

# Industrial Peripheral and Software Solutions

Expanding the Power of Business Opportunities



Industrial Flash & Memory Solutions



Wireless ePaper Solutions



Industrial Wireless Solutions



Edge Software, Distribution & Services



Industrial Display Solutions

**ADVANTECH**

*Enabling an Intelligent Planet*



# Industrial Intelligence **Powering the Future**

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**ADVANTECH**

Enabling an Intelligent Planet

Est. **1983**

Headquarters: Taipei, Taiwan

**INDUSTRIES SERVED**

Industry 4.0, Industrial IoT, Embedded Computing, Medical, Retail, Logistics



**1.8 MILLION+** sq. ft.

**MANUFACTURING PLANTS**

Linkou, Taiwan



- 9 SMT lines, 16 system lines
- Engineering sample services
- Complex product lines
- Flexible & quick production

Kunshan, China



- 12 SMT lines, 13 system lines
- Chassis design & production
- Mature product lines
- Cost-effective production

Nogata, Japan



- 4 SMT lines, 13 system lines
- Japan design center, CTOS service, logistics center, repair center

Industrial Peripheral Shipments (as of Dec. 2023)

- 10,000,000+** Industrial SSD & DRAM
- 1,300,000+** Wireless Modules
- 1,400,000** Displays
- 20,000+** Industrial ePaper installed
- 10,000,000+** Software Licenses

**KEY ECOSYSTEM PARTNERS**



and more...

**\$10.6B**

MARKET CAP (USD)

(Feb., 2024)

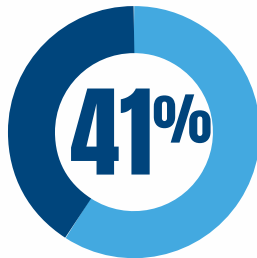


**WORLD'S LARGEST IPC COMPANY**

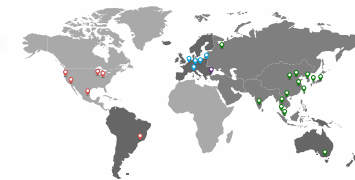
Advantech IPC WW Market Share

- Advantech
- Other IPC Companies

Source: OMDIA – Market Share Estimates for Industrial PCs: World, 2022 Edition



**WORLDWIDE OFFICES**



- Manufacturing 3
- On-site service 4
- Design centers 11
- CTOS centers 16
- Repair centers 17
- Logistics centers 20

More than 90 offices globally!

**8800+**  
EMPLOYEES





# Why are Industrial Peripherals so Important for a Successful Solution?

## Compatibility & Integration

Seamless User Experience  
Efficiency and Productivity  
Choice and Flexibility

## Longevity Support

Improved Quality of Life  
Reduced Healthcare Costs  
Social and Economic Benefits

## One-Stop Support

Service Coordination  
Convenience and Efficiency  
Accessibility and Consistency

## Total Cost Management

Comprehensive Cost Oversight  
Optimized Resource Allocation  
Risk Mitigation



5G & Networking



Robotics & AMR



Green Energy & EVs



High-End Medical



Rugged /  
Mission Critical

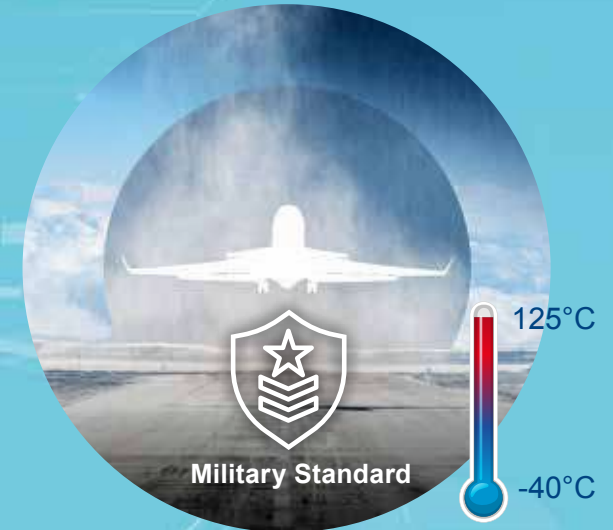
# Industrial SSD/Memory Provider with Expert Customized Services



**< 800 DPPM** Outstanding Quality

Advantech produces its own brand of SSD and DRAM products called “SQFlash” and “SQRAM” for the industrial market. The core concept of SQ products is security and reliability. The SQ team has devoted themselves to providing a reliable solution with industrial level quality to optimize system performance and ensure system stability while also offering customization service and intelligent software. We offer comprehensive products for various markets including servers and products for outdoor applications.

# Optimizing AI Platform Performance and Improving Reliability



## Comprehensive Security

UEFI-Based SSD security, software deployment, project support

## SQ Manager 2.0

Smarter software utility to secure your data 24/7 and to help maintain device stability and security

## Robust Design

Advantech SQ delivers durable solutions including anti-vibration, Power Loss Protection and wide temperature support






# Industrial Wireless Solutions

 **One-Stop**  
RF + Software Total  
Wireless Solution

 **Certification**  
Fast Support and  
Consultation

 **Antennas**  
Antenna Assessment,  
Design, and Testing

BT

5G

GNSS

LoRa

## AIW 100 Series Wi-Fi 6E / Wi-Fi 7



**AIW-170** M.2 2230 E-Key  
**AIW-171** Mini-PCle  
**AIW-173** M.2 2230 E-Key

## AIW 200 Series GNSS / GPS



**AIW-210** M.2 2242 B-Key  
**AIW-211** LCC Stamp Type  
**AIW-212** Mini-PCle

## AIW 300 Series Cellular Connectivity



**AIW-343** FMC/ SIM slot  
**AIW-346** M.2 3052 B-Key/FMC/ SIM Slot  
**AIW-357** M.2 3052 B-Key

## AIW 400 Series Bluetooth 5.4



**AIW-450**  
LGA Type

## AIW 500 Series Industrial Antenna Solution



Antennas for Wi-Fi 6, 6E, 7, GPS/GNSS, 4G LTE, 5G NR, Bluetooth, and RF cables



AIW is a leading industrial wireless solution provider empowering IoT devices, connecting to edge computing or the cloud via wireless technologies for AIoT. AIW offers diverse module and antenna solutions for different vertical applications and focuses on wireless system integration based with AIW Design-In service.

Wi-Fi



## Industrial Wireless Design-In Services

### Assessment

- Wireless solution selection
- System link budget
- Product spec. definitions

### RF & Antenna Design

- Module and antenna selection
- Customized antenna design

### FW & Integration

- Multiple OS driver support
- De-sense troubleshooting

### Validation Certification

- Wireless performance testing
- Certification support

# Wireless ePaper: Transforming Businesses Toward ESG Trend



## DeviceOn/ePaper remote management

- >10,000 ePaper devices and ePaper types
- Variety of connectivity (NFC, BLE, Wi-Fi, LTE)
- Utilities, APIs, and sample code ready
- Easy to integrate applications



## Device Management

- Remote control
- Monitor reports
- Status monitor



## Service Management

- FW OTA
- Image and task delivery
- Scheduling and events



## Image Generator Management

- Layout designer utility
- Drag-and-drop image components
- Image processing and generation

# ePaper Design-In Services



## Select a Suitable Model for Quick Kick-off

- Diverse STD model options for customization
- Multi-sourced to meet requirements
- Streamline development via standard products



## Dedicated PM for Project Management

- Dedicated PM from RFQ to mass production
- Stringent NPI development process
- Products and component lifecycle management



## Excellent Technical and R&D Team Support

- H/W (EE, ME, ID) team for industrial-grade quality
- S/W (Cloud, APPs, FW, API) team by demand
- RF (NFC, BLE, Wi-Fi, LTE) team for antenna and EMI service
- Fine-tuning and verification



## Feasible & Verified NPI Procedures

- Comprehensive DQA test flow
- Reliability and component compatibility tests
- RF, EMI, ISO, UL certification services



## Reliability Enhancement of Global Operations

- Global certification service
- Manufacturing services
- Local PSM and FAE support
- Logistics management
- Warranty service

Advantech provides hardware- and software-integrated wireless ePaper solutions that accelerate the implementation of a wide range of applications. These solutions, comprise ePaper devices, routers, and DeviceOn/ePaper management software. They are deployed in smart warehouses, factory automation, medical equipment, and public workspaces. Besides the standard products, Advantech also offers Design-In service to create outstanding custom ePaper products for specific applications.





# Industrial Display Solutions

Enrich your supply chain

**Design-In Services**

**Enhanced Pricing Effectiveness**

Enlarge your product portfolio

**Vertical-Focused Applications**

**Target Insights and Tailored Services**



- High Brightness
- Optical Bonding
- Touch Display Modules



- Rugged Design
- Plug and Play
- Comprehensive Product Offerings

Advantech's 15+ years of expertise helps us deliver cutting-edge Industrial Display Solutions for various sectors, including public information, factory automation, medical facilities, and gaming. Our design-in service offers flexible customization. Advantech is pioneering the areas of optical enhancements, high brightness, optical bonding, and curved touch displays, showcasing our commitment to industry to assist you in enriching your supply chain solutions.

# Industrial Display Solution Provider

## Your Industrial Display Expert

### Industrial Grade and Quality

- Greater durability and higher-quality solutions from Advantech IDS

### Domain-Focused Display Technology

- Value-added solutions
- Vertical domain-focused designs

### Longevity and Warranty

- 2-year product warranty
- Optional 3-year extended warranty

### Real-Time Services from Global Support

- Global manufacturing centers in Taiwan, China, USA
- Branch offices in 23 countries

# Empowering Edge Intelligence with Advanced AI and Security Solutions

Advantech excels in AI and IoT Security, providing efficient Edge AI platforms, along with end-to-end solutions for streamlined workflows. Within AIoT, our software provides dynamic support for the changing requirements of AI application development. For IoT Security, Advantech offers a one-stop solution with custom hardware modules, OS fixes, and AI-driven protection. DeviceOn ensures secure AIoT device connectivity and complete lifecycle management. Advantech's exclusive IEC62443 pre-assessment service, based on HW + SW and VoC certification, offers scalable security solutions for clients at various certification stages.





# Enhancing Efficiency and Security Through Software Distribution Solutions

## Security Levels

### Advanced Backup

#### Acronis

##### Backup & Recovery

- Complete backup and recovery
- Centralized remote management
- Acronis Active Protection

### Proactive Protection

#### Trellix

##### Whitelisting

- Application control
- Change control
- ePolicy Orchestrator

### Basic Defense



- BitLocker
- Windows Defender
- Windows Security Update

Exclusive Advantech Value-Added Tools

**Power Suite**

Advantech offers Microsoft Windows IoT OS, Trellix Security for IoT, and Acronis Backup and Recovery for use in embedded systems requiring heightened security. We have achieved over 10,000,000+ software license shipments to date. As an authorized Microsoft Global Distributor, our team of specialists is ready to assist in your project design process by providing PowerSuite development tools, ensuring a smooth deployment of Microsoft OS.

# Tremendous Support from Outstanding Strategic Partners



SSD and Memory Solutions



Wireless and Design-In Services



ePaper and ESG Solutions



Display Solutions



Edge Software, Distribution & Services





# Emerging Markets

In the evolving electric vehicle infrastructure, Fast Charging Stations require robust SSDs and wireless connectivity for stability and remote control. Their proliferation addresses market needs with diverse charging capabilities. Meanwhile, in electrical grids, Linux vulnerabilities pose risks. Ubuntu on Advantech computers provides long-term security updates. DeviceOn enhances data security with encrypted transmission and PKI infrastructure, mitigating identity theft. These innovations ensure resilience and efficiency in critical infrastructure.





- Wide temperature support: -40 ~ 85°C
- High speed, low latency
- Rugged, with coating and underfill to protect against humidity and climate impact



**SQF-C8M 730 SQR-SD4I**

- Front side is IP67-rated, protected against water and dust
- High brightness to provide excellent viewing performance
- Anti-UV solution to sustain a screen's lifespan under sunlight



**IDP31-070 , IDP31-150**

- Leveraging TPM, Ubuntu enables full disk encryption and security hardening, with 10 years of CVE maintenance
- Immutable OS with secure boot and signature checks



**Ubuntu**



**EPM-702 EPD-702 EPM-203**

- Seamless roaming between rooms with AGVs
- Simplified integration and deployment
- Image persistence during power loss



**AIW-169 AIW-513**

- Multi-OS support including Android, Linux and Windows
- Universal certification support for global markets
- IP66 waterproof antenna design for outdoor applications



**DeviceOn**

**Built-in PKI Lifecycle Management**

- Based on its proven secure server-client architecture, the edge orchestration software offers the creation and management of certificates, registries, and validation authority for equipment builders

# Factory Automation

Despite the efficiency of current systems, manual trolleys in production lines struggle to manage numerous orders, hampering accurate data tracking. To improve trolley management, wireless ePaper devices ensure real-time data tracking, reducing errors by 5% per month. Robotics offer round-the-clock efficiency, backed by reliable SSDs. For smart factories, AIW 5G modules offer reliable connectivity to support real-time decision-making to achieve more intelligent, efficient, economical, and safe factory operations. HMI devices are pivotal for communication and control.

However, with the increasing connectivity of factory equipment, cybersecurity risks have emerged. Trellix's whitelisting solution fortifies devices, while Acronis backup ensures swift recovery, minimizing losses.





- High endurance to support write-intensive behavior
- SSD controller self-updating data flush firmware to prevent data loss
- Cost-effective solution



**SQF-S4B 650**



**SQR-SD5N**

- Longevity support for at least 3 years
- Stable touch operation efficiency with resistive touch
- Flexible panel mount and open-frame design to minimize integration efforts



**IDS-3215**



**IDS-3110**



**AIW-357 AIW-533**



**EPD-230 , EPD-333**

- Superior anti-interference capabilities
- PAwR for efficient network management
- Enables real-time data updates

- Supports operating temperatures of -30 ~ 80°C
- Global SKU with FCC, IC, CE, NCC, and TELEC RF certifications
- Supports AIWTOOL software service

- Backs up your entire system, including OS, apps, and files
- Easy to restore data and software to different hardware for compatibility
- Actively prevent ransomware attacks



**Acronis Backup & Recovery**



**Trellix Whitelisting Solution**

- Prevents unauthorized applications and changes
- Defends against zero-day exploits and APTs without signatures
- Ensures easy setup with low operational overhead



# High-End Medical

In healthcare, ePaper solutions streamline real-time patient information display. Modern medical equipment, like Wi-Fi-enabled endoscopes, ensures seamless data transmission. SoftAP mode connectivity is crucial. Medical testing equipment aids disease investigation, ensuring comprehensive patient care. In industries requiring stability, Microsoft's IoT OS offers security and support. Advantech recommends AI model training software for medical labs, while NVIDIA AI Enterprise facilitates smooth deployment. Performance scores ensure optimal computing environments.





- Shows medication information while cart is delivering medicine
- Great anti-interference and PAwR to organize a 10,000-PC network
- Ultra-low power consumption for years of longevity

- DBDC (Dual band dual concurrent) feature
- Ultra high speed and extreme low latency of Wi-Fi 7 technology for real-time video streaming applications
- Universal certification support

- A licensed service bundled with AI training server and inference edge

**NVIDIA AI Enterprise**

- Enables anyone to build models rapidly and accelerate innovation across their businesses with AI.

**Intel® Geti™ Computer Vision AI Training Software**



**EPD-258 EPD-662**

- Simple setup, no network or power cables needed
- Bi-stable ePaper enhances patient comfort
- Bedside cards cut staffing needs, boost doctor-patient rapport



**EPM-203**



**SQF-C8M 930**

- PCIe Gen4 x4, M.2 2280,
- 480GB ~ 3.8TB
- Speed of up to 7.2 GB/s (read), 6.3 GB/s (write)
- Advanced device security
- feature for AES 256, OPAL 2.0



**AIW-173 AIW-513**



**IDK-1115WP IDK-1107**

- Industrial display kit with projected touch integrated for medical glove operation
- EMI noise immunity to avoid interference
- Flexible spatial mechanical design with LVDS and USB interfaces



**Microsoft Windows IoT OS**  
**Windows**

- Secures patient data and complies with HIPAA regulations
- Offers rapid out-of-the-box setup with advanced lockdown features
- Deploy secure medical devices with enterprise-grade security



# Rugged Mission Critical

In the intricate world of industrial and aerospace applications, where stability and precision are essential, AIW provides ruggedized wireless solutions for seamless data transmission and precise positioning. For drone applications, AIW GPS modules ensure accurate positioning in harsh environments. SQFlash & SQRAM can effectively provide reliable and high performance for critical applications in aircraft systems to guarantee the safety and reliability of aviation technology. Meanwhile, Microsoft's IoT OS, with a 10-year support commitment, enhances device stability and security, crucial in military settings.





**AIW-213**



**AIW-520**

- Supports industrial operating temperatures (-40 ~ 85°C)
- Supports update rate up to 50Hz
- Supports dead reckoning function

- DDR4 260-pin 3200 SODIMM
- Original Micron automotive-grade IC
- Default built-in sidefill technology



**SQR-SD4E**



**SQF-S25 840V**

- 2.5" Power Loss Protected SATA SSD
- Super Cap stabilizes the voltage
- Protects against data loss during sudden power outages

- Insider threat mitigation, no unauthorized changes
- Provides zero-day comprehensive security
- Reduced overhead ensures reliable system in critical scenarios



**Trellix Whitelisting Solution**



**Microsoft Windows IoT OS**  
**Windows**

- Built-in security features for data protection and system integrity
- Compatibility with industry standards within the existing ecosystem
- 10-year LTSC ensures device security and stability







# Industrial Peripheral and Software Services



## Leading Technologies

Global leader in the fields of IoT intelligent systems and embedded platforms.



## Global Service Team

Dedicated regional service team to ensure local services and support with flexibility and efficiency.



## Partner Ecosystem

Streamlined design-in services shorten design and integration cycles, ensuring time to market.



## Software Intelligence Support

Seasoned software service team offers experienced technical support to accelerate product deployment.



## One-stop Shop

Reliable one-stop-shop customer-centric and scenario-based solutions and services.

## Regional Service and Customization Centers

**China** Kunshan  
86-512-5777-5666

**Taiwan** Taipei  
886-2-2792-7818

**Netherlands** Eindhoven  
31-40-267-7000

**Poland** Warsaw  
00800-2426-8080

**USA** Milpitas, CA  
1-408-519-3898

## Worldwide Offices

### Asia Pacific

#### Taiwan

Toll Free 0800-777-111  
Taipei & IoT Campus 886-2-2792-7818  
Taichung 886-4-2372-5058  
Kaohsiung 886-7-392-3600

#### China

Toll Free 800-810-0345  
Beijing 86-10-6298-4346  
Shanghai 86-21-3632-1616  
Shenzhen 86-755-8212-4222  
Chengdu 86-28-8545-0198  
Hong Kong 852-2720-5118

### Middle East and Africa

Israel 072-2410527  
Turkey 90-212-222-0422  
Turkey-Bursa 90-224-413-3134

### Asia Pacific

#### Japan

Toll Free 0800-500-1055  
Tokyo 81-3-6802-1021  
Osaka 81-6-6267-1887  
Nagoya 81-0800-500-1055  
Nogata 81-949-22-2890

#### Korea

Toll Free 080-363-9494/5  
Seoul 82-2-3660-9255

#### Singapore

Singapore 65-6442-1000

#### Malaysia

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

#### Thailand

Bangkok 66-02-2488306-9

#### Vietnam

Hanoi 84-24-3399-1155  
Hochiminh 84-28-3836-5856

#### Indonesia

Jakarta 62-21-751-1939

#### Australia

Toll Free 1300-308-531  
Melbourne 61-3-9797-0100

#### India

Bangalore 91-94-4839-7300  
Pune 91-94-2260-2349

### Europe

#### Netherlands

Eindhoven 31-40-267-7000  
Breda 31-76-523-3100

#### Germany

Toll Free 00800-2426-8080/81  
Munich 49-89-12599-0  
Düsseldorf 49-2103-97-855-0

#### France

Paris 33-1-4119-4666

#### Italy

Milan 39-02-9544-961

#### UK

Newcastle 44-0-191-262-4844  
London 44-0-870-493-1433

#### Spain

Madrid 34-91-668-86-76

#### Sweden

Stockholm 46-0-864-60-500

#### Poland

Warsaw 48-22-31-51-100

#### Russia

Moscow 8-800-555-01-50  
St. Petersburg 8-812-332-57-27  
8-921-575-13-59

#### Czech Republic

Ústí nad Orlicí 420-465-524-421

#### Ireland

Galway 353-91-792444

### Americas

#### North America

Toll Free 1-888-576-9668  
Boston 1-949-420-2531  
Chicago 1-888-576-9668  
Cincinnati 1-513-742-8895  
Irvine 1-949-420-2500  
Milpitas 1-408-519-3898  
Ottawa 1-815-433-5100

#### Brazil

Toll Free 0800-770-5355  
São Paulo 55-11-5592-5367

#### Mexico

Toll Free 1-800-467-2415  
Mexico City 52-55-6275-2777