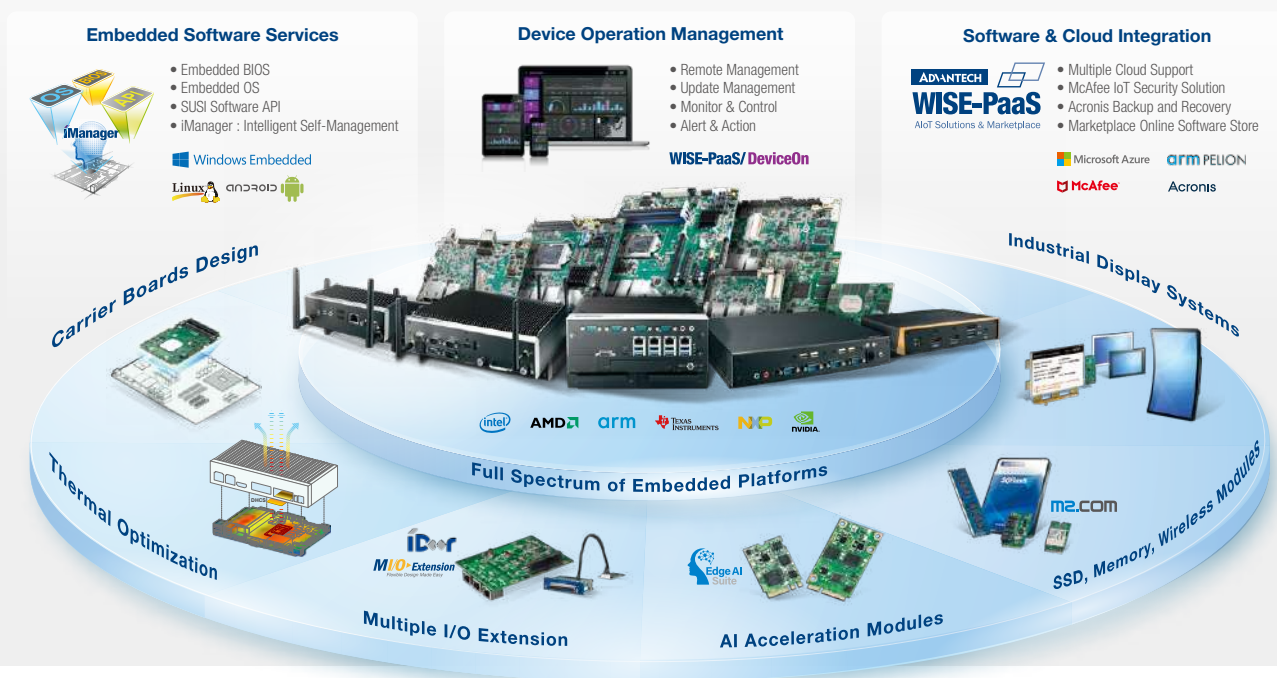
Embedded Software Service and Distribution

Advantech has a dedicated global embedded software team to provide a range of services from BIOS, OS, to software APIs and utilities. And also software distribution solutions, including Microsoft Azure through the Cloud Solution Provider program, Microsoft Windows Embedded OS, McAfee embedded security and Acronis backup and recovery software.

Embedded IoT Design-in Services

Worldwide Leadership in Embedded Design and Services

Advantech offers a one-stop service model to integrate embedded boards and systems, software, displays, and peripherals with customer-centric design-in services for a variety of industries. To address the market for IoT applications, all embedded solutions are preloaded with WISE-PaaS/DeviceOn IoT device operations and management software for users who can easily utilize onboard devices, efficiently monitor device health status, and securely send software and firmware updates over-the-air (OTA) on-site and remotely at scale. Our streamlined design-in services bring benefits which can shorten design and integration cycles, minimizing uncertainty and risk.



Leading Embedded Technologies

As a pioneer and leader in the embedded market, Advantech continuously researches and develops value-added embedded software services, leading embedded technologies, and innovative form factors.

Full Spectrum of Embedded Platforms

Advantech allies with leading industry partners - Intel, Microsoft, Arm, AMD, NXP, TI, etc. - to provide up-to-date technologies and comprehensive product offerings.

Multiple Peripheral Modules Integration Services

Advantech provides full range of modules for design-in services, including I/O extension, AI acceleration modules, SSD, memory and wireless modules selections. With multiple peripheral modules integration services, customers can rapidly implement diverse.

Power Up IoT Devices with 24/7 Operations Management

As industrial IoT applications have rapidly increased the number of connected devices currently deployed and managed across different locations, it is essential to effectively manage, monitor, and control thousands of connected devices while ensuring uninterrupted service. Advantech embedded platforms are preloaded with WISE-PaaS/DeviceOn to ensure 24/7 operations management.

Dedicated Regional Embedded Service Teams

To meet all embedded application requirements, Advantech employs regionally-based service teams capable of providing dedicated expertise, design-in services, and customer support.

WISE-PaaS/DeviceOn

Power Up IoT Devices with 24/7 Operation Management

IoT deployment and management involves hundreds of thousands of devices spread over multiple sites. It is essential to monitor, track, and manage connected industrial IoT devices. WISE-PaaS/DeviceOn easy-to-use interface makes it easy to onboard, visualize, operate, and manage your industrial IoT devices at a scale.



WISE-PaaS/DeviceOn



✓ Over-the-Air Software Updates

✓ Automated Device Connection

✓ Remote Device Monitoring and Control

Remote Monitoring & Control



Embedded Boards

Over-the-Air Software Update



Embedded PCs

Data Collection & Visualization



Embedded Computers

Automated Alert Notification



Wireless IoT Gateways

WISE-PaaS/DeviceOn Software



WISE-Agent

- Open and standard framework
- Default plugin offering for standard protocols
- Software SDK for legacy support



WISE-PaaS/DeviceOn

- Remote IoT devices operation management
- Automated bringing IoT devices online and control
- OTA software/firmware update at a scale



WISE-PaaS/OTA

- Centralized remote application and firmware updates
- Download and deploy scheduling for planned upgrades
- Support rollbacks



WISE-PaaS/Security

- Centralized security management
- Flexible security modules
- Threat prevention on potential malware in real-time

WISE-PaaS Application and Cloud Software



WebAccess/SCADA

- Web-based configuration and free management for web clients
- Cross-browser dashboard with 40 built-in widgets
- Supports ample protocols and drivers



WebAccess/HMI

- Programmable logic controller (PLC) driver support
- Easily integrate protocols
- Friendly development interface



WISE-PaaS/VideoService

- Supports standard ONVIF IP cameras
- Provides Dash, HLS and RTMP streaming protocol
- Offers RESTful APIs for web/mobile application integration



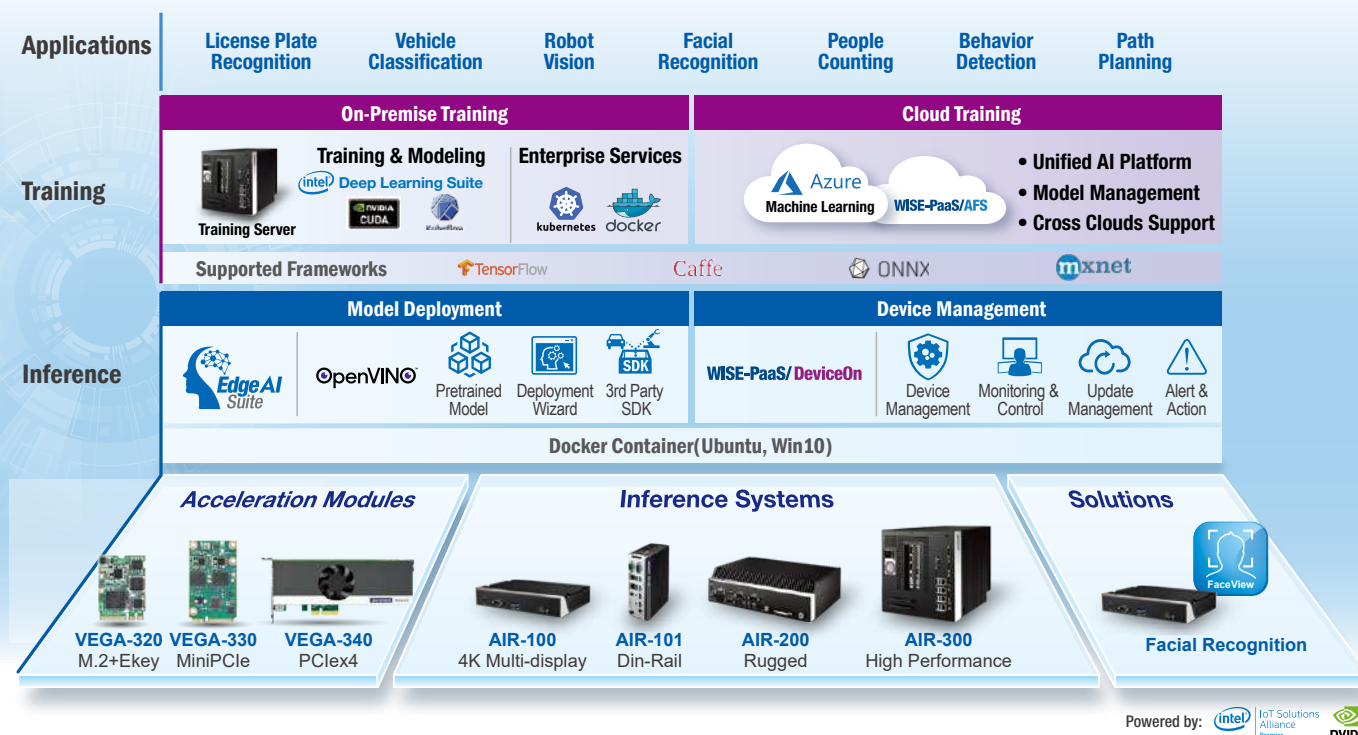
WISE-PaaS/EnSaaS

- Connect, monitor, and manage millions of IoT assets
- Managed SQL, NoSQL, and time-series databases
- Visualization dashboard for deriving actionable insights

Edge AI Accelerators & Inference Systems

Empowering AI From Training to Inference

To help customers jumpstart their AI deployment and realize AI's full potential, Advantech has been developing a full spectrum of hardware and software integrated products to empower AI from cloud-to-edge. Our solutions combine the hardware AI engine, inference computing platform, and AI featured software with industrial reliability. Advantech Edge AI solutions enable deep learning across different industries such as drones, AGV(automated guided vehicle), retail, medical imaging, traffic monitoring and more.

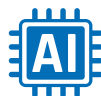


Benefit



Complete Solutions

Ranges from acceleration modules and inference systems to solution ready packages



GUI-based AI Toolkit

Edge AI Suite helps with features and power across various neural networks based on OpenVINO toolkit



IoT Management

With IoT device operation management built-in, our solutions help easily manage connected devices

Comprehensive Offerings



Acceleration Modules

VEGA-300 Series

Advantech VEGA-300 AI modules provide low power plug-in modules in different form factors including m.2, miniPCIe, and PClex4.



Inference Systems

AIR-100/200/300 Series

Advantech AIR inference systems provide full-range solutions from low power to high performance server grade.



Solution Ready Package

Facial Recognition Solutions

Our solution provides fast, high precision & scalable face recognition in real time for customer management, watchlist alerts and more.

Edge Intelligence and Data Service Servers

Simplify IoT Deployment from Edge to Cloud

Advantech edge intelligence servers accelerate IoT implementation by providing integrated solutions that include edge computers, WISE-PaaS/DeviceOn IoT device operation management software, IoT development tools, and pre-configured cloud services. Furthermore, Advantech provides data service servers as scalable data management platforms for private cloud solutions. They are all-in-one platforms with an open standard structure and have Kubernetes built-in, platform management software, and self-health management. Our servers facilitate IoT connectivity, light edge analytics and cloud integration, thus simplifying IoT application deployment, visualization, and predictive maintenance for IoT applications.



WISE-PaaS/ DeviceOn

IoT Device Operation Management

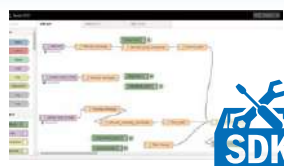


Dashboard and Development Tools

For Edge Intelligence Server



WISE-PaaS/DeviceOn



Device Operation Management

- Centralized IoT device HW & SW status management
- Built-in 15+ real-time monitoring widgets
- Up to 1000 device connections

IoT Development Tools

- Node-RED data flow logic designer
- Dashboard builder
- Protocol plug-in SDK & configuration tools

For Data Service Server



kubernetes



Data & System Management

- Kubernetes resource monitor
- Application status monitor
- Database I/O throughput monitor

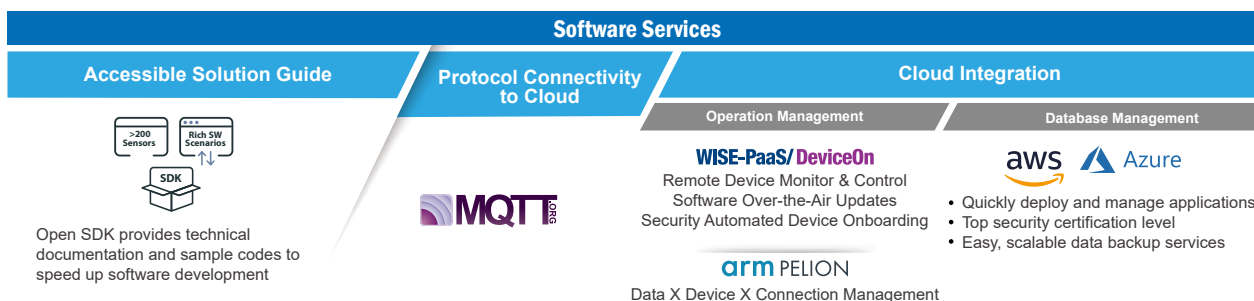
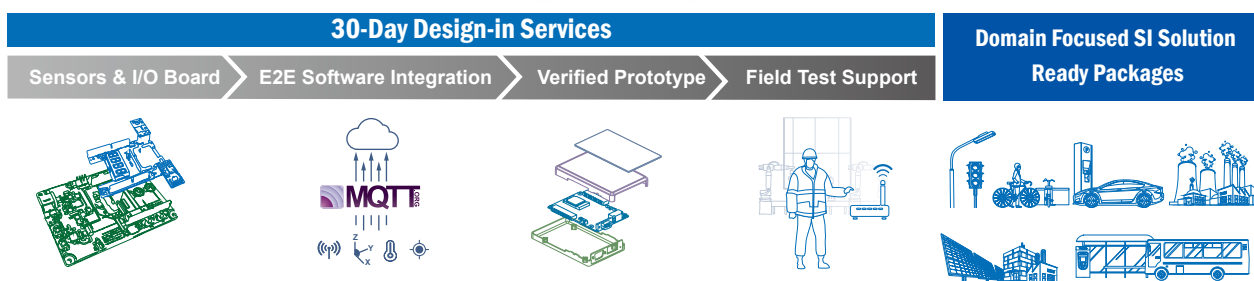
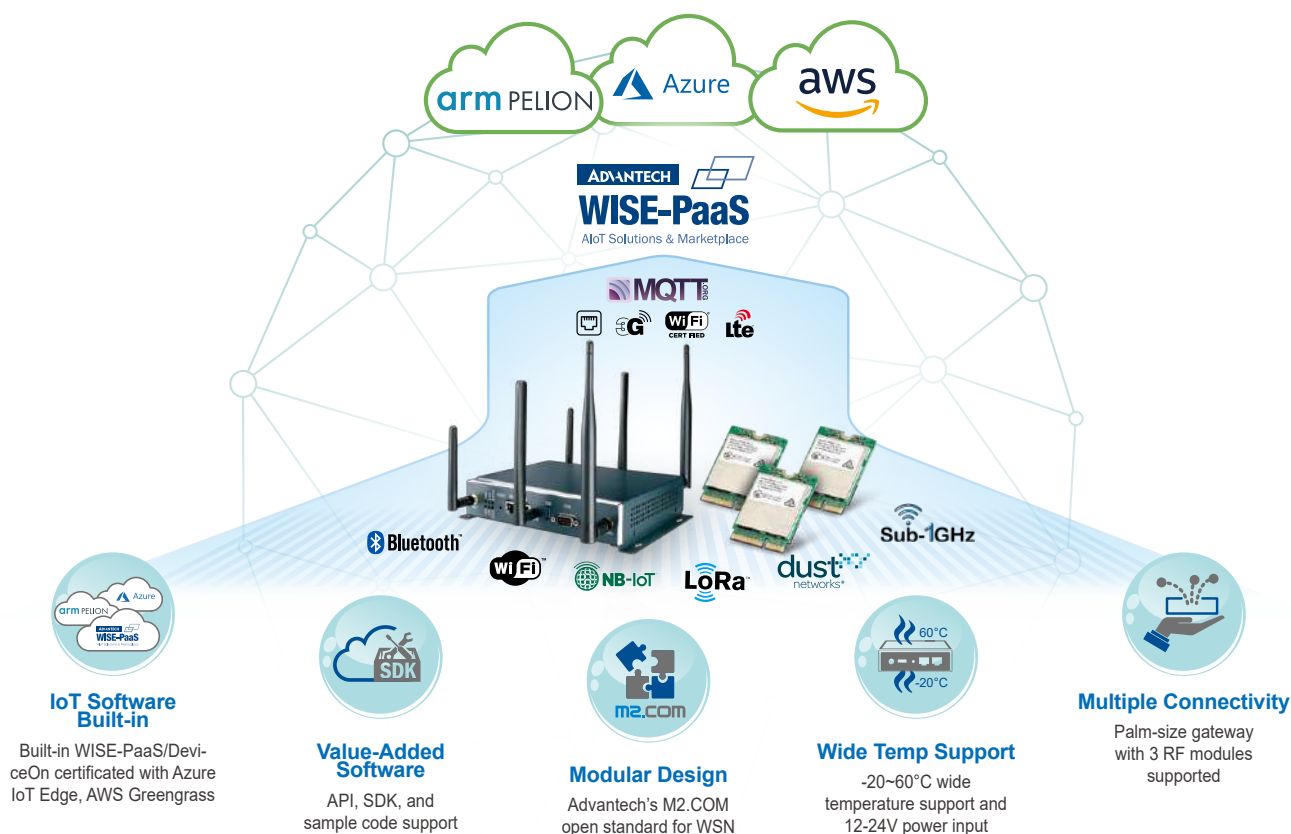
Self-health Management

- Condition monitor
- Load balance
- Events/alerts

Wireless IoT Sensor Nodes and Gateways

Accelerate Integration from Sensors to the Cloud

Advantech offers a comprehensive range of wireless IoT solutions powered by Arm core technology. Featuring low-power consumption and a selection of wireless Arm® Pelion™ cloud service technologies, Advantech's sensor nodes, gateways, and cloud services can help you quickly and easily build wireless IoT device-to-cloud network connections and start application for running business.



Wireless ePaper Display Solutions

Enable Battery-Powered IoT Display Applications

Advantech provides hardware and software integrated wireless ePaper display solutions: wireless ePaper modules, gateways, server and ePaper Manager CMS software to accelerate implementation in a wide range of applications such as shelf labelling, digital signages in smart warehouses, factories, and public spaces. The ePaper Manager software package enables easy management over the whole system locally or remotely over the Internet using the MQTT protocol. System integrators and developers can focus on their own application development and use their applications to control EPD by sending RESTful API to ePaper Manager.



Product features



Ultra-Low Power

Efficient power-saving design



Fast Transmission

Update 10,000 ePaper devices in one hour



2-Way Communication

End devices can report data accuracy, battery levels, and abnormal status



Centralized ePaper Manager

Visualized user interface and simple RESTful API for the integration with existing vertical applications



OTA Upgrade

Regular system patches and updates



AES-128 Security

AES-128 encryption and data compression



Device Association

Easy association between ePaper devices and end-device applications



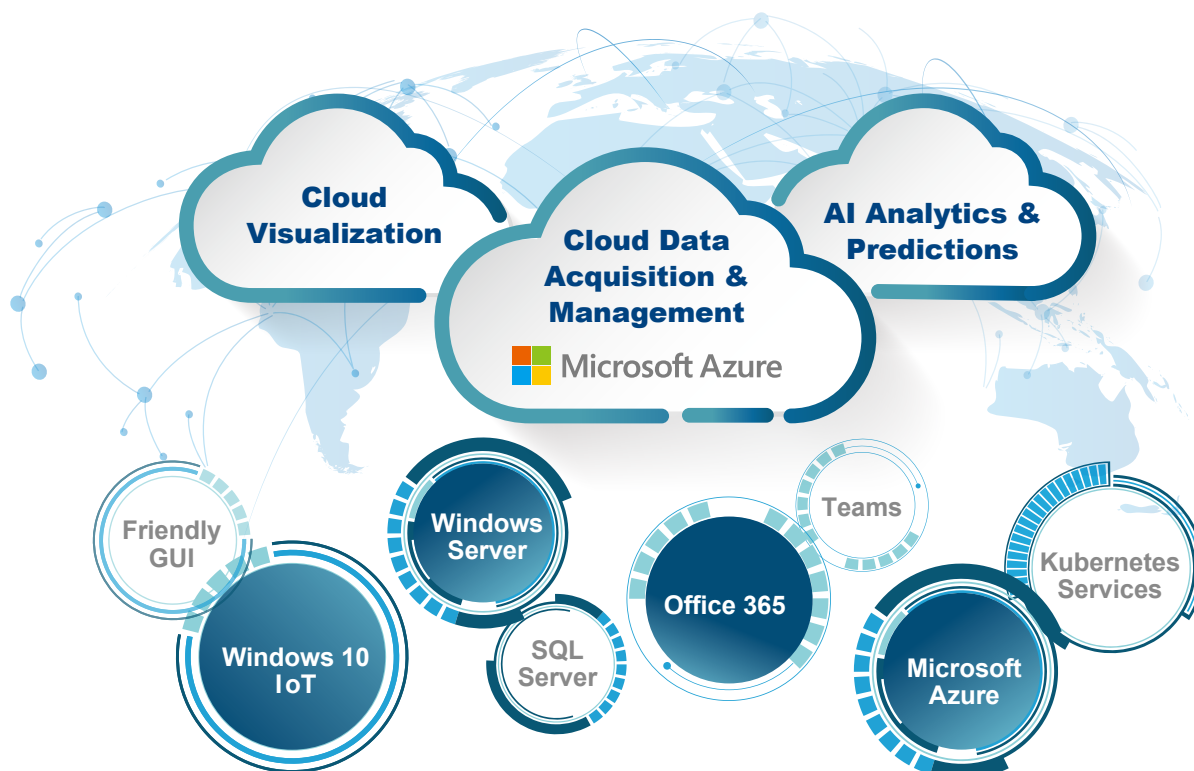
EPD Device Auto-Discover Network

Self-organization network groups with self-reported status

Microsoft IoT Services

Global Embedded License Distributor and Cloud Solution Provider

As a strategic industrial partner of Microsoft, Advantech seamlessly integrates Microsoft's direct support to provide our partners headache-free services. Our industrial partners will get know-your-need software and cloud solutions from Advantech to meet all expectations. Let Advantech know your requirements, we'll always find a way to work out a solution for you.



Microsoft Azure Cloud Offerings

Advantech Azure Solution

- Perfect integration
- Azure and Advantech hardware
- Industrial domain know-how solutions

Microsoft Azure

- 100+ cloud services
- Consistent hybrid cloud
- Powerful data & AI services for your intelligent apps

Office 365

- Full access anytime and anywhere
- Powerful data & AI services for your intelligent apps
- Automatic data syncing

Microsoft Windows 10 IoT& Server

Windows 10 IoT Core

- Fits the IoT gateway
- Universal apps/ driver support
- stable and secure

Windows 10 IoT Enterprise

- Build for retail, automation and medical applications
- Advanced lockdown capabilities
- Designed for Microsoft Azure IoT services

Windows Server 2019

- Datacenter extension on Azure
- Easily build diversified apps

SQL 2016/2017(Linux)

- High availability
- Disaster recovery
- In-memory performance

Security Software Application

Comprehensive Threat Protection and Backup Recovery Solutions

To ensure customer security, Advantech provides industrial-grade protection with our software utilities. Integrating world class software like McAfee™ and Acronis, our utilities provide a protective shield against disruptive attacks on Advantech boards, box PCs, and SSD (SQFlash). Customers may choose different McAfee and Acronis solution packages by contacting Advantech.



Product Offerings

Acronis McAfee

On-Premises Security

Acronis Backup & Recovery

- Acronis True Image
- Acronis True Image HD Edition
- Acronis True Image Personal Edition
- Acronis True Image Data Protection
- Acronis True Image OEM for Windows Server

McAfee Device Security

- McAfee Application Control
- McAfee Embedded Control
- McAfee Integrity Control
- McAfee Endpoint Security

Cloud Data Security

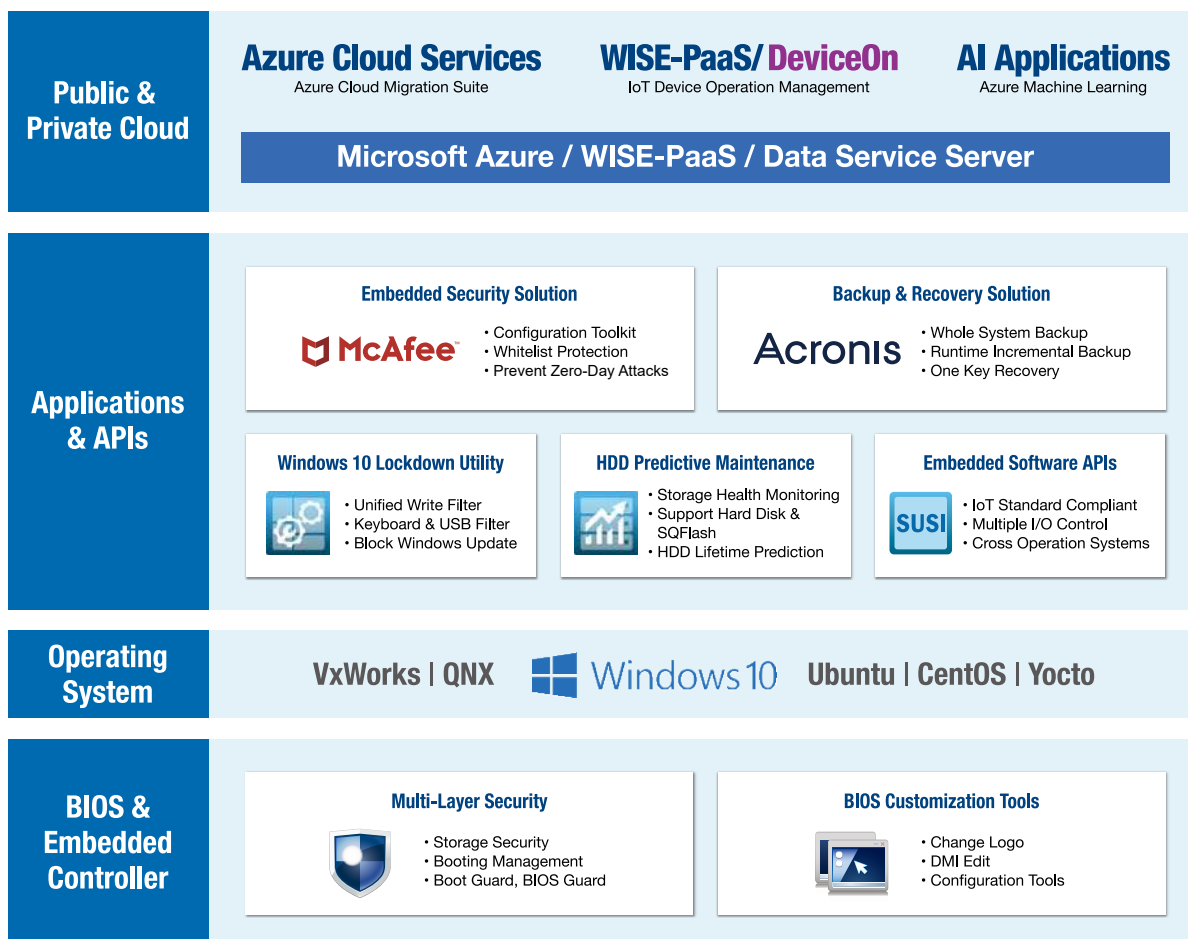
McAfee & Acronis on Azure

- McAfee Cloud Workload Security
- McAfee Virtual Network Security Platform
- Acronis Cyber Backup
- Acronis Cyber Cloud
- Acronis Backup Cloud

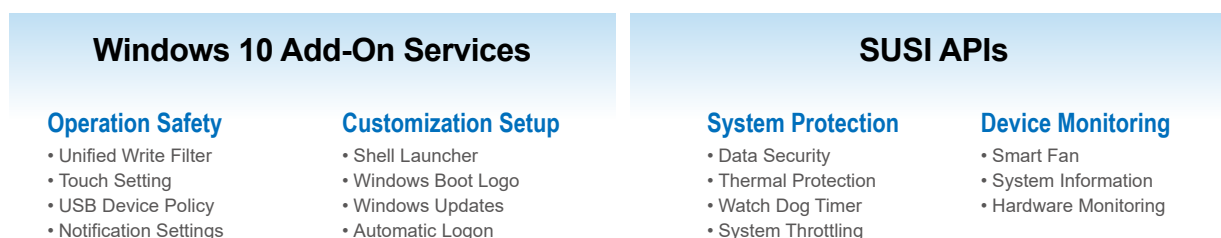
Embedded BIOS, OS and APIs

Software Services from On-Premises to Cloud

Our dedicated global embedded software team is committed to providing a range of services from embedded BIOS and OS to software APIs and utilities. By leveraging our seamless hardware/ software integration services, embedded developers can lower their design effort and project complexity while accelerating product development.



Service Highlights



Computer On Modules

Expert-Integrated Design-In Service for Operational Efficiency

Computer On Module is a highly integrated board with CPU, chipset, memory, and peripherals designed into a module. COM requires a carrier board to power up and brings out expansion interfaces and I/O for use. Since the COM architecture provides various standard specifications in different form factors and pin-out types, it not only gives OEM customers flexibility to choose a suitable solution for their applications but also saves development time.

Advantech's COM series includes the COM-HPC, COM-Express, SMARC, ETX, and Qseven. With FAE in each main country, Advantech also offers professional design-in services to help customers reduce time to market by less efforts.



Medical Cooling Solutions



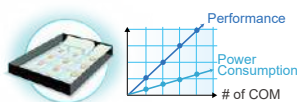
- Slim & silent cooling technology
- Optimized thermal efficiency
- Excellent reliability

Automation Value-added Software



- Remote device monitoring & management
- Integrated wireless connectivity
- Fast boot in 3 seconds

Networking Extreme Performance



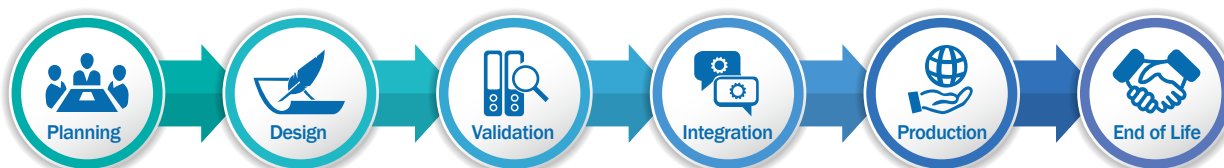
- Server grade 16-core performance
- 128 GB memory capacity
- 10 GB Ethernet (copper/fiber)

Defense Trusted & Robust



- ECC memory
- TPM 2.0 built-in
- Conformal coating
- Anti-vibration
- 100 % -40~85oC screening

COM Design-in Service for Your New Development Projects



COM Express
Basic



COM Express
Compact



COM Express
Mini



Qseven



SMARC

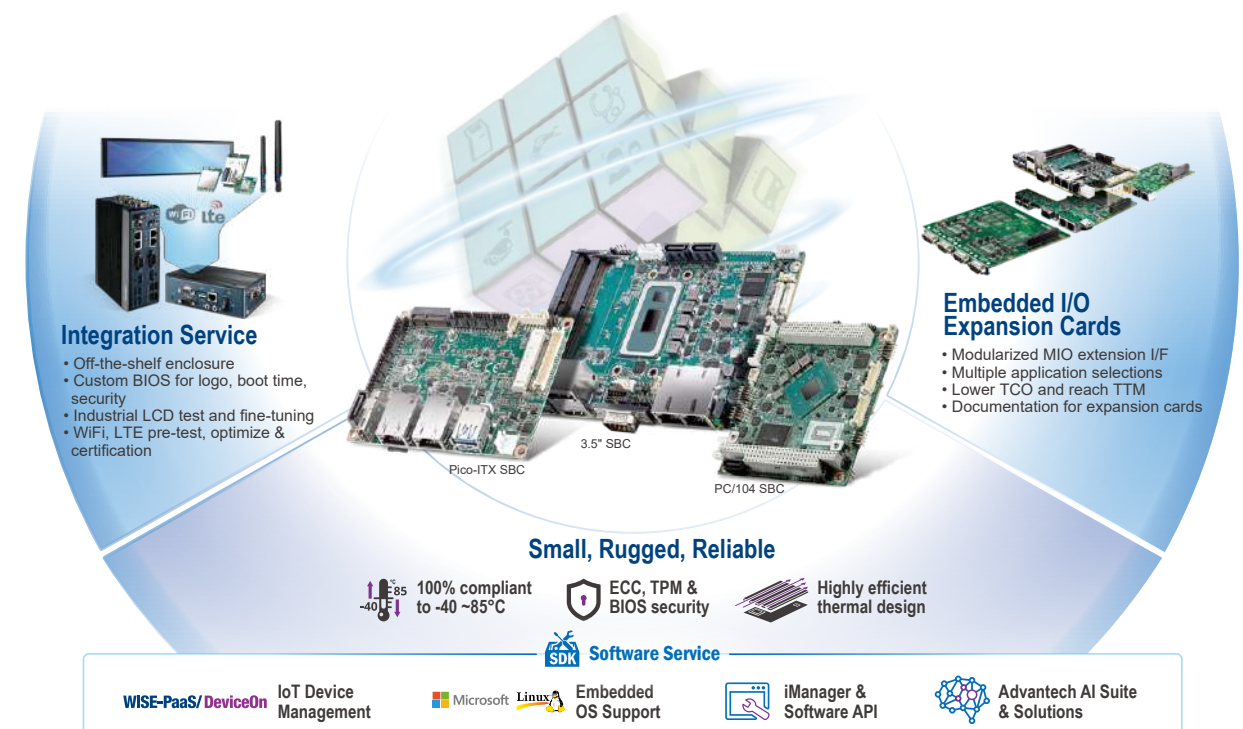








Development Board

Embedded Boards & Modular Solutions

Building Blocks to Accelerate AIOT Applications

Embedded Boards & Modular Solutions include a full selection of small, rugged, reliable computing platforms from 2.5" Pico-ITX, 3.5" SBC, PC/104, to 5.25" EBX boards, apart from a variety of MIOe I/O Expansion Cards that are designed to accelerate domain-specific development. For customers keen to win in AIoT, Embedded Boards & Modular Solutions also provides seamless integration with off-the-shelf enclosure, peripherals, embedded OS and WISE-PaaS/DeviceOn- IoT device operations management software.

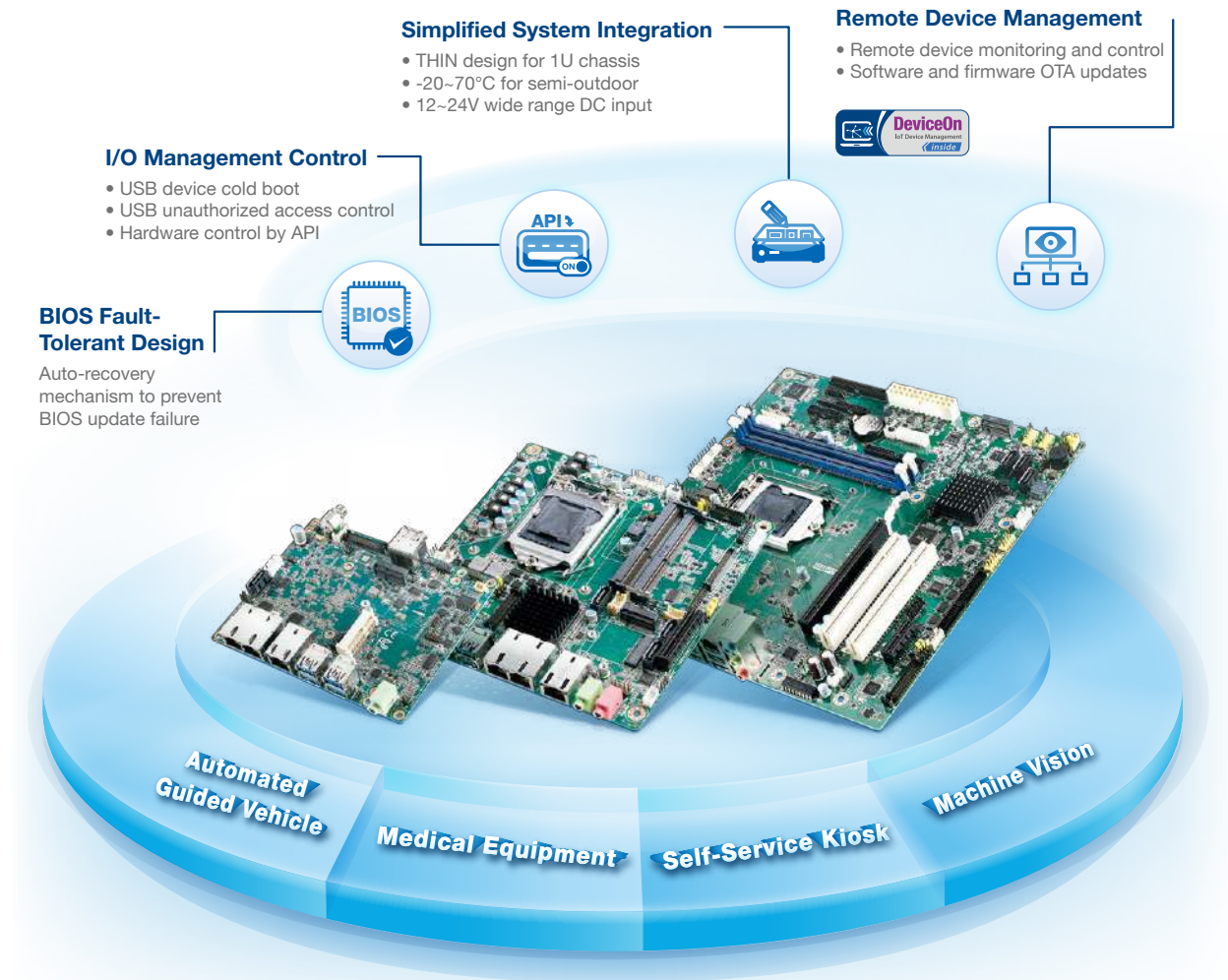


Rugged	Machine Vision	High Performance	Automation
 <p>Pico-ITX SBC MIO-2361</p> <ul style="list-style-type: none"> Intel® E3900/N4200 series Onboard LPDDR4 & eMMC Dual GbE, USB3.0, TPM M.2 E-key, F/S mSATA DC-in 12/24V, -40~85°C 	 <p>3.5" SBC MIO-5373</p> <ul style="list-style-type: none"> 8th Gen. Intel® Core SoC 4C/2C DDR4-2400 up to 32GB LVDS/eDP, HDMI, DP 2 GbE, 4 USB3.1, NVMe, TPM DC-in 12~24V, -40~85°C 	 <p>3.5" SBC MIO-5393</p> <ul style="list-style-type: none"> 9th/8th Intel® Xeon/Core 6C/4C DDR4-2666 up to 64GB LVDS/eDP, HDMI, DP 2 GbE, 4 USB3.1, NVMe, TPM DC-in 12V, -40~85°C 	 <p>Embedded PC EPC-S201</p> <ul style="list-style-type: none"> Intel® Celeron N3350 GbE, 2 USB3.0, VGA 2 RS/232/422/485, 8 DIO F/S mPCIe, H/S mSATA DC-in 12V, 0~50°C, fanless
AIOT		MIOe Extension Module	
 <p>Embedded PC EPC-C301</p> <ul style="list-style-type: none"> 8th Gen. Intel® Core i7/i5 HDMI+DP, 4 GbE, 8 USB 2 CANBus, 4 UART, 8 DIO M.2 E/B/M-key, F/S mPCIe DC-in 12~24V, -20~60°C fanless 		 <p>MIOe I/O Module MIOe-260</p> <ul style="list-style-type: none"> Dual GbE, 8 UARTs, 4 USB2.0 2 CANBus with Isolation M.2 B-key 3042, F/S mPCIe Optional DP thru SBC eDP Line-out with Amplifier 2.2W 	

Industrial Motherboards

Pioneering Design with the Latest Platforms for Accelerated Time-to-Market

Advantech offers a full range of industrial motherboards with the latest platforms and industrial know-how, aiming to provide cutting-edge technology that stays ahead of the competition.



Star Products



AIMB-U233

- Intel® 8th Gen Core™ U series
- 2 USB3.1 Gen2/ 2 HDMI
- M.2 NVMe/ M.2 E key/ M.2 B Key



AIMB-233

- Intel® 8th Gen Core™ U series
- 4 USB3.1 Gen2/ Type C Alt.
- 12~24V wide range DC input



AIMB-218

- New generation of Intel® Atom™
- 2 HDMI/ UFS
- 12~24V wide range DC input



AIMB-286

- Intel® 9th Gen Desktop Core™ i series
- 3 GbE LAN/ 6 COM
- M.2 B key/ M.2 E key



AIMB-506

- Intel® 9th Gen Desktop Core™ i series
- 8 USB3.0/ 12 USB2.0/ 14 COM
- PCIe16/ PCIe1x/ 2 PCI/ M.2 B key

Arm-Based Computing Solutions

Accelerating IoT Deployment by Open Platform with Ecosystem Partnerships

Advantech Arm computing solution provides an Open and Unified Development Platform to minimize the development effort and increase the resource efficiency when enable an Arm based embedded application. In Arm-based product offerings, we are dedicated to developing various Arm SoC-based products by standard form factor, including Qseven, SMARC, RTX, 2.5" and 3.5" SBC; and through AIM-Linux / AIM-Android to provide an agile software development package, moreover, by leveraging the Embedded Linux and Android Alliance (ELAA) eco-system partnership, various of embedded vertical software features such as security, networking management and video acceleration etc. are pre-integrated with Advantech Arm-based Unified Development Platform by ELAA software partner worldwide and ready to serve your application in a timely and cost-efficient way.



Features

Reliable Hardware Solutions

- Standardized form factor
- Carrier board reference
- Design consulting service

Comprehensive Software Services

- Multi OS & BSP longevity support
- Unified embedded S/W
- Diverse App & SDK Add-Ons

Vertical Deployment with ELAA

- Local in-time support
- Domain focused S/W offering
- Long-term partnership

Star Products

NXP i.MX 8 Solutions

Empower embedded applications for the next generation

- ROM-7720: i.MX 8
- ROM-5720: i.MX 8M
- ROM-5620: i.MX 8X



UIO 20/40-Express

2.5" core board with I/O expansion boards to build vertical systems quickly

- EPC-R3430: NXP i.MX6
- EPC-R3710: Rockchip RK3399



Unified Platform for Embedded Linux & Android Industrial Applications
www.elaa-platfor.org/en-us



IoT Gateways

Multi-protocol Communication Gateway with IoT Software Services

Advantech's UTX series of embedded IoT gateways are designed for end device data analysis and transmission, increasing operational efficiency by giving you the information you need to make effective decisions. This aids in deriving intelligence to drive new design innovations and makes business transformation a viable option. In addition, the UTX series supports multiple connectivity options and IoT software integration, making it ideal for IoT applications.



The Latest Offering



UTX-3117

- Intel® Atom™ E3900 series SoC
- 3 RF modules with 5 antennas
- Rich I/O & 12-24V DC input
- -20~60°C wide temperature support

IoT Software Services

- Win 10 IoT Ent OS
- Linux Ubuntu OS
- Azure IoT Edge certificated
- AWS Greengrass certificated
- WISE-PaaS DeviceOn built-in
- Alleantia ISC SW support

Embedded PCs

Fast Configuration for Your Applications

Advantech Embedded PCs (EPC) are a full range enclosures and systems designed for 2.5" and 3.5" single board computers and Mini-ITX motherboards for both x86 and Arm-based platform, featuring optimized mechanical design and flexible I/O interface options, assuring maximum flexibility for quick integration.



Configuration to Order Services

Select Model	Select Peripheral	Install Software	Ready to Ship
<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Processor <input checked="" type="checkbox"/> Expansion <input checked="" type="checkbox"/> Functional I/O <input checked="" type="checkbox"/> Thermal <input checked="" type="checkbox"/> Life Cycle 	<p>Wi-Fi 4G/LTE </p> <p>Memory Storage </p> <p>Riser Card </p>	<p>DeviceOn WISE-PaaS/DeviceOn IoT Device Operation Management</p> <p>Embedded OS Windows </p> <p>Embedded BIOS </p>	<p>System Assembly</p> <p>Function Test Burning Test</p> <p>Global Delivery</p>

Product Offerings

EPC-S Series

- Factory automation & HMI focused
- Compact design: 139x100x44mm
- Sufficient I/O, USB, COM, DIO, VGA

EPC-C Series

- Automation & medical application focused
- Compact size with integrated GbE USB CANBus
- Expansions for WiFi, LTE, NVMe, AI

EPC-R Series

- Compact and efficient Arm-based PC
- Linux/Android OS support
- Industrial peripheral pre-integration

EPC-U Series

- Small footprint fanless PC
- Sufficient connectivity
- From Intel® Atom™ to Core™ i series

EPC-T Series

- Slim 44mm with up to 65W CPU
- Plentiful I/O and expansion options
- A wide range of CPU options

EPC-P Series

- High performance CPU
- Multiple I/O and expansion options
- User-friendly mechanical design

EPC-B Series

- Machine vision industrial PC
- Up to 4 PCIe expansions
- Intel® 8th/9th Gen Core™-I Series

Fanless Embedded Computers

Simplify IoT Deployment for Smart Factories

Advantech ARK systems are rapidly configurable for industrial embedded IoT applications. Together with Advantech industrial displays, storage, and memory modules, ARK systems can automate factory production lines for intelligent robotic control, visual inspection, data visualization, and much more.



Product Offerings



IoT Solutions
Alliance
Premier



Compact Desktop PC Compatible with Edge AI Modules

ARK-3531

- Intel 8th/ 9th Gen. Desktop i3/i5/i7 35W CPU
- Dual channel DDR4 up to 32GB
- Compatible with Edge AI modules: VEGA-320/ VEGA-330



Compact Box PC with Versatile I/O

ARK-1551

- Intel 8th Gen. Mobile-U i5/i3/Celeron
- Dual channel DDR4 up to 32GB
- Support SQFlash PCIe2 NVMe storage



Industrial DIN-Rail Mounting System

ARK-1220F

- Intel Atom N4200 Quad Core SoC
- Dual display VGA and 4K HDMI
- Isolated LAN, COM, DIO with 2.5KV protection

Digital Signage Solutions

Immersive Experience and Easy Management

Digital signage has evolved into an interactive and personalized communication tool. It is now a vital link to connect advertisers with viewers for a more direct engagement and experience. Advantech's smart digital signage solution covers most business and environmental needs, from single stores to central management, commercial to industrial applications. All systems come bundled with content management, device monitoring, and content security software, and can connect with WiFi, 3G or LTE modules for a flexible range of communication possibilities.



Key Benefits



Diversified Product Offering

- Low Power to Performance
- 2 to 6 multi-displays
- Windows / Android Support



Reliable & Secured Operation

- Cableless Design
- Optimized Thermal Solution
- Proven Modular Compatibility



Flexible Customization

- Strong Technical Know-how
- Timely Delivery
- Global Support



Simplified Manageability

- Content Management
- Device Management
- AI Acceleration Toolkit

WISE-PaaS/ DeviceOn
WISE-PaaS/ SignageCMS

Entry Level

DS-100

Rockchip RK3399 ARM Dual
Cortex-A72/Quad Cortex-A53



Ultra Slim

DS-082

AMD Ryzen V1807B/V1605B/
R1606G



Multi-display

DS-580

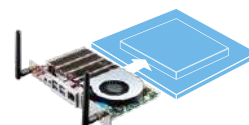
Intel Atom Processor E3950 with
Integrated NVIDIA GT 1030 Graphics



Modular Design

DS-200

8th Gen. Intel Core i3/ i5/ Celeron



Intelligent Transportation Systems

Certified Designs for In-Vehicle, Rolling Stock and Roadside

Advantech provides in-vehicle, rolling stock fanless systems with unique designs for application in the transportation industry. These products feature in-vehicle/rolling stock certifications (EMark/EN50155), high extension capability for communication interfaces, and rugged, wide operating temperature designs. With flexible and modular hardware design capability, we efficiently meet customers' function and time-to-market requirements, and enable abundant applications including fleet management, mobile surveillance, passenger information systems, traffic surveillance and management, and much more.



Rolling Stock

- Lockable I/O
- Railway certification

Roadside Surveillance

- Extreme graphics performance
- Anti-vibration & shock proof

In-Vehicle

- Diversity communications
- Vehicle certification

Star Products

Rolling Stock ARK-2250R

- EN50155, EN50121-3-2, IEC61373 certified
- Intel® Core i7-6822EQ/i5-6442EQ
- DC 24V input, DC 48/72/110V available by project
- -40~70°C operating temp.



Roadside Surveillance ARK-2250S

- Intel® Core i7-6822EQ/i5-6442EQ
- Up to 1080p 240fps video encode & decode
- Optional Camera, WLAN, WWAN
- -20~70°C operating temp.



In-Vehicle ARK-2250V

- EMark, IEC 60721-3-5 certified
- Intel® Core i7-6822EQ/i5-6442EQ
- 12/24VDC input with vehicle ignition management
- -20~70°C operating temp.



Extension Layers

AMK-R100E

- 8x GbE PoE+ (X-coded)
- 1x anti-vibration 2.5" drive bay

AMK-R104E

- 8x 10/100M PoE+ (D-coded)
- 1x anti-vibration 2.5" drive bay



AMK-R101E

- 4x GbE PoE+ (X-coded)
- 1x anti-vibration 2.5" drive bay

AMK-R105E

- 4x 10/100M PoE+ (D-coded)
- 1x anti-vibration 2.5" drive bay



AMK-R106E

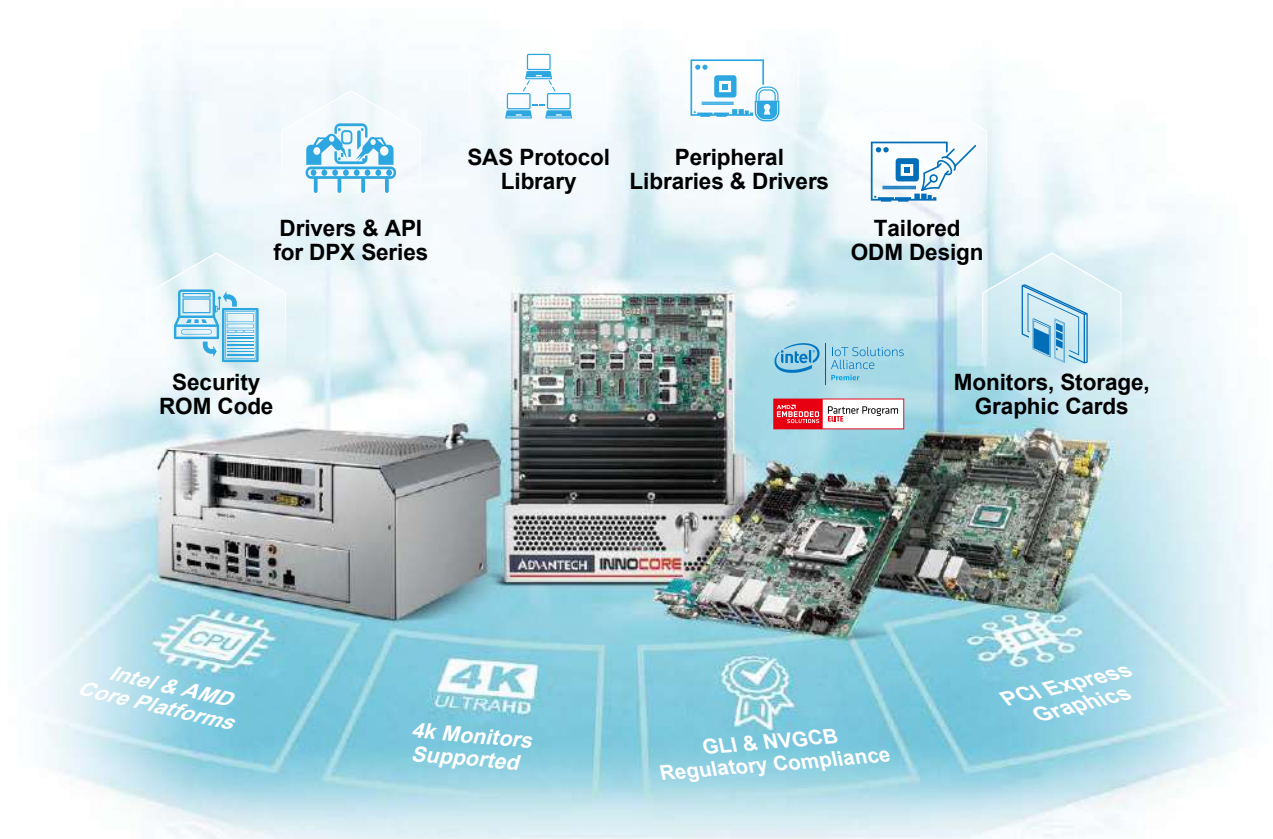
- 2x M.2 2230 E key slots
- 2x MiniPCle slots with external SIM sockets



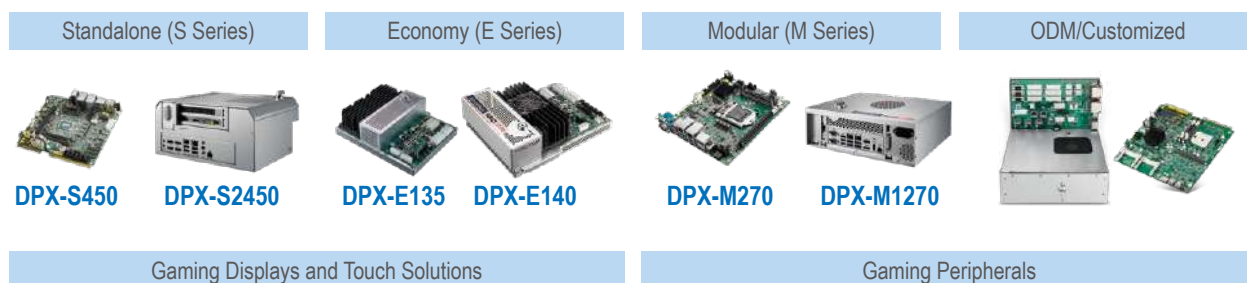
Gaming Computing Platforms

The Widest Range of Solutions for the Gaming Industry

Advantech-Innocore is dedicated to providing advanced gaming solutions for customers. We offer the widest range of industrial grade computer products designed specifically for the gaming industry. We provide our customers with excellent standard products, customized products and services, and we employ the latest up-to-date technologies for gaming solutions to meet the requirements for casino machines, AWP, VLTs, multiplayer games, arcade games, and pachislots.



DPX® Gaming Platforms & Systems



IDS-3127W

27" Open Frame

CRV-430WP/JP

43" C/.J type Curved

Graphic Cards

- GFX-NG730L16-5C1
- GFX-AR560F16-5A

Storage Modules

- SQF-S25 840
- SQF-SM8 840

Industrial Display Systems

Leading Professional Display Expert

Advantech designs, develops and manufactures display systems that meet the demands of industrial display markets in gaming, transportation, medical, and many system integration markets globally. Combining proven technologies and flexible manufacturing, Advantech creates class-leading solutions for your customers that deliver significant product differentiation and competitive advantage. Our customer-centric approach reinforces all of our activities and in an essential part of the thousands of products we ship daily.



Industrial Touch LCD Kits



IDK-1000 Series
Indoor LCD Kit
5.7"~21.5"



IDK-2000 Series
Outdoor LCD Kit
8.4"~21.5"



IDS-3100/ IDS-3200 Series
Open Frame/ Panel Mount
6.5"~27"



IDS-3300 Series
IP-65 Rated
10.4"~19"



IDP Series Series
Proflat
10.1"~32"

Digital Signage & Gaming Displays



DSD-3000/5000/7000 Series
Large Format/Stretch/SDM
32"~65"/ 28", 38"/ 55"



CRV Series(J type/C type)
Curved Display
13", 43", 55"

Embedded Wireless Modules & Design-In Services

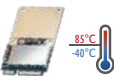

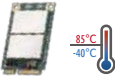





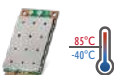



Simplifying Wireless Connectivity for IoT Platforms

To fully realize the benefits of connected platforms in the IoT era, Advantech Embedded IoT Wireless Module Solutions offers BT, Wi-Fi, GPS, 3G, 4G, NB-IoT, LPWAN modules with extend wide temperature /conform coating and wireless design-in services as a total package for embedded vertical applications. With Advantech wireless modules, system integrators, and industrial PC vendors can easily implement suitable wireless functions into their own systems or board level applications.



Wireless Design-In Services



LTE			GPS		NB-IoT
					
EWM-C148 Full size mini PCI-e LTE CAT4	EWM-C148S Solder down type LTE CAT4	EWM-C117 Half size mini PCI-e LTE CAT4	EWM-C121 Half Size Mini PCI-e Wi-Fi/Bluetooth	EWM-G109 Half size mini PCI-e GPS	EWM-NB147 Full size mini PCI-e NB-IoT CATM1
WiFi & Bluetooth					
					
EWM-W195 M.2 2230 Wi-Fi+BT	EWM-W190 Full size mini PCI-e Wi-Fi	EWM-W158 Half size mini PCI-e Wi-Fi+BT	EWM-W163 Half Size Mini PCI-e GPS	EWM-W260 M.2 2230/WiFi+ BT 5.1	EWM-W159 M.2 2230/WiFi+ BT 5.0

Industrial Flash and Memory Solutions

Extreme Performance, 360-degree Security, Ruggedized Design

As the leading industrial flash and memory solution provider, Advantech offers a comprehensive industrial grade SSD and DRAM modules with better longevity for industrial and semi-industrial application developers. All our modules are designed with tier-1 materials, high endurance capability, the most comprehensive security functions, and pass 100% factory reliability screening.

360-Degree Security

- TCG-OPAL Enabled
- Secure Erase
- 3rd Party Integration

Acronis

Ruggedized Design

- Power Failure Protection
- Thermal Solution
- Coating and Underfill

Flexible Customization

- 30-Day DTOS
- Firmware Customization
- 3-to-5 Year Longevity

[Learn More](#)



SQFlash Manager

- Status and endurance estimation
- TCG compliant drive encryption and quick erase
- Disk security management and encryption



SQRAM Manager

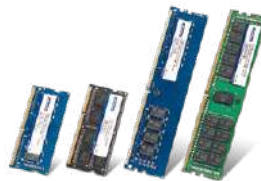
- Operating temperature monitoring
- Temperature alerts when over 65°C
- SPD information and timing table

Product Offerings



SQFlash Storage Modules

Support various interfaces such as SATA, PCIe/NVMe, and PATA/IDE with multiple form factors including 2.5" SSD, mSATA, M.2, DOM, CFast, and Half-Slim.



SQRAM Memory Modules

Offer comprehensive product line including Unbuffered DIMM, SODIMM for Industrial applications and supports DDR4, DDR3, DDR2, and DDR1.



Embedded Extension Modules

Provide standard Half/Full-size Mini PCIe modules that support a variety of I/O to embedded boards and systems.

Design & Manufacturing Services

Customize Your Vertical Applications

Advantech's Design & Manufacturing Services aims at providing tailor-made systems and boards to total solution products that meet specific application requirements. With our domain knowhow in various applications, advanced, innovative, and world-leading technologies, we provide diverse levels of customization, flexibility for manufacturing, and worldwide technical/logistics support.



Vertical- focused Solutions



IoT Appliance
& Solutions (IAS)



Medical Equipment
Builder (MEB)



Applied Computing
& ARM DMS



Panel Computing &
Tablet DMS



Automation &
Transportation DMS



Medical Equipment Builder Solutions

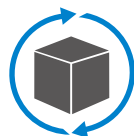
Tailored Design & Manufacturing Services for Next-Generation Medical Applications

Advantech MEB DMS works as a design partner for medical equipment customers. We provide integrated program management services, from product design, to manufacturing and maintenance, and ensure certification compliance throughout the entire product lifecycle. Advantech's collaborative working model is critical to co-creating value with our many partners. In addition, through strategic change management, Advantech ensures stable production for lengthy product lifecycles.



Collaborative Mode

- Early engagement
- Product concept development
- Advanced technology introduction
- Feasibility study



Strategic Change Management

- SMART life cycle management
- Eco partner supporting plan
- Reduce re-certification effort



ISO 13485

- ISO13485 certified team and factory
- Risk assessment
- DFMEA and PFMEA
- Custom fixture design and test flow

Offerings



High Performance Server

- Support 4pcs double deck PCIeX16 add-on cards
- Eight removable HDD



MEB-C100

Compact Ultra-silent Medical PC

- Support Intel® Xeon® CPU
- Compact size with only 30mm thick
- 35dBA@ 30oC ambient
- Support VESA mount



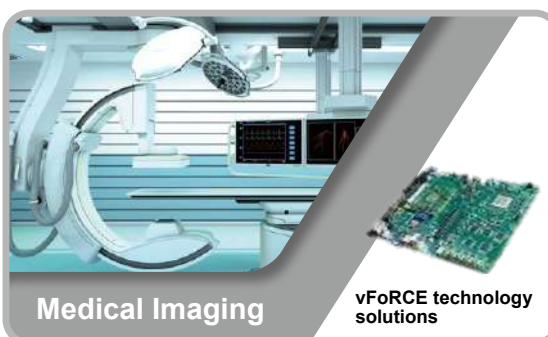
Medical LAN Card

- Compliant to EN60601-1
- Galvanic isolation of 4KV
- Dual GbE, PCIeX1

Machine Vision & Wireless Connectivity DMS Services

Accelerating AIoT Deployment with Integrated FPGA, Wireless, and Sensing

Advantech IAS DMS offer AI and IoT solutions through the integration of Computing(x86 and Arm-based), AI Image accelerating engine(Intel, Xilinx, nVidia), wireless connectivity and sensing and global RF certifications. The vFoRCE FPGA solution provides an efficient way to let FPGA designers easily access and control computer I/Os. Through IAS services you can easily deploy Video/Audio processing, machine learning, Big Data Analysis, wireless connections to Manufacturing/ Smart City/Medical Imaging/Automotive application.



AI-Accelerated Engine Integration

- FPGA: vFoRCE integration, Xilinx DEEPHI Edge AI
- Intel: Openvino, Movidius Arria10
- nVIDIA: Jetson AI Nano, Tegra X2, Xavier

Edge Computing Solutions

- x86/Arm-based entry to server-level system design
- Integrated LPWAN and WLAN solution
- Built-in IoT environment sensors

RF Design and Antenna Verification

Global RF regulation compliance services



AIoT Software Package

- Integrated WISE-PaaS and DeviceOn
- Built-in iManager and SUSI API
- Embedded BIOS, EC, OS, ARM BSP

Automation & Transportation DMS

Realize Industry 4.0 and Intelligent Transportation

Advantech Automation DMS provides easy deployment for deep learning systems on machine vision applications with modularized expandability solutions. Advantech Transportation DMS provides reliable computing solutions for intelligent rolling stock systems and station control applications.



Passenger Info. System



Robotics



Railway Transportation



Factory Automation



Driver Machine Interface (DMI) in Cockpit

- Intel® dual-core processor
- EN50155/IEC61373 compliant
- 24 ~ 110 VDC power input range
- IP65-rated front panel



Train Monitoring & Diagnosis System

- 4U rackmount Intel® processor
- GB/T 21563-2008, GB/T 17626.4/5/6-2008 compliant



Robot & AGV Controller

- Intel® quad-core processor
- 9 ~ 36 VDC power input range
- Instant power protection
- GB 17625.1-2012 compliant



Machine Vision & Data Acquisition

- Supports EtherCAT and extended I/O
- GPU module for AI applications
- Anti-sulfur resistors for harsh environments

Panel Computing & Tablet DMS

Design to Fit – We start from your ID concept

Advantech Panel Computing & Tablet DMS aims at providing industrial tablet and smart panel computer (All-in-one Touch PC). We offer a complete design process to work with our customer from ID concept all the way to production. It is beyond a board and display in a box but from a new ergonomic ID concept. With rich experience of industries, comprehensive platforms as well as mobile connectivity and power saving design know-how, our solution has successfully launched to different industries.



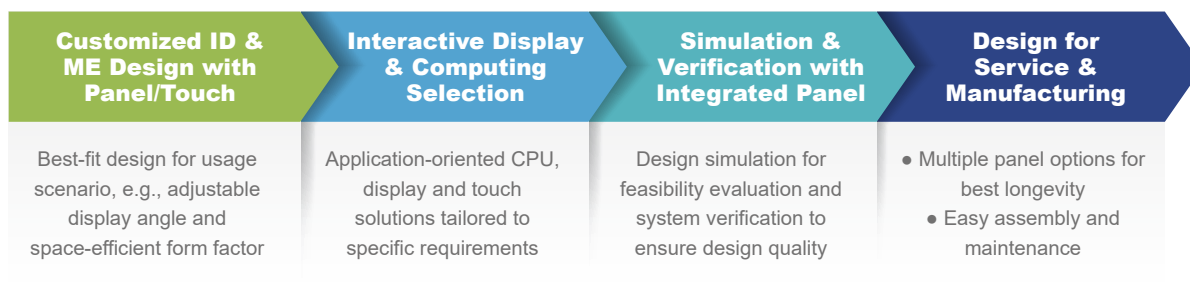
Applied Computing & Arm DMS

The Best Display IoT Solution in Medical and Arm DMS

Display plays an important role in IoT solutions which makes the whole system more efficient. Designing suitable smart display solutions is very important. The Advantech DMS team provides the best solution from the key components selection, ID and ME design, and whole system design based on customers' user scenario, environment and product quality. We always consider product and service quality with an end goal of providing the best possible display experience for our customers and ensuring all our products are ideally suited for the IoT era.



Circular Services from Concept to Implementation



Mission

Enabling an Intelligent Planet

Growth Model

Segmented Business Units
Powered by Global Trusted Brand

Focus & Goal

The Global Leader of
Embedded & Automation Solutions
for iWorld System Integrators

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Worldwide Offices

Greater China

China

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Shanghai	86-21-3632-1616
Shenzhen	86-755-8212-4222
Chengdu	86-28-8545-0198
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Taipei & IoT Campus	886-2-2792-7818
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Osaka	81-6-6267-1887
Nagoya	81-0800-500-1055

Korea

Toll Free	080-363-9494
Seoul	82-2-3663-9494

Singapore

Singapore	65-6442-1000
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Malaysia

Kuala Lumpur	60-3-7725-4188
Penang	60-4-537-9188

Thailand

Bangkok	66-02-2488306-9
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Vietnam

Hanoi	84-24-3399-1155
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Indonesia

Jakarta	62-21-751-1939
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Melbourne	61-3-9797-0100

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Düsseldorf	49-2103-97-855-0

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Paris	33-1-4119-4666
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Italy

Milan	39-02-9544-961
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London	44-0-870-493-1433

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Stockholm	46-722-293423
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Warsaw	48-22-31-51-100
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Russia

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St. Petersburg	8-800-555-81-20

Czech Republic

Ústí nad Orlicí	420-465-521-020
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ADVANTECH

Enabling an Intelligent Planet

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