

Product Selection Guide Vol. 10

Industrial & Embedded Computing
IoT Connectivity & Sensing Device
Panel Appliance & Automation Solution

www.anewtech.net

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About Anewtech Systems

The Trusted One in Industrial Computing

Anewtech Systems, a leading industrial computing provider which specializes in integrating computing platforms and customization services. Founded in 1999, Anewtech has established itself as a leading provider of industrial computing solutions, through our commitment in providing workable solutions with a core focus on our customer's requirement. Today, we are located in Singapore as our headquarters, along with Malaysia and Vietnam as our regional offices.

Our range of high-quality, high-performance industrial computer boards, systems and peripherals has been implemented in thousands of applications and all recognized for its reliability. For clients concerned with incurring excessive personnel headcount for small scale manufacturing projects, we offer comprehensive OEM/ODM services that aim to reduce customer's turnabout time, thereby helping them to advance beyond their market competition. Anewtech, Technology Anew.

Vision

To be a world-class technology integrator and reach the "scopes of economics" by vertical integration and mass customization in industrial/ embedded computing and security/ connectivity arenas.

Commitment towards excellence

At Anewtech Systems, we always bear in mind the 5I principle to empower our customers by offering trustworthy products and services.

- Introduce latest and most innovative technologies
- Inform and advise our customers what to look out for in choosing an appropriate system
- Initiate possible solutions
- Integrate and interface various systems together as a solution
- Increase our customers' return on investment (ROI)

Product Focus

- Industrial & Embedded Computing
- Industrial Server & Storage
- Panel PC & Display System
- Wireless IoT Device & Module
- Wireless Router & Gateway
- Serial & USB Connectivity
- ZigBee and RF Module
- Digital Signage & Survey System
- Industrial Tablet PC & PDA
- Industrial RFID
- Industrial Communication
- Data Acquisition & Control
- Network Security Appliance
- Rack KVM & LCD Drawer

Service Type



Quotation



Project Consultant



Technical Support



Solution Alliance



RMA/DOA



Assembly/Test



Logistics



Customization



ODM

About Anewtech Systems

Proven Technologies for Innovative Industrial Applications

- Providing serial server for KPE underground tunnel, remote traffic control and messaging systems
- Implement our terminal server to a local tertiary campus-wide for out of band network management
- Supply our terminal server and console server to telecoms carrier provider for remote monitoring and configuring their routes, switches, UPS, Sun Servers, IBM serves, etc.
- Provide our multi-serial interfaces to rugged mobile data server onboard public safety vehicles like ambulance, fire engine vehicles, coast guard patrol craft, patrol car, etc.
- Supply and install flat panel computer systems for power monitoring to the Power Supply Authority
- Supply and install rugged industrial notebooks to the defense ministry
- Supply and install rugged computer systems for coastal surveillance
- Supply and install embedded board for hard disk drive testing
- Supply and deliver industrial computer systems for telecommunications & broadcast
- Supply and deliver industrial computer systems for light-rail trains (LRT) applications
- Supply and deliver blue tooth GPRS controller for military defense applications
- Supply and deliver RFID tags and readers for clean room facilities
- Supply and deliver wireless applications for bus stop information system

Product Application

Our Product Lines are build with a vertical market focus

- Bio-chemical
- Building Automation
- Defence and Infrastructure
- Education
- Facility Management System
- Government
- Industrial Automation
- Medical and Healthcare
- Digital Video Surveillance
- Process & Control
- Utilities
- Retail
- Telecommunication/ Broadcasting
- Data Center
- Transportation & Logistic

Recognized for Excellence

Quality Assurance

All Anewtech products have been rigorously tested in the quality assurance and compliance laboratory to ensure high quality, durability and compliance. All assembly are done in a static-free environment, follow on with stringent quality control at all stages: incoming, in-process and outgoing.

Our Quality Policy

- Consistent high quality products
- Timely delivery of products
- Strong commitment towards total customer satisfaction
- Dedicated to the continual improvement of products, services and QMS
- Comply with contractual, legal and QMS

Awards



About Anewtech Systems

Reliability Assurance

Comprehensive quality assurance tests are performed on all Anewtech products throughout the product development cycle. Quality assurance tests are initiated in the research and development phase of a product and are continued all the way through to the manufacturing phase. Quality assurance testing throughout the product development cycle ensure all Anewtech products are able to provide stable performance in the industrial environments they are used in.



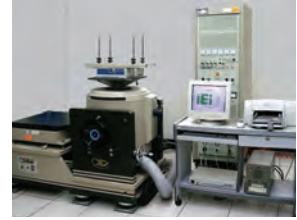
Temperature Testing



Drop Testing



ESD Testing



Vibration Testing



IP65 Testing



Power Consumption Testing



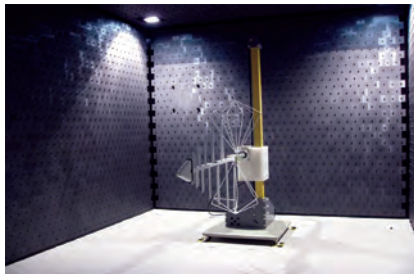
Thermal Testing



Safety Testing

Product Compliance Testing

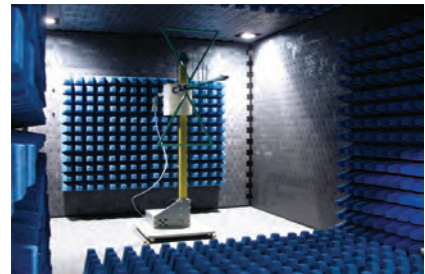
In order to develop time-to-market products that comply with safety, EMC certification and environmental directives across the globe, most Anewtech products have gone through the three certification-compliant labs including the EMI/ RF chamber, EMI chamber and semi-anechoic room. These labs are essential to help ensure the safety of our products as well as to reduce costs and improve the quality of our products and services. Most of our products are UL, VCCI, FCC and/or CE certified.



EMI Chamber



Semi-anechoic Room



EMI / RF Chamber

Certified Quality Assurance System

At Anewtech, quality is our main priority. A complete line of safety, EMC and reliability measures such as ESD, vibration, drop testing, temperature, humidity and HALT chambers are available to ensure our products meet the strictest standards. All facilities are at least ISO 9001 and 14001 certified while others hold additional certifications such as ISO 13485, 17025, TL9000 and OHSAS18001. All our products are 100% RoHS compliant.

- Complete ISO coverage
- Green policies
- Constant quality and reliability monitoring
- Ease of access to quality contacts

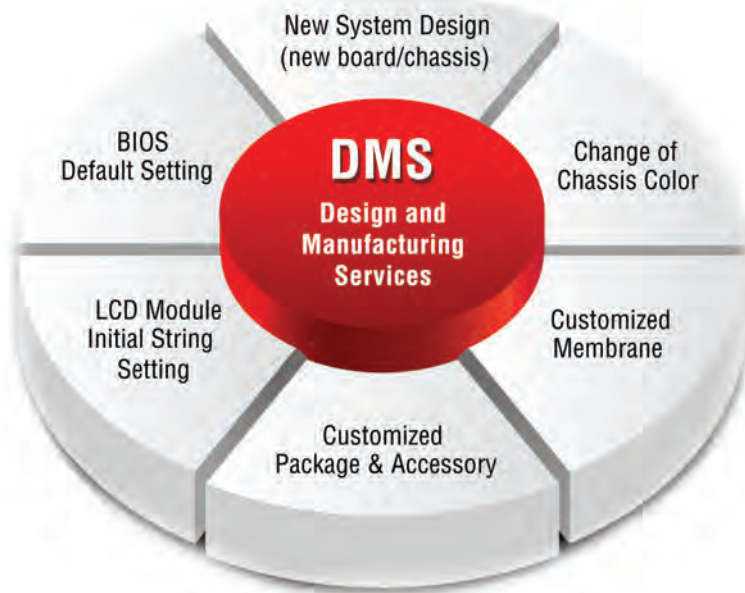


About Anewtech Systems

Design and Manufacturing Services (DMS)

Customized Service for Tailor-Made Solutions

Anewtech provides cost-effective and time-to-market Design and Manufacturing Services (DMS). The DMS offers product customization from core modular designs to finished products based on customers' specifications in all kinds of industrial field. With decades of industrial computing experience, Anewtech has the capability to provide different levels of customized service to manufacture innovative products with exceptional high quality. The levels of the service include manufacturing new system based products to fulfil customers' unique applications.



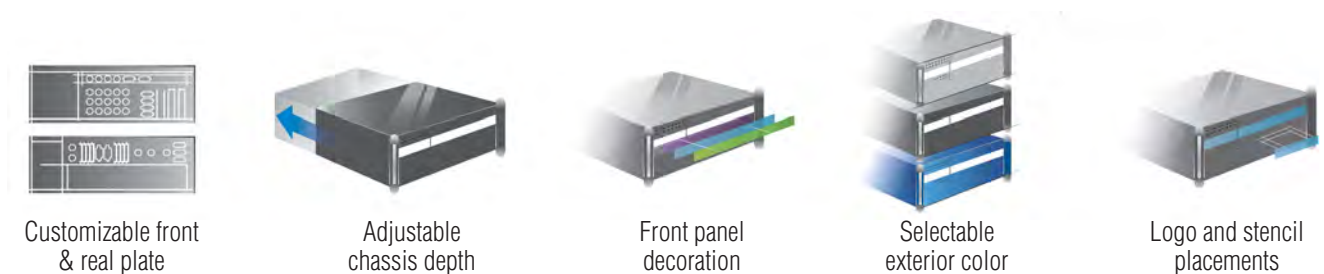
Unique DMS Features

With vast experience, the know-how, leading technology and innovative design capabilities, Anewtech DMS incorporates the following features:

- Prompt Time-to-Market
- Flexible Design and Manufacturing
- Rigid Quality Control
- Extensive DMS Experience

Customization to Order Service (CTOS)

Anewtech also provides CTOS, which is a quick-to-market solution by modifying the existing products to fit your business requirements, such as BIOS setting, component change by using current PCM layout, chassis color change, and packing accessories etc.



Applications

Manufacturing

The Internet of Things (IoT), which gives users the ability to control their devices from wherever they are, is moving into industrial automation. Industrial touch panel PC with high processing power performance, elegant design, ruggedness, and high reliability are required for industrial automation. Anewtech provides industrial grade panel PC with full lineup of I/O options, enable factory operate more effectively and increase productivity.



Industrial Communication



Remote I/O



M2M Router



Embedded
Automation Computer



HMI/ Panel PC

Medical

Information and digital technologies are designed to improve service quality and form a new outlook for digital healthcare. Patients, doctors, and nurses, as well as all relevant medical data, are all linked in this vision of smart medical care. Mobile solutions provide seamless communication at the point of care, streamlining productivity, improving quality, and increasing satisfaction.



Industrial Board & System



Embedded Board & System



Medical Tablet PC



Medical Panel PC

Applications

Military

Military series of panel PC and display are designed to be industrial grade, and undergo rigorous testing to ensure safety and performance, going beyond military standard compliance. Built to survive drops, shocks, liquid spills, vibrations, dust, salt, and extreme temperatures, the specially designed military line of products has been tested for MIL-STD-810G environmental and MIL-STD 461F EMC standard. Military panel PC and display also come with MIL-DTL-38999 type I and III connectors – high-performance cylindrical connectors for cable-to-panel I/O applications in military, air traffic controller, or other mission-critical situations.



Military Display



Military Panel PC



Ultra-Rugged Tablet PC



Military Computer

Marine

Marine Panel PC and Display delivers connectivity, and the ability to control and power multiple devices at once, while meeting with the international special certifications (DNV 2.4, IACS-E 10, IEC 60945 4th Edition). The multi-touch marine display and panel PC go beyond that of the standard industrial marine PC with elegant and edge-to-edge designs, rugged construction, powerful performance, and flexible mounting options.



Marine Embedded Automation Controller



Marine Panel PC



Marine Display

Applications

Oil and Gas

From exploration and development, drilling and production, to fuel transportation and processing, creating reliable, efficient and accurate monitoring and control systems is important for every stage of the oil & gas industry. Anewtech offers ATEX and Class 1 Division 2 (C1D2) certified solutions for maintaining safe operations and collecting sensitive data in remote rig and pipeline locations.



DIN-Rail Embedded PC



Aluminum Panel PC



Stainless Steel Panel PC



Industrial Ethernet Switch

Data Centre

Industrial server and storage products range from Server Motherboard, Server Chassis, Pre-configured server system, GPU Server, Workstations to storage products such as JBOD, External Disk Array, and Storage Server. Products feature Intel Xeon processors, ECC DDR4 memory, SAS/SATA/NVMe hot-swap drive bays, and Intelligent Platform Management Interface (IPMI) and VMware/NVIDIA/AMD validation, which are essential for data centre applications.



Rack LCD Drawer



KVM Switch



Network Appliance



Industrial Server



Storage Server

Applications

Field Service & Logistic

In warehouse environments, safety, security, and fast, reliable data collection and communications are imperative. Wireless communications and connectivity options ensure operation efficiency, streamlined work order fulfillment and safety for workers in the field. Rugged Tablet PC and PDA available in 4.3" ~ 13.3" size option, Android or Windows OS with optional 3G, GPS, NFC, RFID, 1D/2D barcode reader.



Rugged PDA



Rugged Tablet PC



Vehicle-mounted PC

Retail

The key to smart retail is to use big data effectively for precise marketing. Anewtech has developed a couple of retail solutions that address the needs of retail industry, such as video wall, intelli-signage, customer survey system, toilet feedback system, and service robot.





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Industrial Computing

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Industrial Computing

Full Spectrum of Computing Platform

Industrial Motherboard

Complete range of industrial motherboards in various form factors from performance-rich ATX to best price/ performance MicroATX and ultra compact highly integrated Mini-ITX. These motherboards are highly integrated and deliver advanced features like multi-core processing and PCI Express technology. They are suited for demanding industrial applications that require seamless upgrades, long term support, proven reliability and strict revision control.



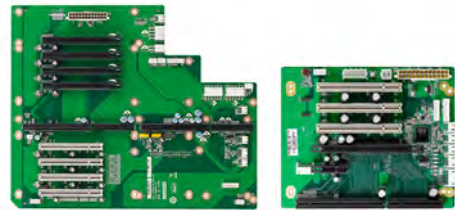
Single Board Computer

CPU cards deliver a variety of solutions for industrial and embedded applications. Anewtech offering a complete selection of standard PICMG 1.0/1.3 full-size as well as half-size SBCs, scalable product lines have flexible IO capabilities and great expansibility available from ISA to PCI and PCI Express. Ideal for industrial slot-hungry demands, they can be easily accommodated with full-range backplane, chassis and peripheral support.



Passive Backplane

A wide range of backplanes are available for PICMG 1.0/1.3 SBCs. They range from two to twenty slots and allow optimal system configurations with flexible combinations of ISA, PCI and PCIe slots. With strict design policy, customers can easily recognize specific solutions so as to ensure system compatibility.



Industrial Computer Chassis

Industrial computer chassis from 1U to 7U rackmount, to wall-mountable, designed to support a variety of industrial-grade motherboard/ single board computer (SBC) form factors, such as ATX, MicroATX, Mini-ITX, PICMG 1.0/1.3 fullsize/ half-size SBC, 3.5"/5.25" SBC, etc. Chassis features range from redundant power supply, hot-swappable accessories, storage and cooling options, and system fault detection mechanisms.



Industrial Power Supply

Power supply unit include ATX power supply, PS/2 power supply, redundant power supply and small form power supply. The power supply unit stabilize electric current and optimize power efficiency which increase system life significantly.



Industrial Computing

Full Size PICMG 1.3 CPU Card



Model	I-SPCIE-C236	I-SPCIE-C2260-i2	I-PCIE-Q370	I-PCIE-Q170
CPU Socket	LGA1151	LGA 1150	LGA1151	LGA1151
CPU Type	Inte Xeon E3, Core™ i3, Pentium, Celeron processor	Intel Xeon E3, Core™ i3, Pentium, Celeron processor	8th gen Intel Core i7/i5/i3, Pentium or Celeron processor	6th gen Intel Core™ i7/i5/i3, Celeron and Pentium processor
Chipset	Intel C236	Intel C226	Intel Q370	Intel Q170
Memory	Four 288-pin 1866/2133 MHz Dual-Channel DDR4 ECC & non-ECC unbuffered DIMM support up to 64GB	Four 240-pin 1600/1333 MHz dual-channel DDR3 & DDR3L SDRAM unbuffered DIMMs (system max. 32 GB)	Four 288-pin 2666MHz dual-channel DDR4 SDRAM unbuffered DIMMs support up to 64GB	Four 288-pin 1866/2133 MHz dual-channel non-ECC unbuffered DDR4 DIMMs (system max. 64 GB)
Display Interface	Triple display supported 1 x VGA 1 x iDP interface	Dual display supported 1 x VGA 1 x iDP interface	Dual display supported 1 x VGA 1 x DP	Triple display supported 1 x VGA 1 x iDP interface
Ethernet	LAN1: Intel I219LM Clarkville-V with Intel AMT 11.0 supported LAN2: Intel I210 PCIe controller	LAN1: Intel I217LM with Intel AMT 9.0 support LAN2: Intel I210-AT PCIe controller with NCSI support	LAN1: Intel I219LM PHY LAN2: Intel I211-AT PCIe controller (Co-lay I210-AT)	LAN1: Intel I219LM Clarkville-V with Intel AMT 11.0 supported LAN2: Intel I210 PCIe controller
iRIS Remote Management Module	1 x iRIS-2400 slot (Optional)	1 x iRIS-2400 slot	N/A	1 x iRIS-2400 slot (optinoal)
I/O Interface	1 x 6-pin wafer for KB/MS 1 x LPT 2 x RS-232 2 x RS-232/422/485 4 x USB 3.1 Gen 1 (5Gb/s) 7 x USB 2.0	1 x 6-pin wafer for KB/MS 1 x LPT 1 x RS-422/485 4 x RS-232 4 x USB 3.1 Gen 1 (5Gb/s) 8 x USB 2.0	1 x 6-pin wafer for KB/MS 1 x RS-422/485 3 x RS-232 4 x USB 3.1 Gen 1 (5Gb/s) 7 x USB 2.0	1 x 6-pin wafer for KB/MS 1 x LPT 2 x RS-232 2 x RS-232/422/485 4 x USB 3.1 Gen 1 (5Gb/s) 7 x USB 2.0
Storage Interface	6 x SATA 6Gb/s (RAID 0/1/5/10 supported)	6 x SATA 6Gb/s (RAID 0/1/5/10 supported)	6 x SATA 6Gb/s (RAID 0/1/5/10 supported)	6 x SATA 6Gb/s (RAID 0/1/5/10 supported)
Audio	Supports by IEI AC-KIT-892HD-R10 audio kit			
Digital I/O	8-bit programmable digital I/O			
Power Consumption	5V@3.22A, 12V@6.81A, 3.3V@1.21A, 5VSB@0.18A (Intel Xeon E3-1275 v5 3.60 GHz CPU with 64GB (four 16GB) 2133 MHz DDR4 memory)	5V@3.55A, 12V@0.37A, Vcore_12V@7.61A, 3.3V@1.55A, 5VSB@0.13A (Intel E3-1240 v3 3.4GHz CPU with 16 GB (four 4GB) 1333 MHz DDR3 memory)	5V@3.12A, 12V@6.85A, 3.3V@1.13A, 5VSB@0.15A (4.0 GHz Intel Core™ i7-8700K CPU with four 16 GB 2666 MHz DDR4 memory)	5V@3.12A, 12V@6.85A, 3.3V@1.13A, 5VSB@0.15A (Intel Core™ i7-6700K 4.0GHz CPU with 64GB (four 16GB) 2133 MHz DDR4 memory)
Watchdog Timer	Software programmable supports 1~255 sec. system reset			
Operation Environment	Temperature Range: -20°C ~ 60°C Relative Humidity: 5% ~ 95%, non-condensing			
Expansion Slot	1 x Full-size PCIe Mini card slot (support mSATA)	1 x Full-size PCIe Mini card slot (support mSATA)	1 x M.2 M key 1 x PCIe x16 & 4 x PCIe x1 signal via golden finger	1 x Full/Half-size PCIe Mini card slot 4 x PCIe x1 signal via golden finger
CPU Cooler	CF-1150SB-R11 CF-1150SC-R20 CF-1150SE-R11	CF-1150SB-R11 CF-1150SC-R20 CF-1150SE-R11 CF-1150SF-R10	CF-1150SB-R11 CF-1150SC-R20 CF-1150SE-R11	CF-1150SB-R11 CF-1150SC-R20 CF-1150SE-R11

- 1 Industrial Computing
- 2 Industrial Server & Storage
- 3 Embedded Computing
- 4 Panel PC/ Display
- 5 Rugged Mobile Computing
- 6 IoT Connectivity
- 7 Industrial Communication
- 8 Remote I/O & Wireless I/O Module
- 9 Industrial RFID

Industrial Computing

Full Size PICMG 1.0 CPU Card

Half Size PICMG 1.3 CPU Card



Model	I-WSB-BT	I-WSB-H810	I-WSB-H610	I-HPCIE-C236	I-HPCIE-Q170
CPU Socket	On board	LGA 1150	LGA 1155	LGA 1151	LGA 1151
CPU Type	Intel Celeron J1900 on-board SoC Intel Celeron N2807 on-board SoC	Intel Core™ i7/i5/i3, Pentium, Celeron processor	Intel Core™ i7/i5/i3, Pentium, Celeron processor	Intel Xeon E3, Core™ i3, Pentium, Celeron processor	Intel Core™ i7/i5/i3, Pentium, Celeron processor
Chipset	N/A	Intel H81	Intel H61	Intel C236	Intel Q170
Memory	One 204-pin 1066/1333 MHz single channel DDR3L SDRAM unbuffered DIMM (system max. 8 GB)	Two 240-pin 1600/1333 MHz dual-channel DDR3 & DDR3L SDRAM unbuffered DIMMs (system max. 16 GB)	Two 240-pin 1333/1066 MHz dual-channel DDR3 & DDR3L (1.35V) DIMMs supported (system max. 16 GB)	Two 260-pin 1866/2133 MHz dual-channel DDR4 SO-DIMMs (system max. 32 GB)	Two 260-pin 1866/2133 MHz dual-channel DDR4 SO-DIMMs (system max. 32 GB)
Display Interface	Triple display supported 1 x VGA 1 x 18/24-bit dual-channel LVDS 1 x iDP interface	Dual display supported 1 x VGA 1 x iDP interface	1 x VGA 1 x DVI-D (via header to IO-KIT-001-R20 DVI-D/USB module)(optional)	Dual display supported 1 x VGA 1 x iDP interface	Dual display supported 1 x VGA 1 x iDP interface
Ethernet	LAN1: Intel I211-AT PCIe controller LAN2: Intel I211-AT PCIe controller	LAN1: Intel I217-V LAN PHY LAN2: Intel I211-AT Ethernet controller	LAN1: Realtek RTL8111E PCIe GbE controller with ASF 2.0 LAN2: Realtek RTL8111E PCIe GbE controller	LAN1: Intel I219-LM with Intel AMT 11.0 support LAN2: Intel I211-AT Ethernet controller	LAN1: Intel I219-LM with Intel AMT 11.0 support LAN2: Intel I211-AT Ethernet controller
I/O Interface	1 x KB/MS 1 x LPT 1 x USB 3.1 Gen 1 (5Gb/s) 2 x RS-232/422/485 4 x RS-232 6 x USB 2.0	1 x 6-pin wafer for KB/MS 1 x LPT 1 x RS-422/485 2 x USB 3.1 Gen 1 (5Gb/s) 4 x RS-232 8 x USB 2.0	1 x 6-pin wafer for KB & MS 1 x FDD 1 x LPT 1 x PS/2 KB/MS 1 x RS-422/485 2 x RS-232 7 x USB 2.0	1 x 6-pin wafer for KB/MS 2 x RS-232/422/485 2 x USB 3.1 Gen 1 (5Gb/s) 4 x USB 2.0	1 x 6-pin wafer for KB/MS 2 x RS-232/422/485 2 x USB 3.1 Gen 1 (5Gb/s) 4 x USB 2.0
Storage Interface	1 x mSATA (colay SATA2, supports SATA 3Gb/s signal only) 1 x CF Type II 2 x SATA 3Gb/s	1 x SATA 3Gb/s 2 x SATA 6Gb/s	4 x SATA 3Gb/s	1 x mSATA (SATA & USB signal) 2 x SATA 6Gb/s (RAID 0/1 supported)	1 x mSATA (SATA & USB signal) 2 x SATA 6Gb/s (RAID 0/1 supported)
Audio	IEI AC-KIT-892HD-R10 7.1-channel HD Audio kit via the on-board 10-pin header connector				
Digital I/O	8-bit digital I/O				
Power Consumption	3.3V@0.009A, 5V@4.68A, 5Vsb@0.008A, 12V@1.143A	5V@3.41A, 12V@0.35A, Vcore_12V@7.52A, 3.3V@1.41A, 5VSB@0.12A	5V@4.53A, 12V@0.19A, Vcore_12V@7.81A, 5VSB@0.18A	5V@0.13A, 12V@7.89A, 3.3V@0.10A, 5VSB@0.20A	5V@0.15A, 12V@8.39A, 3.3V@0.11A, 5VSB@0.21A
Watchdog Timer	Software programmable and supports 1~255 sec. system reset				
Operation Environment	Temperature Range: -20°C ~ 60°C Relative Humidity: 5% ~ 95%, non-condensing		-10°C ~ 60°C 5% ~ 95%, non-condensing	-20°C ~ 60°C 5% ~ 95%, non-condensing	
Expansion Slot	1 x Full/Half-size PCIe Mini card slot (support mSATA)	1 x Full/Half-size PCIe Mini card slot (support mSATA)	1 x Full/Half-size PCIe Mini card slot	N/A	N/A
CPU Cooler	Heatsink	CF-1150SB-R11 CF-1150SC-R20 CF-1150SE-R11 CF-1150SF-R10	CF-115XA-R10 CF-1156C-R20 CF-1156D-R20 CF-115XE-R10	CF-1150SB-R11 CF-1150SC-R20 CF-1150SE-R11	CF-1150SB-R11 CF-1150SC-R20 CF-1150SE-R11

Industrial Computing

Half Size PICOe/ PCISA CPU Card



Model	I-PICOe-B650	I-PICOe-HM650	I-PCISA-BT	I-IOWA-LX
CPU Socket	LGA 1155	Socket G2	On board	On board
CPU Type	Socket LGA 1155 Intel Core™ i7/i5/i3, Pentium or Celeron CPU	Socket 988B Intel Mobile Core™ i7/i5/i3 or Celeron CPU	Intel Atom™ E3845 on-board SoC (1.91GHz, quad-core, 2MB cache, TDP=10W) Intel Atom™ E3825 on-board SoC (1.33GHz, dual-core, 1MB cache, TDP=6W)	AMD Geode™ LX600
Chipset	Intel B65	Intel HM65	N/A	AMD Geode™ CS5536
Memory	One 204-pin 1333/1066 MHz DDR3/DDR3L (1.35V) SO-DIMM supported (system max. 8 GB)	Two 204-pin 1333/1066 MHz dual-channel DDR3 SO-DIMMs supported (system max. 16 GB)	One 204-pin 1066/1333 MHz single-channel DDR3L SDRAM unbuffered DIMM (system max. 8 GB)	On-board 128MB 200/266 MHz DDR SDRAM One 200-pin 200/266 MHz DDR SO-DIMM (system max. 512MB)
Display Interface	1 x VGA	Dual display supported 1 x VGA 1 x 18/24-bit dual-channel LVDS	Dual display supported 1 x VGA 1 x iDP interface	1 x VGA
Ethernet	LAN1: Realtek RTL8111E PCIe GbE controller with ASF 2.0 support LAN2: Realtek RTL8111E PCIe GbE controller	LAN1: Realtek RTL8111E GbE controller with ASF 2.0 support LAN2: Realtek RTL8111E GbE controller	LAN1: Intel I211-AT PCIe controller LAN2: Intel I211-AT PCIe controller	10/100Mbps Realtek RTL8100C Ethernet controller
I/O Interface	1 x 6-pin wafer for KB & MS 2 x RS-232 4 x USB 2.0	1 x 6-pin wafer for KB & MS 1 x LPT 1 x RS-422/485 2 x RS-232 8 x USB 2.0	1 x 6-pin wafer for KB/MS 1 x LPT 1 x RS-422/485 2 x RS-232 2 x USB 3.1 Gen 1 (5Gb/s) 8 x USB 2.0	1 x Infrared interface 1 x LPT 1 x PS/2 KB/MS 1 x RS-422/485 2 x RS-232 4 x USB 2.0 (by pin header)
Storage Interface	1 x SATA 3Gb/s 1 x SATA 6Gb/s	2 x SATA 3Gb/s 2 x SATA 6Gb/s	1 x mSATA (colay SATA2, supports SATA 3Gb/s signal only) 2 x SATA 3Gb/s	1 x CF Type II 1 x FDD 1 x IDE 2 x SATA (RAID 0, 1)
Audio	IEI AC-KIT-892HD-R10 7.1-channel HD Audio kit via the on-board 10-pin header connector			Realtek ALC203 with AC'97 codec
Digital I/O	8-bit digital I/O			
Power Consumption	5V@3.17A, 12V@0.46A, Vcore_12V@7.26A, 5VSB@0.18A (3.4GHz Intel Core™ i7-2600K with two 2 GB 1333 MHz DDR3 memory)	5V@3.99A, 12V@0.43A, Vcore_12V@3.80A, 5VSB@0.06A (2.70GHz Intel Core™ i7-2620M with two 2 GB 1333 MHz DDR3 memory)	5V@1.55A, 12V@0.74A (Intel Atom™ E3845 1.91GHz CPU, one 8 GB 1600 MHz memory)	5V@1.51A, 5VSB@0.09A (On-board AMD Geode™ LX600 CPU 366 MHz with on-board 128MB 200 MHz DDR memory and 512MB 333 MHz DDR memory)
Watchdog Timer	Software programmable supports 1~255 sec. system reset			
Operation Environment	Temperature Range: -10°C ~ 60°C Relative Humidity: 5% ~ 95%, non-condensing		Temperature Range: -10°C ~ 60°C Relative Humidity: 5% ~ 95%, non-condensing	Temperature Range: 0°C ~ 60°C Relative Humidity: 5% ~ 95%, non-condensing
Expansion Slot	NA	NA	1 x PCIe Mini slot	NA
CPU Cooler	CF-115XA-R10 CF-1156C-R20 CF-1156D-R20 CF-115XE-R10	CF-989A-RS-R12	NA	Heatsink (fanless)

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Industrial Computing

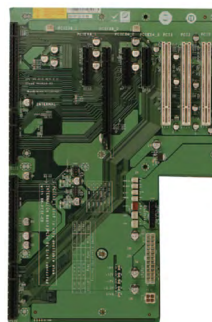
PICMG 1.3 Passive Backplane

PICMG 1.3 (PCIe+PCI)	I-PE-2SD1	I-PE-2SD2	I-PE-4S	I-PE-4S2	I-PE-5S	I-PE-5S2	I-PE-6S	I-PE-6S2	I-PE-6SD	I-PE-6SD2	I-PE-6SD3
Total Slot	2	2	4	4	5	5	6	6	5	5	5
Expansion Slots	PCIe Slots	x16 *	1	1	1	1	1	1	1	1	1
		x4			1	1	1				
	x1										
	PCI-X Slots										
PCI Slots		1	1	2	2		2	3		1	2
USB Connectors by Pin Header	4	4	4	4	4	4	4	4	4	4	4
PSU Type	24+4-pin ATX	24+4-pin ATX	24+4-pin ATX	24+4-pin ATX	24+4-pin ATX	24+4-pin ATX	24+4-pin ATX	24+4-pin ATX	24+4-pin ATX	24+4-pin ATX	24+4-pin ATX
Chassis	RACK-1150-PE RACK-1151-PE	RACK-1150-PE RACK-1151-PE	N/A	N/A	RACK-500G	RACK-500G	RACK-305G RACK-360G RACK-3000G PAC-1700G	PAC-106G x 1 PAC-107G x 1 PAC-1000G	N/A	N/A	N/A
Note	1U Type	1U Type							2U Type	2U Type	2U Type

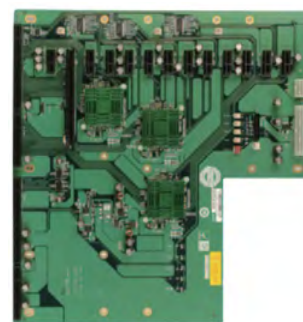
PICMG 1.3 (PCIe+PCI)	I-PE-7S	I-PE-7S2	I-PE-8S	I-PE-9S	I-PE-10S	I-PE-10S2	I-PE-13SD	I-PXE-9S2	I-PXE-12S	I-PXE-13S	PXE-19S2
Total Slot	7	7	8	9	10	10	13	9	12	13	19
Expansion Slots	PCIe Slots	x16 *	1	1	1	1	1/1	1	1	1	1
		x4						1/0	3		
	x1	2	4	3	4	4	0/4	0		3	1
	PCI-X Slots							0	4		
PCI Slots	3	1	3	3	4	4	2/2	4	4	8	16
USB Connectors by Pin Header	4	4	4	4	4	4	8	4	4	4	4
PSU Type	24+4-pin ATX	24+4-pin ATX	24+4-pin ATX	24+4-pin ATX	24+4-pin ATX	24+4-pin ATX	24+4-pin ATX	24+4-pin ATX	24+4-pin ATX	24+4-pin ATX	24+4-pin ATX
Chassis	PAC-1700G	PAC-1700G	PAC-125G	N/A	RACK-305G RACK-360G RACK-3000G	RACK-305G RACK-360G RACK-3000G	RACK-305G RACK-360G RACK-3000G	RACK-305G RACK-360G RACK-3000G	RACK-305G RACK-360G RACK-3000G	RACK-305G RACK-360G RACK-3000G	N/A
Note							Dual System Backplane	PCIe to PCIe Switch Backplane	PCIe to PCI-X Bridge Backplane	PCIe to PCI Bridge Backplane	

PICMG 1.3 Backplane

PICMG 1.3	I-SPE-4S	I-SPE-6S	I-SPE-9S	I-SPXE-14S
Total Slot	4	6	7	14
PCIe	x16			
	x8	2 (x16 connector)		1 (x16 connector)
	x4	1	5	3
	x1			
	PCI-X			
PCI			3	
PSU Type	24+4-pin ATX	24+4-pin ATX	24+4-pin ATX	24+8-pin ATX
Chassis Option	PAC-106G PAC-107G PAC-1000G	PAC-106G PAC-107G PAC-1000G	PAC-125G	RACK-305G RACK-360G RACK-3000G



I-SPE-9S



I-SPXE-14S

PICMG 1.3 Passive Backplane for Half-Size CPU Card

PICMG 1.3 (PCIe+PCI)	I-HPXE2-5S1	I-HPXE2-7S1
Total Slot	5	7
Expansion Slots	PCIe x16	1
	PCIe x8	
	PCIe x4	5
	PCIe x1	
	PCI-X	
PCI	2	3
PSU Type	24+4-pin ATX	24+4-pin ATX
Chassis Option	PR-1500G RACK-500G	PAC-700G PAC-1700G



I-HPXE2-5S1



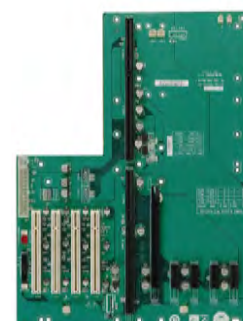
I-HPXE2-7S1



I-PE-6S2



I-PE-7S2



I-PE-10S

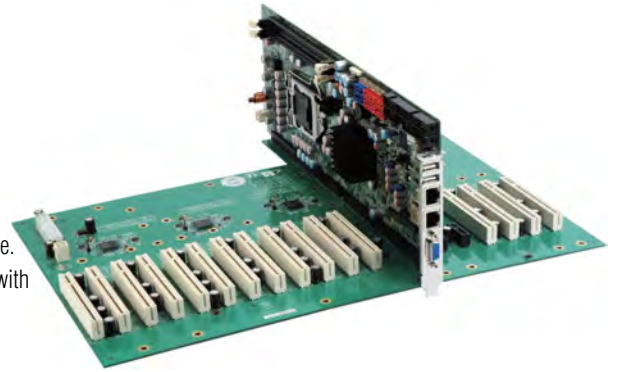
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PICMG 1.0 Passive Backplane

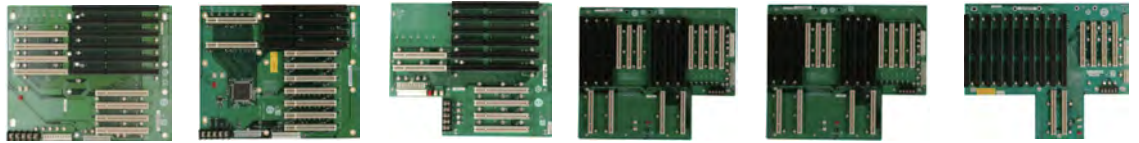
Supports PCI and ISA slot on one backplane.

The advantages of using the PICMG 1.0 card series are:

1. Supports standard PICMG version 1.0 slot on the PCI/PX series passive backplane.
2. Compatible with all available PCI/ISA cards. PCI/PX backplane is also integrated with the ROCKY series card slot.



Model	I-PCI-4S-RS-R40	I-PCI-5S-RS-R40	I-PCI-5S2A-RS-R40 I-PCI-5S2-RS-R40	I-PCI-6S-RS-R40	I-PCI-7S-RS-R41	I-PCI-8S-RS-R40
Total Slot	4	5	5	6	7	8
PCI Slot	3	3	4	4	4	4
ISA Slot	1	2	1	2	3	4
PSU Type	ATX/AT	ATX/AT	ATX/AT	ATX/AT	ATX/AT	ATX/AT
Chassis	N/A	PAC-1000G	RACK-500G	PAC-106G PAC-107G PAC-1000G	PAC-1700G	N/A



Model	I-PCI-10S-RS-R41	I-PCI-10S2-RS-R41	I-PX-10S-RS-R50	I-PCI-12S-RS-R40	I-PCI-13SD-RS-R40	I-PCI-14S-RS-R40
Total Slot	10	10	10	12	13	14
PCI Slot	4	4	7	4	3+4	4
ISA Slot	5	5	3	7	3+3	9
PSU Type	ATX/AT	ATX/AT	ATX/AT	ATX/AT	ATX/AT	ATX/AT
Chassis	PAC-125G	N/A	PAC-125G	RACK-3000G	RACK-305G RACK-360G RACK-3000G	N/A
Note					For Dual System	



Model	I-PCI-14S2-RS-R40	I-PCI-14S3-RS-R40	I-PX-14S3-RS-R50	I-PX-14S5-RS-R50	I-PX-20S3-RS-R40
Total Slot	14	14	14	14	20
PCI Slot	4	4	12	7	18
ISA Slot	8	9	2	6	1
PSU Type	ATX/AT	ATX/AT	ATX/AT	ATX/AT	ATX/AT
Chassis	RACK-305G RACK-360G RACK-3000G	RACK-305G RACK-360G RACK-3000G	RACK-305G RACK-360G RACK-3000G	RACK-305G RACK-360G RACK-3000G	N/A



Model	I-PCI-2SD2-RS-R41	I-PCI-5SD5-RS-R40	I-PCI-5SD6-RS-R40	I-PCI-5SDA-RS-R40	I-PCI-6SD-RS-R40/PCI-6SR-RS-R30
Total Slot	2	6	6	6	6
PCI Slot	R2	L2+R2	L2+R2	L2+R2	L1+R1
ISA Slot					L1+R1
PSU Type	ATX/AT	AT	ATX	ATX/AT	ATX
Chassis	RACK-1150G	RACK-220G	RACK-220G	RACK-220G	RACK-220G

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Industrial Computing

Industrial Motherboard ATX Motherboard



Model	I-IMBA-Q370	I-IMBA-C2360-i2	I-IMBA-Q170-i2	I-IMBA-H110	I-IMBA-BDE
CPU Socket	LGA1151	LGA1151	LGA1151	LGA1151	On board
CPU Type	8th generation Intel Core™ i7/5/i3/Pentium and Celeron processor	Intel Xeon E3, Core™ i3, Pentium, Celeron processor	6th generation Intel Core™ i7/5/i3 Pentium and Celeron processor	6th generation Intel Core™ i7/5/i3, Celeron and Pentium processor	Intel Xeon processor D-1500 product family
Chipset	Intel Q370	Intel C236	Intel Q170	Intel H110	Intel Xeon processor D-1500 product family
Memory	Four 288-pin 2133 MHz dual-channel DDR4 SDRAM unbuffered DIMMs (systemMax. 64 GB)	Four 288-pin 2133 MHz dual-channel DDR4 SDRAM unbuffered DIMMs (system Max. 64 GB)	Four 288-pin 2133 MHz dual-channel DDR4 SDRAM unbuffered DIMMs (system Max. 64 GB)	Two 288-pin 2133 MHz dual-channel DDR4 SDRAM unbuffered DIMMs (system Max. 64 GB)	Four 288-pin 2133 MHz dual-channel DDR4 SDRAM unbuffered DIMMs (system max. 128 GB)
Display Interface	Triple independent display support 1 x HDMI 2.0 1 x DVI-I 1 x iDP interface	Triple independent display support 1 x HDMI 2.0 1 x DVI-D 1 x VGA 1 x iDP interface	Triple independent display support 1 x HDMI 2.0 1 x DVI-D 1 x VGA 1 x iDP interface	Dual independent display support 1 x DVI-I 1 x HDMI 1 x iDP interface	VGA via AST2510
Ethernet	LAN1: Intel I210-AT PCIe controller with NCSI support LAN2: Intel I219LM with Intel AMT 11.0 support	LAN1: Intel I219LM with Intel AMT 11.0 support LAN2: Intel I210-AT PCIe controller with NCSI support	LAN1: Intel I219LM with Intel AMT 11.0 support LAN2: Intel I210-AT PCIe controller with NCSI support	LAN1: Intel I219V PHY LAN2: Intel I211 PCIe Controller	LAN1: Intel I211-AT PCIe controller LAN2: Intel I210-AT PCIe controller LAN3&4: Inphi CS4227 PHY (optional)
iRIS Remote Management Module	N/A	1 x iRIS-2400 slot	1 x iRIS-2400 slot	N/A	N/A
I/O Interface	1 x PS/2 KB/MS 1 x LPT 2 x RS-232/422/485 4 x RS-232 4 x USB 2.0 8 x USB 3.1 Gen 1 (5Gb/s)	1 x KB/MS 1 x LPT 2 x RS-232/422/485 4 x RS-232 5 x USB 3.1 Gen 1 (5Gb/s) 7 x USB 2.0	1 x KB/MS 1 x LPT 2 x RS-232/422/485 4 x RS-232 5 x USB 3.1 Gen 1 (5Gb/s) 7 x USB 2.0	1 x KB/MS 1 x LPT 2 x RS-232/422/485 4 x RS-232 4 x USB 3.1 Gen 1 (5Gb/s) 5 x USB 2.0	1 x PS/2 for KM/MS 1 x RS-232/422/485 1 x USB 2.0 Type A 4 x USB 3.1 Gen 1 (5Gb/s) 5 x RS-232 6 x USB 2.0
Storage Interface	6 x SATA 6Gb/s (RAID 0/1/5/10 supported)	6 x SATA 6Gb/s (RAID 0/1/5/10 supported)	6 x SATA 6Gb/s (RAID 0/1/5/10 supported)	4 x SATA 6Gb/s	6 x SATA 6Gb/s
Audio	Realtek ALC662 HD Audio codec				
Digital I/O	8-bit programmable digital I/O		8-bit programmable I/O (8-bit GPIO is for programming I/O)		
Power Consumption	3.3V@1.65A, 5V@3.4A, 12V@8.58A, 5VSV@3.4A (Intel Core i7-8700K up to 4.60 GHz CPU with 32GB 2600MHz DDR4 memory)	3.3V@1.51A, 5V@3.31A, 12V@9.02A, 5VSV@3.7A (Intel Xeon E3-1275 v5 3.60 GHz CPU with 32 GB (four 8GB) 2133 MHz DDR4 memory)	3.3V@1.65A, 5V@3.4A, 12V@8.58A, 5VSV@3.4A (Intel Core™ i7 6700K 4.0GHz CPU with 32 GB (Four 8 GB) 2133 MHz DDR4 memory)	3.3V@1.53A, 5V@2.95A, 12V@8.38A, 5VSV@3.2A (Intel Core™ i7 6700K 4.0GHz CPU with 16GB (two 8GB) 2133 MHz DDR4 memory)	3.3V@0.11A, 5V@2.83A, 12V@3.97A (Intel Xeon D-1548 2.0GHz CPU with 32GB (four 4 GB) 2133MHz DDR4 memory)
Watchdog Timer	Software programmable and supports 1~255 sec. system reset				
Operation Environment	Temperature Range: -20°C ~ 60°C Relative Humidity: 5% ~ 95%, non-condensing				0°C ~ 60°C 10% ~ 95%, non-condensing
Expansion Slot	1 x Full-size PCIe Mini card slot (support mSATA) 1 x M.2 (A key) 1 x M.2 (M Key) 1 x PCIe x16(Gen3) (share x16 signal with 1 x8 & 1 x4 slot) 1 x PCIe x8 (Gen3) 2 x PCIe x4 (Gen3) 2 x PCI slot	1 x Full-size PCIe Mini card slot (support mSATA) 2 x PCIe x8 (Gen3) 3 x PCIe x4 (Gen3) 2 x PCI slot	1 x Full-size PCIe Mini card slot (support mSATA) 2 x PCIe x8 (Gen3) 3 x PCIe x4 (Gen3) 2 x PCI slot	1 x Full-size PCIe Mini card slot (support mSATA) 1 x PCIe x16 slot (Gen3) 6 x PCI slot	1 x M.2 connector (M key) 1 x PCIe x4 slot (for 10GbE LAN card only) 5 x PCIe x4 Gen3 1 x PCIe x4 Gen2
CPU Cooler	CF-115XA-R10 CF-1156C-R20 CF-1156D-R20 CF-115XE-R10	CF-115XA-R10 CF-1156C-R20 CF-1156D-R20 CF-115XE-R10	CF-115XA-R10 CF-1156C-R20 CF-1156D-R20 CF-115XE-R10	CF-115XA-R10 CF-1156C-R20 CF-1156D-R20 CF-115XE-R10	XCF-989A-RS-R12

Industrial Computing

Industrial Motherboard Micro ATX Motherboard



Model	I-IMB-H110	I-IMB-Q870-i2	I-IMB-H810-i2-R11	I-IMB-H610
CPU Socket	LGA1151	LGA1150	LGA1150	LGA1155
CPU Type	6th generation Intel Core™ i7/i5/i3, Celeron and Pentium processor	Intel Core™ i7/i5/i3, Pentium, Celeron processor	Intel Core™ i7/i5/i3, Pentium, Celeron processor	Intel Core™ i7/i5/i3, Pentium, Celeron processor
Chipset	Intel H110	Intel Q87	Intel H81	Intel H61
Memory	Two 288-pin 2133MHz Dual-Channel DDR4 SDRAM Unbuffered DIMM supported up to 64GB	Four 240-pin 1600/1333 MHz dual-channel DDR3 & DDR3L SDRAM unbuffered DIMMs (system max. 32 GB)	Two 240-pin 1600/1333 MHz dual-channel DDR3 & DDR3L SDRAM unbuffered DIMMs (system max. 32 GB)	Two 240-pin 1333/1066 MHz dual-channel DDR3 SDRAM unbuffered DIMM supported (system max. 16 GB)
Display Interface	Dual independent display support 1 x VGA 1 x DVI-I 1 x LVDS 1 x iDP	Triple display supported 1 x VGA 1 x DVI-D 1 x HDMI 1 x iDP interface	Triple display supported 1 x VGA1 1 x VGA2 1 x iDP interface	Dual display supported 1 x VGA (up to 2048x1536@75Hz) 1 x DVI-D (up to 1920x1200@60Hz)
Ethernet	Dual LAN: RTL 8111GN controller	LAN1: Intel I217LM with Intel AMT 9.0 support LAN2: Intel I210-AT PCIe controller with NCSI support	LAN1: Intel I217LM LAN2: Intel I210-AT PCIe controller with NCSI support	LAN1: Realtek RTL8111E PCIe GbE controller with ASF 2.0 support LAN2: Realtek RTL8111E PCIe GbE controller
iRIS Remote Management Module	N/A	1 x iRIS-2400 slot		N/A
I/O Interface	1 x KB/MS 1 x LPT 2 x RS-232/422/485 4 x USB 3.1 Gen 1 8 x USB 2.0 10 x RS-232	1 x PS/2 for KB/MS 1 x RS-422/485 4 x USB 3.1 Gen 1 5 x RS-232 8 x USB 2.0	1 x LPT 1 x PS/2 for KB/MS 1 x RS-422/485 by s/w selection 2 x RS-232 2 x USB 3.1 Gen 1 8 x RS-232 10 x USB 2.0	1 x I ² C 1 x PS/2 KB/MS 1 x RS-422/485 1 x SMBus 1 x TPM (2x10 pin) 5 x RS-232 (for IMB-H610A/H612A) 9 x RS-232 (for IMB-H610B/H612B) 10 x USB 2.0
Storage Interface	4 x SATA 6Gb/s (RAID 0/1 supported)	4 x SATA 6Gb/s (RAID 0/1/5/10 supported)	2 x SATA 6Gb/s 2 x SATA 3Gb/s (AHCI supported)	4 x SATA 3Gb/s
Audio	Realtek ALC662 HD Audio codec			
Digital I/O	8-bit programmable digital I/O	8-bit programmable I/O (8-bit GPIO is for programming I/O)	N/A	8-bit digital I/O (4-bit input/4-bit output)
Power Consumption	3.3V@ 0.93A, 5V@2.99A, 12V@6.88A, 5VSB@0.02A (Intel Core™ i7-6700K 4.0GHz CPU with 16GB (two 8GB) 2133 MHz DDR4 memory)	3.3V@0.53A, 5V@4.96A, 12V@0.12A, Vcore_12V@3.95A, 5VSB@0.18A (Intel Core™ i7-4770K 3.90 GHz CPU with 16 GB four 1333 MHz 4 GB DDR3 memory)	3.3V@0.64A, 5V@4.20A, 12V@0.14A, Vcore_12V@3.88A, 5VSB@0.20A (Intel Core™ i7-4770K 3.90 GHz CPU with 8 GB two 1333 MHz 4 GB DDR3 memory)	3.3V@1.75A, 5V@6.61A, Vcore@3.68A, 12V@0.09A, 5sb@0.12A (Intel 2.60GHz CPU with four 1333 MHz 4 GB DDR3 memory)
Watchdog Timer	Software programmable and supports 1~255 sec. system reset			
Operation Environment	Temperature Range: -20°C ~ 60°C Relative Humidity: 5% ~ 95% non-condensing			Temperature Range: -10°C ~ 60°C Relative Humidity: 5% ~ 95%, non-condensing
Expansion Slot	1 x PCIe x16 slot (Gen3) 1 x Full-size PCIe Mini card slot 1 x PCIe x1 slot (Gen2) 2 x PCI slot	1 x PCIe x16 slot (Gen 3) 1 x PCIe x4 slot 1 x PCIe x1 slot 1 x PCI slot	1 x PCIe x16 slot (Gen 3) 1 x PCIe x1 slot 2 x PCI slot	1 x PCIe x 16 3 x PCIe x 1
CPU Cooler	CF-115XA-R10 CF-115XE-R10	CF-115XA-R10 CF-115XE-R10		CF-115XA-R10 (for 1U chassis) CF-1156C-R20 CF-1156D-R20 CF-115XE-R10

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Industrial Computing

Industrial Motherboard Mini ITX Motherboard

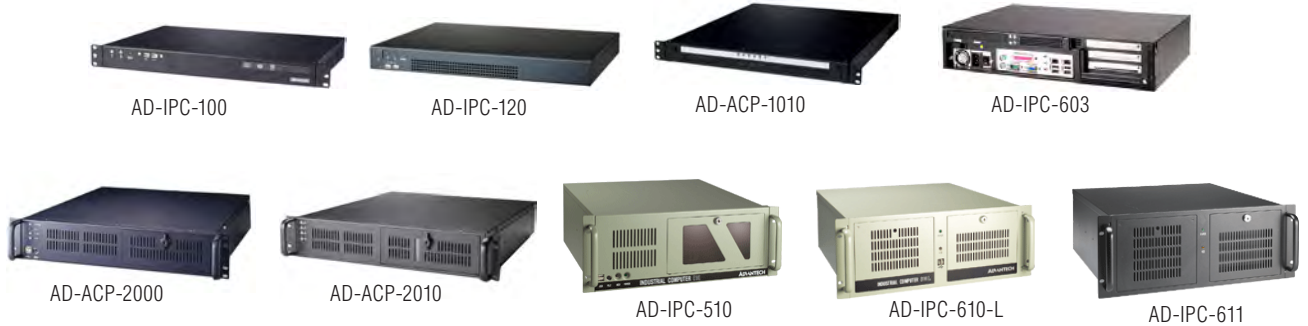


Model	I-KINO-DH310	I-tKINO-AL	I-gKINO-DMF	I-tKINO-ULT3	I-KINO-DCM236
CPU Socket	LGA1151	On Board	On Board	On Board	On Board
CPU Type	8th gen Intel Core™ i7/ i5/i3 Pentium and Celeron processor	Intel Atom™/Celeron/ Pentium on-board SoC	AMD G-series on board SoC Merlin Falcon	Intel Core™ i7/i5/i3, Celeron ULT processor	Intel Xeon E3, Core™ i3, Celeron process
Chipset	Intel H310	Intel Atom™/Celeron/ Pentium on-board SoC	AMD G-series on board SoC Merlin Falcon	Intel Core™ i7/i5/i3, Celeron ULT processor	Intel CM236
Memory	2 x 260-pin 2666/2400 MHz dual-channel DDR4 SDRAM SO-DIMMs (system Max. 64 GB)	2 x 204-pin 1866/1600 MHz single-channel DDR3L SO-DIMM (system max. 8 GB)	2 x SO-DIMM DDR4 2400MHz up to 64GB	2 x SO-DIMM DDR4 2133MHz, system maximum up to 32GB	2 x SO-DIMM DDR4 2133MHz up to 32GB with ECC support
Display Interface	Dual independent display 2 x HDMI 1 x iDP interface	Triple independent display 2 x DP++ 1 x eDP	Triple independent display 1 x HDMI 2.0 1 x HDMI 1.4 1 x DP++	Triple independent display 1 x HDMI/DP 1 x HDMI 1 x LVDS/eDP	Triple independent display 1 x HDMI 2.0 2 x HDMI 1.4 1 x LVDS
Ethernet	Dual LAN: RTL8111H	Dual LAN: RTL8111	Dual LAN: RTL8111GN	LAN1: Intel I219LM LAN2: Intel I211AT	LAN1: Intel I219LM LAN2: Intel I211
iRIS Remote Management Module	N/A				
I/O Interface	1 x KB/MS 1 x RS-422/485 3 x RS-232, 4 x USB 3.1 Gen 1 4 x USB 2.0	1 x PS/2 KB/MS 2 x RS-232/422/485 2 x USB 2.0 4 x RS-232 4 x USB 3.1 Gen 1	2 x RS-232/422/485 4 x RS-232 (2 support cctalk, TTL) 4 x USB 3.1 Gen 1 5 x USB 2.0	2 x RS-232/422/485 4 x RS-232 4 x USB 2.0 4 x USB 3.1 Gen 1	1 x KB/MS 2 x RS-232/422/485 4 x RS-232 4 x USB 2.0 4 x USB 3.1 Gen 1
Storage Interface	2 x SATA 6G/s	2 x SATA 6Gb/s with 12/5V SATA power connector 1 x M.2 (B Key) (2242)(SATA port1 + USB 2.0 signal) 1 x Micro SD slot (Optional)	2 x SATA 6Gb/s with 5V/12V SATA power connector 1 x MicroSD slot 1 x M.2 (B key) (SATA signal)	2 x SATA 6Gb/s with 5V SATA power connector 1 x eMMC5.0 (up to 32G, optional)	4 x SATA6Gb/s 1 x mSATA
Audio	Realtek ALC662 HD codec	Realtek ALC269 HD Audio codec	Realtek ALC662 HD Audio Codec		
Digital I/O	8-bit digital I/O	8-bit programmable digital I/O			
Power Consumption	12V@11.32A (Intel Core™ i7-8700 up to 4.60 GHz CPU with two 8GB 2666MHz DDR4 memory)	12V@2.58A (Intel Pentium N4200 CPU with two 8GB 1600MHz DDR3L memory)	12V@5.54A (AMD RX-421BD 2.1GHz CPU with 2400 MHz 16GB DDR4 memory)	12V@4.68A (Intel Core™ i7-6600U up to 3.4GHz CPU with 16GB (8GB x 2) DDR4-2133 memory running in 3.2GHz)	12V@6.93A (Intel Xeon E3-1505M V5 2.8GHz CPU with 32 GB (two 16 GB) 2133 MHz DDR4 memory)
Watchdog Timer	Software programmable and supports 1~255 sec. system reset				
Operation Environment	Temperature Range: -10°C ~ 70°C Relative Humidity: 5% ~ 95% non-condensing	Temperature Range: -20°C ~ 70°C Relative Humidity: 5% ~ 95% non-condensing	Temperature Range: -20°C ~ 60°C Relative Humidity: 5% ~ 95% non-condensing		
Expansion Slot	1 x PCIe x16 1 x M.2 M key (2280, Gen2 PCIe x2 only) 1 x M.2 A Key (2230, PCIe x1 & USB 2.0)	1 x PCIe x1 slot 1 x Full/Half-size PCIe Mini card (w/ SIM holder)	1 x PCIe x8 slot 1 x Full-size PCIe Mini card 1 x MicroSD slot	1 x PCIe x4 slot 1 x Full-size PCIe Mini card (support mSATA, colay with SATA2) 1 x Full-size PCIe Mini card (with SIM card slot)	1 x PCIe x16 slot 1 x Full-size PCIe Mini card (support mSATA) 1 x Half-size PCIe Mini card 1 x M.2 2230 (A key)
CPU Cooler	CF-1156C-R20 CF-1156D-R20 CF-115XE-R10	Heatsink	Cooler	Heatsink	Heatsink

Industrial Computing

Industrial Chassis

- Rackmount Chassis offers a comprehensive range of rackmount chassis from 1U to 7U.
- Desktop/Wallmount Chassis supports PICMG1.0/1.3, ATX, microATX, and mini-ITX motherboards to fulfill different space-sensitive industrial applications and compact embedded chassis needs.



Model	1U Rackmount			2U Rackmount			4U Rackmount		
	AD-IPC-100	AD-IPC-120	AD-ACP-1010	AD-IPC-603	AD-ACP-2000/ IPC-602	AD-ACP-2010/ ACP-2320	AD-IPC-510	AD-IPC-610-L	AD-IPC-611
Form Factor Support	Mini ITX	PICMG 1.3 Half-size SBC	PICMG 1.0/1.3 Full-Size SBC ATX/MicroATX	ATX/MicroATX	PICMG 1.0/1.3 Full-Size SBC	ATX/ MicroATX	PICMG1.0/1.3 Full size SBC ATX/Micro-ATX	PICMG1.0/1.3 Full size SBC ATX/Micro-ATX	PICMG1.0/1.3 Full size SBC ATX/Micro-ATX
Drive Bay	Slim Optical Drive	1	-	1	1	1/-	- /1	-	-
	2.5"	-	2 (Internal)	1 x 3.5" or 2 x 2.5"	-	-	-	-	-
	Hot-swap	-	-	-	-	-	- /2 (SAS/SATA)	-	-
	3.5" External	-	-	1	-	2 /1	1/-	1	1
	Internal	1	-	1 x 3.5" or 2 x 2.5"	1	- /1	2	-	-
5.25"	-	-	-	-	- /1	1/-	3	3	3
Front I/O	USB	8	2	2	0	2	2	2	2
	PS/2	-	-	-	-	1	1	1	-
Cooling	No. of Fans	-	1	2 (MB), 4 (BP)	2	2	2 /3	1	1
	CFM	-	6.5	2 x 24 (MB) / 3 x 24 + 1 x 15 (BP)	47	2 x 47/ 2 x 40	2 x 47/ 2 x 47 + 1 x 28	77	85
Power Supply	AC	60W power board	250W Flex ATX 300W Flex ATX	250W Flex ATX 300W Flex ATX	350W Flex ATX	250W PS/2 300W PS/2 400W PS/2 500W PS/2	250W Flex ATX 300W Flex ATX	250W PS/2 300W PS/2 400W PS/2	250W PS/2 300W PS/2
	AC Redundant	-	-	-	-	300W 1+1 RPS /-	250W 1+1	-	350W Mini RPS 500W Mini RPS
	DC	-	-	-	-	300W 48V	-	-	-
No. of Slots	1	3	MB: 1, BP: 3	3	6 /6	3 /3	15	15	15
No. of Full-size Cards	0	0	MB: 1, BP: 0	0	4 /4	3 /3	8	15	15
Passive Backplane Options	PICMG 1.0	-	Yes	Yes	-	Yes	-	Yes	Yes
	PICMG 1.3	-	-	Yes	-	Yes	-	Yes	Yes
Intelligent System Module	-	-	-	-	Yes	Yes	-	-	-
Dimensions (W x H x D)	mm	480 x 44 x 288	480 x 44 x 300	480 x 44 x 497	482 x 88 x 308	482 x 88 x 451	482 x 88 x 480	482 x 177 x 446	482 x 177 x 480
	inch	19 x 1.7 x 11.4	19 x 1.7 x 11.8	19 x 1.7 x 19.6	19 x 3.46 x 12.1	19 x 3.5 x 17.8	19 x 3.5 x 18.9	19 x 7 x 17.6	19 x 7 x 18.9
Weight	kg	3.6	3.1	8	6.4	11.5/11.3	10.7/11.7	10.7	14.5

- 1 Industrial Computing
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- 4 Panel PC/ Display
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- 6 IoT Connectivity
- 7 Industrial Communication
- 8 Remote I/O & Wireless I/O Module
- 9 Industrial RFID

Industrial Computing

Industrial Chassis



AD-IPC-610-H



AD-IPC-610-F



AD-IPC-619



AD-ACP-4020



AD-ACP-4D00



AD-ACP-4000



AD-ACP-4010/ ACP-4320



AD-ACP-4340



AD-ACP-4360

Model		4U Rackmount								
		AD-IPC-610-H	AD-IPC-610-F	AD-IPC-619	AD-ACP-4020	AD-ACP-4D00	AD-ACP-4000	AD-ACP-4010/ ACP-4320	AD-ACP-4340	AD-ACP-4360
Form Factor Support		PICMG1.0/1.3 Full size SBC ATX/Micro-ATX	PICMG1.0/1.3 Full size SBC ATX/Micro-ATX	PICMG 1.0/1.3 Fill-size SBC	PICMG1.0/1.3 Full-size SBC ATX/Micro-ATX	PICMG 1.3/PCI Half-sized SBC	PICMG1.0/1.3 Full-size SBC ATX/Micro-ATX	PICMG1.0/1.3 Full-size SBC ATX/Micro-ATX	PICMG1.0/1.3 Full size SBC ATX/Micro-ATX	PICMG1.0/1.3 Full size SBC ATX/Micro-ATX
Drive Bay	Slim Optical Drive	-	-	-	1	-	-	-	1	1
	2.5"	-	-	-	1 (Internal)	-	-	-	1 (Internal)	-
	Hot-swap	-	-	-	-	-	-	- / 2 (SAS/SATA)	4 (SAS/SATA)	6 (SAS/SATA)
	3.5" External	1	1	1	2	1 / each node	1	1 / -	-	1
	Internal	-	1	-	-	-	-	1 / -	-	-
5.25"	3	3	2	-	-	3	2	-	-	
Front I/O	USB	2	2	2	2 (USB 3.0)	2 (USB 2.0) + 2 (USB 3.0) / each node	2	4	2 (USB 3.0)	2
	PS/2	1	1	-	-	-	1	-	-	-
Cooling	No. of Fans	2	1	1	2	1 / each node	2	2 / 2	2	3
	CFM	85	85	85	2 x 53	1 x 58 per node	2 x 85	2 x 85/ 1 x 114 + 1 x 28	1 x 74 + 1 x 56	1 x 114 + 2 x 47
Power Supply	AC	300W PS/2 400W PS/2	300W PS/2 400W PS/2	250W PS/2 300W PS/2 400W PS/2	300W PS/2 400W PS/2 500W PS/2	250W Flex ATX 300W Flex ATX	300W PS/2 400W PS/2 500W PS/2	300W PS/2 400W PS/2 500W PS/2	400W PS/2 500W PS/2 700W PS/2	400W PS/2 500W PS/2 700W PS/2
	AC Redundant	350W Mini RPS 500W Mini RPS	350W Mini RPS 500W Mini RPS	-	-	-	350W Mini RPS 500W Mini RPS	350W Mini RPS 500W Mini RPS 750W Mini RPS	350W Mini RPS 500W Mini RPS	350W Mini RPS 500W Mini RPS
	DC	300W 48V	300W 48V	-	300W 48V	-	300W 48V	-	-	-
No. of Slots		15	15	14	15	6 / each node	15	15 / 15	15	15
No. of Full-size Cards		15	15	0	0	0	11	15 / 10	15	15
Passive Backplane Options	PICMG 1.0	Yes	Yes	Yes	Yes	Yes (PCI BP only)	Yes	Yes	Yes	Yes
	PICMG 1.3	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Intelligent System Module		-	-	-	Yes	Yes	Yes	Yes	Yes	Yes
Dimensions (W x H x D)	mm	482 x 177 x 479	482 x 177 x 499 (MB) 482 x 177 x 449 (BP)	482 x 177 x 430	482 x 177 x 348	430 x 177 x 350	482 x 177 x 479	482 x 177 x 479	482 x 177 x 478	482 x 177 x 501
	inch	19 x 7 x 18.9	19 x 7 x 19.6 (MB) 19 x 7 x 17.8 (BP)	19 x 7 x 16.9	19 x 7.0 x 13.7	19 x 7.0 x 13.8	19 x 7 x 18.9	19 x 7 x 18.9	19 x 7.0 x 18.8	19 x 7.0 x 19.8
Weight	kg	15	16.2	15	8.5	15	15.2	16.6/17.6	12.5	19

Industrial Computing

Industrial Chassis



AD-IPC-6806S



AD-IPC-6806



AD-IPC-6806W



AD-IPC-6606



AD-IPC-6608



AD-IPC-7132



AD-IPC-6025



AD-IPC-5122



AD-IPC-7130



AD-IPC-7130L



AD-IPC-7220

Model		AD-IPC-6806S	AD-IPC-6806/ 6806W	AD-IPC-6606/ 6608	AD-IPC-7132	AD-IPC-6025	AD-IPC-5122	AD-IPC-7130	AD-IPC-7130L	AD-IPC-7220	
Form Factor Support		PICMG 1.0/1.3 Half-size SBC	PICMG 1.0 Full-size SBC or PICMG 1.0/1.3 Full-size SBC	PICMG 1.0/1.3 Full-size SBC	PICMG 1.3 Full-size SBC/ ATX / Micro ATX	PICMG 1.0/1.3 Full-size SBC	Micro ATX	ATX / Micro ATX	ATX / Micro ATX	ATX / Micro ATX	
Drive Bay	Slim Optical Drive	-	-	-	-	-	1	-	-	-	
	2.5"	-	-	-	-	-	-	-	-	-	
	3.5"	Hot-swap	-	-	-	-	-	-	-	-	-
		External	1	1/1	1/1	1	1	1	2	2	1
	Internal	1	1/1	1/-	2	1	1	1	1	1	
5.25"	-	0/1	1/2	1	-	-	1	1	2		
Front I/O	USB	2	2/2	2/2	2	2	2	2	2	2	
	PS/2	-	-/-	-/-	-	-	-	-	-	-	
Cooling	No. of Fans	1	1/1	1/1	1	1	1	1+1	1+1	1	
	CFM	53	53/58	53/85	85	46.6	85	73.8+21.2	73.8+21.2	85	
Power Supply	AC	250W Flex ATX	250W Flex ATX 350W Flex ATX	250W PS/2 300W PS/2	300W PS/2 400W PS/2	270W Flex ATX	300W PS/2 400W PS/2	300W PS/2 400W PS/2	300W PS/2 400W PS/2	300W PS/2 400W PS/2	
	AC Redundant	-	-	-	-	-	-	350W Mini RPS 500W Mini RPS	350W Mini RPS 500W Mini RPS	350W Mini RPS 500W Mini RPS	
	DC	-	-	-	-	-	-	-	-	-	
No. of Slots		4	5/5	5/7	9	4	4	7	7	7	
No. of Full-size Cards		-	6/6	6/8	10	5/5	-	7	7	7	
Passive Backplane Options	PICMG 1.0	Yes	Yes	Yes	-	Yes	-	-	-	-	
	PICMG 1.3	Yes	Yes	Yes	Yes	Yes	-	-	-	-	
Intelligent System Module		-	-	-	-	Yes	Yes	Yes	-	Yes	
Dimensions (W x H x D)	mm	191 x 178 x 290	166 x 178 x 398/ 198 x 221 x 398	173 x 254 x 396/ 173 x 315 x 410	200 x 330 x 430	111 x 212 x 420	157 x 360 x 340	200 x 320 x 480	200 x 320 x 480	200 x 320 x 480	
	inch	7.5 x 7.0 x 11.4	6.6 x 7.0 x 15.7/ 7.8 x 8.7 x 15.7	6.8 x 10 x 15.6/ 6.8 x 12.4 x 16.1	7.9 x 13 x 16.9	4.4 x 8.3 x 16.5	6.2 x 14.2 x 13.4	7.9 x 12.6 x 18.9	7.9 x 12.6 x 18.9	7.9 x 12.6 x 18.9	
Weight	kg	5.6	6.3/8	9/11	9.96	4.7	6.5	12.8	11.11	14	

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Industrial Computing

Industrial Power Supply

Power Supply, including power adapter, ATX power supply, redundant power supply, PS/2 power supply, and small form power supply. These power supplies stabilize electric current and optimize power efficiency, which increases system life. ATX, PS/2 power supply and redundant power supply are compatible with industrial boards and chassis, supporting a full range of rackmount and wallmount industrial systems, and carrying UL, CB, CCC, TUV, and RoHS certification.

Open Frame

Fanless Chassis



1U Series

1U Chassis



2U Series

1U ~ 2U Chassis



PS2 Series

2U ~ 4U Chassis



Redundant

2U ~ 4U Chassis



Adapter

- LCD Monitor/ Panel PC
- Embedded System



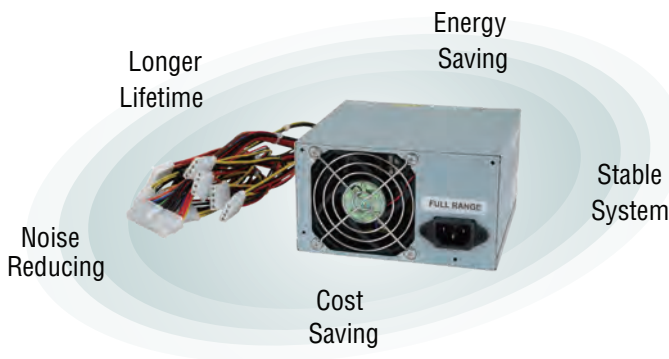
DC to DC Module

- Battery Backup System
- Embedded System
- Mobile Auto Solution



80 PLUS

80 Plus system is set up to rate the efficiency of power supplies. Every power supply certified by the 80 Plus standard is at least 80% efficient at 20-, 50-, and 100% of load, hence the name. In addition to the minimum 80% efficiency, they need to show a power factor of at least 0.9 at 50% load.



Efficiency Trend

Multiple output for computers and servers Eff. \geq 80% at 20%, 50% and 100% of rated load PFC \geq 0.9

	80 PLUS	80 PLUS BRONZE	80 PLUS SILVER	80 PLUS GOLD
20% (loading)	80%	82%	85%	87%
50% (loading)	80%	85%	88%	87%
100% (loading)	80%	82%	85%	87%

- **Energy Saving**
A high efficiency power supply saves energy by reducing the amount of energy used during the current transferring process.
- **System Reliability**
Reducing the heat output helps to lower the system temperature and increase system reliability.
- **Cost Saving**
A high efficiency power supply reduces energy consumption, which means savings on your electric bills.
- **Noise Reducing**
A high efficiency power supply can achieve a lower operating temperature. When the fan operates at a lower speed, it produces less noise.
- **Longer Lifetime**
A high efficiency power supply can reduce heat generated inside the power supply and increase its operating hours.



2

Industrial Server & Storage

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Industrial Server & Storage

Industrial Serverboard

Industrial server is designed for industrial environments and critical applications. The portfolio features multi-core processors based on Intel Xeon technology, ECC DDR4 Memory, Hot-Swap drive bays, and Intelligent Platform Management Interface (IPMI), which are essential for performance-demanding applications.



Model		AD-ASMB-913	AD-ASMB-923	AD-ASMB-925	AD-ASMB-975	AD-ASMB-935
Form Factor		EATX	EATX	EATX	Proprietary	EATX
Processor System	CPU	Intel Xeon E5-2600 v3/v4 Series	Intel Xeon E5-2600 v3/v4 Series	Intel Xeon Scalable Series	Intel Xeon Scalable Series	Intel Xeon Scalable Series
	Socket	2 x socket 2011-R3	2 x socket 2011-R3	2 x socket 3647-P0	2 x socket 3647-P0	2 x socket 3647-P0
	Max. Speed	2.5 GHz	2.5 GHz	3.6 GHz	3.6 GHz	3.6 GHz
	Front Side Bus	QPI 9.6GT/s	QPI 9.6GT/s	Up to UPI 10.4 GT/s	Up to UPI 10.4 GT/s	Up to UPI 10.4 GT/s
	L3 Cache	30 MB	30 MB	38.5 MB	38.5 MB	38.5 MB
	Chipset	Intel C612	Intel C612	Intel C620	Intel C620	Intel C620
	BIOS	AMI 128 Mbit, SPI	AMI 128 Mbit, SPI	AMI 256 Mbit, SPI	AMI 256 Mbit, SPI	AMI 256 Mbit, SPI
Expansion Slot	PCI	-	-	1	-	-
	PCIe x16	4 (1 for PME)	4	5	4	5
	PCIe x8	-	2	1	1	1
	PCIe x4	-	1	-	4	-
	PCIe x1	-	-	-	-	-
Memory	Technology	DDR4 REG 2400/2133/1866/1600/1333 MHz DIMM	DDR4 REG 2400/2133/1866/1600/1333 MHz DIMM	DDR4 REG 2666/2400/2133 MHz DIMM	DDR4 REG 2666/2400/2133 MHz DIMM	DDR4 REG 2666/2400/2133 MHz DIMM
	Max. Capacity	512 GB REG DIMM	256 GB REG DIMM	384 GB REG DIMM	384 GB REG DIMM	768 GB REG DIMM
	Socket	16 x 288-pin DIMM	8 x 288-pin DIMM	12 x 288-pin DIMM	12 x 288-pin DIMM	24 x 288-pin DIMM
Graphics	Controller	AST1400/AST2400	AST1400/AST2400	AST2510/AST2500	AST2510/AST2500	AST2510/AST2500
	VRAM	DDR3 64MB	DDR3 64MB	DDR3 64MB	DDR3 64MB	DDR3 64MB
	LCD	-	-	-	-	-
	TV-Out	-	-	-	-	-
	HDMI	-	-	-	-	-
	DVI	-	-	-	-	-
	Dual Display	-	-	-	-	-
Ethernet	Interface	10/100/1000 Mbps Gigabit Ethernet	10/100/1000 Mbps Gigabit Ethernet	10/100/1000 Mbps Gigabit & 10GBase-T Ethernet	10/100/1000 Mbps Gigabit & 10GBase-T Ethernet	10/100/1000 Mbps Gigabit & 10GBase-T Ethernet
	Controller	4 x Intel I210AT	2 x Intel I210AT	2 x Intel I210AT + 1 x Intel X557-AT2	2 x Intel I210A T + 1 x Intel X557-AT2	2 x Intel I210AT + 1 x Intel X557-AT2
	Connector	RJ-45 x 4 (1 sharing IPMI function)	RJ-45 x 3 (1 sharing IPMI function)	RJ-45 x 4 (1 sharing IPMI function)	RJ-45 x 4 (1 sharing IPMI function)	RJ-45 x 4 (1 sharing IPMI function)
TPM		△	△	△	△	△
SATA	Max. Data Transfer Rate	600MB/s for SATA3	600MB/s for SATA3	600MB/s for SATA3	600MB/s for SATA3	600MB/s for SATA3
	Channel	8 for SATA3	10 for SATA3	8 for SATA3	14 for SATA3	10 for SATA3
SAS	Max. Data Transfer Rate	-	-	-	-	-
	Channel	-	-	-	-	-
Rear I/O	VGA/DVI/HDMI/DP	1 / - / - / -	1 / - / - / -	1 / - / - / -	1 / - / - / -	1 / - / - / -
	Ethernet	4	2	4 (T2 SKU)	4 (T2 SKU)	4 (T2 SKU)
	USB	2 (USB 3.0)	2 (USB 3.0), 2 (USB 2.0)	4 (USB 3.0)	4 (USB 3.0)	4 (USB 3.0)
	Audio	-	-	-	-	-
	Parallel	-	-	-	-	-
	Serial	1 (RS-232)	1 (RS-232)	1 (RS-232)	1 (RS-232)	1 (RS-232)
	PS/2	-	2	-	-	-
Internal Connector	DVI	-	-	-	-	-
	USB	7 (4 USB3.0, 2 USB2.0, 1 USB 2.0 Type-A)	7 (2 USB3.0, 4 USB2.0, 1 USB 2.0 Type-A)	7 (2 USB3.0, 4 USB2.0, 1 USB 2.0 Type-A)	11 (8 USB3.0, 2 USB2.0, 1 USB 2.0 Type-A)	7 (2 USB3.0, 4 USB2.0, 1 USB 2.0 Type-A)
	Audio	1	1	1	1	1
	Serial	1	1	1	1	1
	Parallel	-	-	-	-	-
	SATA	8	10	8	12	10
	SAS	-	-	-	-	-
	M.2	-	-	-	2 x M.2 2280 (SATA)	1 x M.2 2280 (SATA & PCIe)
	Compact Flash	-	-	-	-	-
GPIO	8 bit GPIO	8 bit GPIO	8 bit GPIO	8 bit GPIO	8 bit GPIO	
Watchdog Timer	Output	System reset	System reset	System reset	System reset	System reset
	Interval	Programmable, 1 ~ 255 sec	Programmable, 1 ~ 255 sec	Programmable, 1 ~ 255 sec	Programmable, 1 ~ 255 sec	Programmable, 1 ~ 255 sec

✓: supported, -: not supported, △: optional

Industrial Server & Storage

GPU Server

Industrial 1U to 4U GPU server features the latest multi-core computing technology. By offloading dense and complicated application code to the CPU, the GPU's massively parallel architecture can be leveraged to perform multiple tasks simultaneously.



Model		AD-SKY-6100		AD-SKY-6200		AD-SKY-6400	
Processor Support		Intel LGA3647-P0 Xeon Scalable processor (up to 140W TDP)		Intel LGA3647-P0 Xeon Scalable processor (up to 140W TDP)		Intel LGA3647-P0 Xeon Scalable processor (up to 205W TDP)	
Expansion Slots		5 x PCIe x16 slot (Gen3 x16 link) for five HH/HL cards or one FH/FL + one FH/HL card		Four PCIe x16 slot (Gen3 x16 link) for 4 x/10.5" + one PCIe x8 slot (Gen3 x8 link) for FH/HL card		4 x PCIe x16 slot (Gen3 x16 link) for FH/10.5" double-deck cards + one PCIe x8 slot (Gen3 x8 link) for FH/HL card + one PCIe x4 slot (Gen3 x4 link) for FH/HL card	
Drive Bay	Slim ODD Bay	0		1		-	
	2.5" Hot Swap	2		8		-	
	2.5" Internal	-		-		-	
	3.5" Hot Swap	-		-		8	
Cooling	Chassis Fan	6 x 4056 high speed fan + 1 x 4028 system fan		2 x 8038 CPU fan + 4 x 8038 card cage fan		4 x 12038 system fan	
	Air Filter	-		-		-	
Chassis Intrusion Alarm		✓		✓		✓	
Front USB		2 x USB2.0		2 x USB2.0		2 x USB3.0	
Miscellaneous	LED Indicators	Power Status, LAN Status, System information LED		Power Status, LAN Status, System information LED		Power status, HDD activity, LAN1 & LAN2	
	Rear Panel	-		-		-	
Environment		Operating	Non-Operating	Operating	Non-Operating	Operating	Non-Operating
	Temperature	0 ~ 35 °C	-40 ~ 60 °C	0 ~ 35 °C	-20 ~ 60 °C	0 ~ 35 °C	-20 ~ 60 °C
	Humidity	95% @ 40 °C	95% @ 60 °C	10 ~ 85% @ 40 °C	0 ~ 95% @ 40 °C	95% @ 40 °C	95% @ 40 °C
	Vibration (5-500 Hz)	0.25 Grms	2 G	0.5 Grms	2 G	0.25 Grms	2 G
	Shock	10G (with 11ms duration, half since wave)	△	10G (with 11ms duration, half since wave)	30G	10G (with 11ms duration, half since wave)	△
Physical Characteristics	Dimensions (W x H x D)	438 x 44 x 650 mm		438 x 44 x 760 mm		435 x 177 x 673 mm	



Model		AD-AGS-913		AD-AGS-923		AD-HPC-7400-S813	
Processor Support		Dual Intel Xeon E5-2600 v3/v4		Dual Intel Xeon E5-2600 v3/v4		Single Intel Xeon E5-2600 v3/v4	
Expansion Slots		3 x PCIe x16 double-depth card + 1 x PCIe x8 FH/HL card		4 x PCIe x16 double-depth card + 1 x PCIe x8 FH/HL card		2 x PCIe x16 double-depth card + 1 x PCIe x8 + PCIe x4 + 1 x PCIe x1	
Drive Bay	Slim ODD Bay	-		-		-	
	2.5" Hot Swap	4		8		-	
	3.5" Hot Swap	-		-		2	
Cooling	Chassis Fan	7 x 40x56 + 2 x 40x28 high speed fan		4 x 80x38 + 1 x 80x20 + 1 x 80x38 (△) high speed fan		3 x 80x38 + △ 2 (6cm) rear fans	
	Air Filter	-		-		✓	
Chassis Intrusion Alarm		✓		✓		✓	
Front USB		2		2		2	
Miscellaneous	LED Indicators	Power status, HDD activity, LAN status, location, error message		Power status, HDD activity, LAN status, location, error message		Power switch and system reset button	
	Rear Panel	Location, error message		Location, error message		-	
Environment		Operating	Non-Operating	Operating	Non-Operating	Operating	Non-Operating
	Temperature	0 ~ 40 °C	-20 ~ 60 °C	0 ~ 40 °C	-20 ~ 60 °C	0 ~ 40 °C	-20 ~ 60 °C
	Humidity	10 ~ 85% @ 40 °C		10 ~ 85% @ 40 °C		10 ~ 95% @ 40 °C	
	Vibration (5-500 Hz)	0.5 Grms		2G		2G	
	Shock	10 G (with 11ms duration, half since wave)		10 G (with 11ms duration, half since wave)		10 G (with 11ms duration, half since wave)	
Physical Characteristics	Dimensions (W x H x D)	430 x 44 x 770 mm		430 x 88 x 770 mm		482 x 177 x 448 mm	

✓: supported, -: not supported, △: optional

- 1 Industrial Computing
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Industrial Server & Storage

Storage Server

High-performance and cost-effective industrial storage fulfill the requirements of industrial environments and mission-critical industrial applications. Industrial storage server has comprehensive fault-tolerant capability with H/W RAID and online expansion capability via JBOD to ensure the highest possible data availability. The external disk array is designed to provide systems with the ability to consolidate and share data at an affordable price, while leveraging advanced software capabilities usually found in more expensive mid-range & high-end systems.

1U, 16 NVMe SSDs, Dual Intel® Xeon® E5 Storage Server



AD-ASR-3100

1U Rackmount
Offers high scalability

2 CPUs
Dual Intel Xeon
E5 v3 processor

16 NVMe SSD
Interchangeable
with SAS and SATA

6 Million IOPS
30% performance
increase

1100W
1+1 redundant power
supply



Model		AD-SKY-5240	AD-ASR-3100	AD-SKY-4311
System	Form Factor	2U 4 Nodes	1U 16 bay	1U 8 bay
	Number of Drives	24 bays (2.5")	16 bays (2.5")	8 bays (2.5")
	Drive Type	NVMe/SAS/SATA	NVMe/SAS/SATA	NVMe/SATA
	CPU Type	Intel Xeon Scalable dual processors (up to 145W TDP)	Dual LGA 2011-R3 supports Intel Xeon E5-2600 V3/V4 series	Dual LGA 2011-R3 supports Intel Xeon E5-2600 V3/V4 series
	Chipset	Intel C622	Intel C612	Intel C612
	Memory Type	24 x DDR4-2666 ECC RDIMMs (Up to 768 GB)	16 x DDR4-2133 ECC RDIMM (up to 512 GB)	16 x DDR4-2133 ECC RDIMM (up to 512 GB)
	Storage Expansion	-	-	2 x PCIe x8 (Gen3)
	Configuration	-	-	-
TPM	-	-	-	
Smart Fan Control	✓	✓	✓	
Expansion Slot	PCIe x16	2 Per Node (Supports HHHL)	-	-
	PCIe x8	-	2 (supports 1 x HHHL card and 1 x FHHL card)	2 (supports 1 x HHHL card and 1 x FHHL card)
Display	Integrated Chipset	-	-	-
	Display Memory	64 MB	64 MB	1 GB
	VGA	ASPEED AST-2500 (Per Node)	ASPEED AST-2400	ASPEED AST-2400
Ethernet	RJ-45 Ethernet	3 (Per Node)	2	2
I/O	Front I/O	-	1 x USB 2.0	1 x USB 2.0
	Rear I/O	Per Node 1 x VGA 2 x USB 3.0 3 x LAN RJ45	1 x VGA 1 x COM RS-232 4 x USB 3.0 2 x LAN RJ45	1 x VGA 1 x COM RS-232 4 x USB 3.0 2 x LAN RJ45
	Internal I/O Connector	2 x M.2 2280 Connector (Per Node)	2 x M.2 connectors (2242)	2 x M.2 connectors (2242)
Power Supply	Power Output	2200W 80 PLUS Platinum 1+1 redundant p/s	1100W redundant p/s	1100W redundant p/s
	Input Range	220 ~ 240VAC	100 ~ 240VAC	100 ~ 240VAC
Mechanical	Dimensions (LxWxH)	830 x 446 x 88 mm	806 x 430 x 44 mm	626 x 430 x 44 mm
	Weight	-	17 kg (without hard drives)	15 kg (without hard drives)
Environmental	Operating Temperature	0 ~ 35 °C	0 ~ 40 °C	0 ~ 40 °C
	Non-Operating Temperature	-20 ~ 60 °C	-20 ~ 60 °C	-20 ~ 60 °C
	Operating Humidity	95% @ 40 °C, non-condensing	10 ~ 85% @ 40 °C, non-condensing	10 ~ 85% @ 40 °C, non-condensing
	Non-Operating Humidity	95% @ 40 °C, non-condensing	10 ~ 95% @ 40 °C, non-condensing	10 ~ 95% @ 40 °C, non-condensing
	Operating Vibration (5~500 Hz)	0.25Grms	0.25Grms	0.25Grms
Miscellaneous	Notification LED	Power status, HDD Status, Fan Status, Location, Overheat, Node Status, Node Alert	Power Status, System Error, HDD Status, LAN LED, Location	Power Status, System Error, HDD Status, LAN LED, Location

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Industrial Server & Storage

Network Appliance

PUZZLE series network appliance includes x86-based and ARM-based product solutions. x86 systems adapt Intel or AMD CPU; ARM-based systems adapt Marvell, NXP or Cavium SoC.



Model		I-PUZZLE-A002	I-PUZZLE-IN001	I-PUZZLE-N001
Platform	Form Factor	1U	1U	1U
	CPU	AMD R-Series RX-421ND processor, 4C, up to 3.4 GHz	Intel Xeon E-2136 Processor, 6C/12T, up to 4.50 GHz 8th Gen Intel Core™ i3-8100T Processor, 4C/4T, up to 3.10 GHz	NXP QorIQ Layerscape LS2084ASE7TTB Multicore Communications Processors, 8C, 1.8GHz / 4C, 1.8GHz
	Chipset	Integrated in CPU	Intel C246	Integrated in CPU
Memory	Memory Technology	2 x DDR4 2400MHz Non-ECC UDIMM	2 x DDR4 2400MHz ECC/Non-ECC UDIMM	DDR4 1867MHz ECC/Non-ECC/RDIMM
	Memory Capacity	Up to 32GB	Up to 32GB	Up to 64GB
	Memory Socket	2 x 288-pin DIMM	2 x 288-pin DIMM	4 x 288-pin DIMM
Network and Security	Network acceleration and Security function	AES-NI encryption acceleration AMD Secure Processor Secure boot with AMD Hardware Validated Boot (HVB)	Intel AES New Instructions Intel Software Guard Extensions (Intel SGX) Intel Memory Protection Extensions (Intel MPX) Intel Trusted Execution Technology	Packet Processor Datapath acceleration Cryptography acceleration DPAA2 (Datapath acceleration architecture) Pattern matching acceleration (PME 2.0) Decompression/compression acceleration
	TPM	1 x TPM 2.0 Pin header	1 x TPM 2.0 Pin header	TustZone (like a soft TPM)
Networking	Ethernet IC	1 GbE NIC: Broadcom BCM5720	1 GbE NIC: Intel i211-AT	10 GbE PHY/ 1 GbE PHY
	Ethernet Port	6 x 1GbE RJ45 LAN ports	8 x 1GbE RJ45 LAN ports	8 x 10 GbE (RJ-45/SFP+ combo) 4 x 1GbE RJ45 LAN ports
	Network Module Slot	N/A	2 x Networking Module Slot	N/A
Expansion slot	PCIe slot	2 x PCIe x4 slot	1 x PCIe x4 slot, 1 x PCIe x8 slot	N/A
	PCIe mini card slot	1 x PCIe mini card (PCIe, USB 2.0, Micro SIM slot)	1 x PCIe mini card (PCIe & SATA, USB 2.0)	N/A
	M.2	1 x M.2 A key (PCIe & USB 2.0)	1 x M.2 B key 2260/2280 (SATA & USB 3.1 Gen 1)	1 x M.2 A key (PCIe & USB 2.0) 1 x M.2 B key (PCIe & USB 3.1 Gen 1)
Storage	Storage	2 x 2.5" SATA HDD/SSD bay	2 x 2.5" SATA HDD/SSD bay	2 x 2.5" SATA HDD/SSD bay
	eMMC	8GbE	N/A	32GB
	SD card	N/A	N/A	1 x SD card slot
External I/O	USB 3.1	2 x USB 3.1 Gen 1	2 x USB 3.1 Gen 1	2 x USB 3.1 Gen 1
	Console	1 x RJ45	1 x RJ45	1 x RJ45
Internal I/O	M.2	1 x M.2 A key (PCIe & USB 2.0)	1 x M.2 B key 2260/2280 (SATA & USB 3.1 Gen 1)	1 x M.2 A key (PCIe & USB 2.0) 1 x M.2 B key (PCIe & USB 3.1 Gen 1)
	HDMI	N/A	1 x HDMI connector (optional)	N/A
	USB	1 x USB USB 3.1 Gen 1 2 x USB 2.0	4 x USB 2.0 (pin header)	N/A
Power and Mechanical	Power Switch	1 x Power Switch	1 x Power Switch	1 x Power Switch
	Reset Button	1 x Reset Button	1 x Reset Button	1 x Reset Button
	Power Input	100 V ~ 240 V	100 V ~ 240 V	100 V ~ 240 V
	Type/Watt	ATX Power 250W, 90V~264V AC	Redundant Power 300W, 90V~264V AC	ATX Power 250W, 90V~264V AC
	Processor Cooling	1 x Passive CPU Heatsink	1 x Passive CPU Heatsink	1 x Passive CPU Heatsink
	System Cooling	4 x Cooling Fans with Smart Fan	4 x Cooling Fans with Smart Fan	4 x Cooling Fans with Smart Fan
	Antenna Port	1 x Antenna port	1 x Antenna port	1 x Antenna port
Physical and Environmental	Storage Temperature	-10°C ~ 50°C	-10°C ~ 50°C	-10°C ~ 50°C
	Operating Temperature	0 ~ 40 °C	0 ~ 40 °C	0 ~ 40 °C
	Operating Humidity	5%~90% non-condensing	5%~90% non-condensing	5%~90% non-condensing
	Dimensions (W x H x D)	430 x 320 x 44.2mm	430x426x44.2mm	430 x 320 x 44.2mm
	Weight	5kg	7kg	5kg
OS and Certification	Certification	CE / FCC	CE / FCC	CE / FCC
	Operating System	Linux Ubuntu 16.04.04	Linux Ubuntu 16.04.04	Linux Ubuntu 16.04.04
Indicators	LCM	LCM, 2 buttons	LCM, 2 buttons	LCM, 2 buttons
	LED	1 x Power LED, 1 x Storage LED, 1 x Alert LED	1 x Power LED, 1 x Storage LED, 1 x Alert LED	1 x Power LED, 1 x Storage LED, 1 x Alert LED, 8 x 1 GbE LED, 16 x 10 GbE LED

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Industrial Server & Storage

Rack LCD Drawer

LCD console drawer series completely fulfill customers' needs in today's market sector via their unique features, such as Full HD 1080p, Ultra High Resolution 1920 x 1200, widescreen, Dual Slide design, the full range of KVM integration and keyboard options.



LCD Console Drawer

Model	RKP117 / 119	N117 / 119	RKP7 / 9	F117	X117	L120
LCD Size	17" / 19"	17" / 19"	17" / 19"	17"	17"	20"
Resolution	1280 X 1024	1280 X 1024	1280 X 1024	1920 x 1080	1920 x 1200	1600 X 1200



Sun Solution LCD Console Drawer

Model	F117S	X117S	WS119	S117 / 119	NS117 / 119	DS117 / 119
LCD Size	17"	17"	19"	17" / 19"	17"	19"
Resolution	1920 X 1080	1920 X 1200	1400 X 900	1280 X 1024	1280 X 1024	1280 X 1024
Sun Micro	1152 x 900	1152 x 900	1152 x 900	1152 x 900	1152 x 900	1152 x 900



Dual Slide LCD Console Drawer

Model	DF117	DX117	D117 / 119	RKP2417 / 2419
LCD Size	17"	17"	17" / 19"	17" / 19"
Resolution	1920 X 1080	1920 X 1200	1280 X 1024	1280 X 1024
Remarks				2U short depth



Mac Solution LCD Console Drawer

Model	F117M	X117M
LCD Size	17"	17"
Resolution	1920 X 1080	1920 X 1200

Features:

- LCD console drawer with VGA and DVI-D Support
- 104-key keyboard with either touchpad or trackball
- SUN Micro or MAC keyboard options available
- New enhanced aesthetics with molded front handle
- Front USB port for device access (USB Hub KVM only)
- 2 post rack mounting available



High Brightness LCD Console Drawer

Model	HF117	H117 / 119
LCD Size	17"	17" / 19"
Resolution	1920 X 1080	1280 X 1024
Brightness	1000 cd/m ²	1000 cd/m ²

Options:

- 3G / HD / SD-SDI Broadcast-grade input (with speaker)
- HDMI (with speaker) or Audio input
- DC power: 12V / 24V / 48V / 110 ~ 125V



Large LCD

Model	F121	X124
LCD Size	21"	24"
Resolution	1920 X 1080	1920 X 1200

Industrial Server & Storage

Rack KVM Switch

KVM switch family include Matrix Cat6 KVM, Combo Cat6 KVM, Matrix DB-15 KVM, Combo DB-15 KVM, DVI-D KVM, USB Hub KVM and PS/2 KVM. We also provide KVM extender for KVM usage enhancement in existing customer environment.



Matrix Cat6 KVM



Combo Cat6 KVM



Matrix DB-15 KVM



Combo DB-15 KVM



DVI-D KVM









USB Hub KVM



PS/2 KVM



Receiver

Rackmount KVM Family	Matrix Cat6 KVM	Combo Cat6 KVM	Matrix DB-15 KVM	Combo DB-15 KVM	DVI-D KVM	USB Hub KVM	PS/2 KVM
KVM port					DVI + USB		
Port #	32 / 16	32 / 16 / 8	16 / 8	16 / 8	12	16 / 8	8
Server-side KB / MS	USB / PS2	USB / PS2	USB / PS2	USB / PS2	USB	USB	PS2
Server-side Video	VGA / DVI	VGA / DVI	VGA	VGA	DVI-D	VGA	VGA
Server-side Audio	-	-	-	-	Stereo	-	-
USB Device Port	-	-	-	-	-	2 x USB 2.0	-
Max. Distance (KVM to Server)	40M	40M	4.5M	4.5M	4.5M	4.5M	4.5M
Cascade Level	8	8	8	8	-	-	8
On-Screen Menu	•	•	•	•	-	•	•
Simultaneous User (max. 4)	•	-	•	-	-	-	-
IP Access Option	•	•	•	•	-	•	-
Multi-user Profile	•	•	•	•	-	•	-
1U Standalone KVM	•	•	•	•	•	•	•
KVM module for LCD Console Drawer	•	•	•	•	•	•	•

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Industrial Server & Storage

Computing Acceleration Card

The PCIe-based accelerator card for data centers offers both inline and lookaside acceleration. It's a perfect choice for deep learning inference workloads.

Accelerator CPU

I-Mustang-200: with 2 Intel® Kabylake ULT CPU



- Dual 10Gbps network based x86 computing accelerator
- Decentralized computing architecture for independent tasks
- PCI Express x4 delivers scalable and flexible solution
- Two Intel® Core™ i7-7567U/i5-7267/Celeron® 3865U processors, up to 4.00 GHz
- Support high-end graphics engine - Intel® Iris™ Plus Graphics 650
- Pre-installed 32 GB DDR4 (max. 64 GB) and 1TB NVMe (max. 2 TB)

Accelerator FPGA

I-Mustang-F100-A10: with Intel® Arria® 10 FPGA



- Half-Height, Half-Length, Double-slot.
- Power-efficiency, low-latency.
- Supported OpenVINO™ toolkit, AI edge computing ready device
- FPGAs can be optimized for different deep learning tasks
- Intel® FPGAs supports multiple float-points and inference workloads

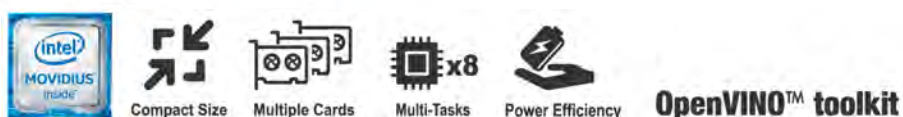


Accelerator VPU

I-Mustang-V100-MX8: with Intel® Movidius™ VPU



- Half-Height, Half-Length, Single-slot compact size
- Low power consumption ,approximate 2.5W for each Intel® Movidius™ Myriad™ X VPU.
- Supported OpenVINO™ toolkit, AI edge computing ready device
- Eight Intel® Movidius™ Myriad™ X VPU can execute multiple topologies simultaneously





3

Embedded Computing

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Embedded Computing

Comprehensive and High-Performance Embedded Computing

Anewtech is continuously delivering cutting edge solutions based on the latest platforms with proven high performance, reliability, longevity and excellent design quality to help customers speed time-to-market.

Computer On Module

Computer-On-Module, or COM, is a highly integrated board with CPU, chipset, memory, and peripherals designed into a component 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.



Qseven
70 x 70 mm



COM-Express Mini
84 x 55 mm



COM-Express Compact
95 x 95 mm



COM-Express Basic
125 x 95 mm



ETX
114 x 95 mm

Multiple I/O (MI/O) Extension Embedded Board

MI/O (Multiple I/O) Extension embedded board is strategically positioned between Single Board Computer (SBC) and Computer On Module (COM). MI/O Extension SBC equipped with flexible multiple I/O which helps deliver efficient scheduling, less development resources, and provides system integrators with optimized solutions in a cost-effective way. The MI/O Extension connector (MIOe) is ready for additional extended interfaces and future technology trends and currently supports: DisplayPort, PCIe x1*, LPC, SMBus, USB 2.0/USB 3.0, audio line-out, power control and supply.

- 2.5" MI/O-Ultra (Pico-ITX) SBC
- 2.5" MI/O-Ultra (Pico-ITX) MIOe Module
- 3.5" MI/O-Compact SBC
- 3.5" MI/O-Compact MIOe Module
- MI/O Extension Evaluation Board



2.5" MI/O-Ultra (Pico-ITX) SBC



3.5" MI/O-Compact SBC



MIOe Evaluation Board

Embedded Board

Embedded board series range from 2.5" Pico-ITX, 3.5", PC/104 Modules and EBX, to 5.25" SBC boards. Embedded board offers standard form factors in compact sizes with rich I/O, high flexibility and easy expansion capabilities, featuring scalable performance to fulfill multiple applications that demand reliable operation and industrial grade design and quality.

Embedded board ultra low power/extreme performance solutions, fanless designs, compact and low profile architectures, and extended temperature options and longevity. With their rugged features, embedded board guarantee the highest reliability and durability in all kinds of extreme environment applications, making it a perfect fit for price competitive markets, size-sensitive devices, and the harshest of environments.



2.5" Pico-ITX
100 x 72 mm



PC/104 Module
96 x 90 mm



3.5" Embedded Board
146 x 102 mm



EPIC Embedded Board
165 x 115 mm



EBX & 5.25" Embedded Board
203 x 146 mm

Embedded Computing

EPIC Embedded Board



Model	I-NANO-AL	I-NANO-ULT3	I-NANO-BT-i1/BTW2	I-NANO-SE/KBN-i1	I-NANO-QM871-i1
CPU Socket	On board	On board	On board	On board	On board
CPU Type	Intel Atom™/Celeron/Pentium on-board SoC	Intel Core™ i7/i5/i3, Celeron ULT processor	Intel Atom™, Celeron on-board SoC	AMD Embedded G-Series SoC	Intel Core™ i7/i5/i3, Celeron Mobile processor
Chipset	Intel Atom™/Celeron/Pentium on-board SoC	Intel Core™ i7/i5/i3, Celeron ULT processor	Intel Atom™/Celeron on-board SoC	AMD Embedded G-Series SoC	Intel QM87
Memory	1 x 204-pin 1866/1600 MHz single-channel DDR3L SO-DIMM (system max. 8 GB)	2 x 260-pin 2133/1867 MHz dual-channel DDR4 SO-DIMMs (system max. 32 GB)	1 x 204-pin 1333/1066 MHz single-channel DDR3L SO-DIMM (system max. 8 GB)	1 x 204-pin 1600/1333 MHz single-channel DDR3 & DDR3L SO-DIMM (system max. 8 GB)	1 x 204-pin 1600/1333 MHz dual-channel DDR3/DDR3L SO-DIMM (system max. 8 GB)
Display Interface	Triple independent display 2 x HDMI 1 x 18/24-bit dual-channel LVDS 1 x iDP	Triple independent display 2 x HDMI 1 x 18/24-bit dual-channel LVDS 1 x iDP interface	Dual display supported 1 x VGA 1 x HDMI 1 x 18/24-bit dual-channel LVDS	Dual display supported 1 x VGA 1 x HDMI 1 x 18/24-bit dual-channel LVDS	Dual display supported 1 x VGA 2 x HDMI 1 x 18/24-bit dual-channel LVDS
Ethernet	Dual LAN: Intel I210-IT/ I211-AT PCIe controller	LAN1: Intel I219-LM PHY with Intel AMT 11.0 supported LAN2: Intel I211-AT PCIe GbE Controller	LAN1: Intel I210-AT PCIe controller with NCSI support LAN2: Intel I211-AT PCIe controller	LAN1: Intel I210-AT PCIe controller with NCSI support LAN2: Intel I211-AT PCIe controller	LAN1: Intel I217-LM PHY with Intel AMT 9.0 supported LAN2: Intel I211-AT PCIe GbE controller
iRIS Remote Management Module	N/A		1 x iRIS-1010 slot		
I/O Interface	1 x PS/2 KB/MS 2 x RS-232/422/485 2 x USB 2.0 4 x RS-232 4 x USB 3.1 Gen 1	1 x PS/2 KB/MS 1 x RS-232/422/485 2 x RS-232 2 x USB 2.0 4 x USB 3.1 Gen 1	1 x PS/2 KB/MS 1 x RS-422/485 1 x USB 3.1 Gen 1 3 x RS-232 3 x USB 2.0	1 x PS/2 KB/MS 1 x RS-422/485 2 x USB 3.1 Gen 1 5 x RS-232 6 x USB 2.0	1 x PS/2 KB/MS 1 x RS-422/485 2 x RS-232 2 x USB 3.1 Gen 1 4 x USB 2.0
Storage Interface	2 x SATA 6Gb/s with 5V SATA power connector 1 x M.2 (B Key) (SATA only)	2 x SATA 6Gb/s with 5V SATA power connector 1 x 8 GB eMMC (optional)	2 x SATA 3Gb/s with 5V SATA power connector	2 x SATA 6Gb/s with 5V SATA power connector	2 x SATA 6Gb/s with 5V SATA power connector (RAID 0, 1)
Audio	Realtek ALC662 HD Audio codec			Realtek ALC892 HD Audio codec	Realtek ALC662 HD Audio codec
Digital I/O	8-bit programmable digital I/O				
Power Consumption	12V@2.13 A (Intel Pentium N4200 CPU with one 8GB 1600MHz DDR3L memory)	12V@2.48A (Intel Core™ i3-6100U CPU)	12V@1.52A (Intel Atom™ J1900 CPU with one 8 GB 1333 MHz DDR3L memory)	12V@1.02A (AMD GX-415GA 1.5GHz CPU with 1600 MHz 8 GB DDR3 memory)	12V@3.78A (Intel 4th Gen. 2.0GHz CPU with one 1333MHz DDR3 4 GB memory)
Watchdog Timer	Software programmable and supports 1~255 sec. system reset				
Operating Environment	Temperature Range: I-NANO-AL: -20°C ~ 70°C I-NANO-ALW2: -40°C ~ 85°C Relative Humidity: 5% ~ 95% non-condensing	Temperature Range: -20°C ~ 60°C Relative Humidity: 5% ~ 95%, non-condensing	Temperature Range: I-NANO-BT-i1: -20°C ~ 60°C I-NANO-BTW2: -40°C ~ 85°C Relative Humidity: 5% ~ 95% non-condensing	Temperature Range: 0°C ~ 60°C Relative Humidity: 5% ~ 95%, non-condensing	Temperature Range: -10°C ~ 60°C Relative Humidity: 5% ~ 95%, non-condensing
Expansion Slots	1 x Full/Half-size PCIe Mini slot (with Micro SIM holder)	1 x Full-size PCIe Mini card slot (SIM holder & mSATA support) 1 x Half-size PCIe Mini card slot	1 x Full-size PCIe Mini card slot with mSATA support 1 x PCI-104 slot	1 x Full-size PCIe Mini card slot with mSATA support	1 x Full-size PCIe Mini card slot
CPU Cooler	Heatsink	Heat Spreader	Heatsink	GX-415GA (with heatsink) GX-210HA (with cooler)	XCF-479B-RS / CF-989B-RS-R11

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Embedded Computing

3.5" Embedded Board



Model	I-WAFER-AL	I-WAFER-ULT4/ULT3	I-WAFER-BW	I-WAFER-BTW2	I-WAFER-ULT2/ULT-I1
CPU Socket	On board	On board	On board	On board	On board
CPU Type	Intel Atom™/Celeron/Pentium on-board SoC	Intel Mobile ULT processor	Intel Pentium/Celeron SoC	Intel Atom™/Celeron SoC	Intel Mobile ULT processor
Chipset	Intel Atom™/Celeron/Pentium on-board SoC	Intel Mobile ULT processor	Intel Pentium/Celeron SoC	Intel Atom™/Celeron SoC	Intel Lynx Point SoC
Memory	1 x 204-pin 1866/1600 MHz single-channel DDR3L SO-DIMM (system max. 8 GB)	1 x 260-pin 2133MHz DDR4 SDRAM SO-DIMM (channel 1) On-board DDR4 memory (optional 4/8GB support)	1 x 204-pin 1600/1333 MHz single-channel DDR3L SDRAM unbuffered SO-DIMM slot (system max. 8 GB)	4 GB solder-down 1066/1333 MHz DDR3L memory (for E3845) 2 GB solder-down 1066/1333 MHz DDR3L memory (for E3825)	2 x 204-pin 1600/1333 MHz dual-channel DDR3L SO-DIMMs (system max. 16 GB)
Display Interface	Triple independent display 1 x VGA 1 x DP++ 1 x 18/24-bit dual-channel LVDS 1 x iDP	Triple independent displays 1 x VGA 1 x HDMI 1 x 18/24-bit dual-channel LVDS 1 x iDP interface for HDMI, LVDS, VGA, DVI, DP	Triple independent display 2 x HDMI 1 x 18/24-bit dual-channel LVDS	Dual independent display 1 x VGA 1 x 18/24-bit dual-channel LVDS 1 x iDP interface	Dual display supported 1 x VGA 1 x 18/24-bit dual-channel LVDS 1 x iDP interface
Ethernet	LAN1 & 2: Realtek RTL8111 Controller	1 x Intel I219LM 1 x Intel I211AT	LAN1 & 2: Realtek RTL8111GN controller	LAN1 & 2: Intel I210-IT PCIe controller	LAN1: Intel I218LM PHY LAN2: Intel I210-AT PCIe GbE controller
iRIS Remote Management Module	N/A				1 x iRIS-1010 slot
I/O Interface	2 x RS-232 2 x RS-232/422/485 2 x USB 3.1 Gen 1 4 x USB 2.0	2 x RS-232/422/485 4 x USB 3.1 Gen 1 2 x USB 2.0	1 x PS/2 KB/MS 2 x RS-232/422/485 2 x USB 3.1 Gen 1 4 x RS-232 4 x USB 2.0	1 x PS/2 KB/MS 1 x RS-422/485 1 x USB 3.1 Gen 1 3 x RS-232 5 x USB 2.0	1 x PS/2 KB/MS 1 x RS-422/485 2 x USB 2.0 2 x USB 3.1 Gen 1 3 x RS-232
Storage Interface	2 x SATA 6Gb/s with 5V SATA power connector	1 x SATA 6Gb/s with 5V SATA power connector	2 x SATA 6Gb/s with 5V SATA power connector (no RAID) 1 x eMMC4.51 (optional)	2 x SATA 3Gb/s with 5V SATA power connector (no RAID) 1 x 4 GB on-board SSD (optional) 1 x microSD 1 x mSATA	2 x SATA 6Gb/s with 5V power connector
Audio	Realtek ALC662 HD Audio codec	N/A	Realtek ALC662 HD Audio codec		Realtek ALC662 HD Audio codec
Digital I/O	8-bit programmable digital I/O				
Power Consumption	12V@2.57A (Intel Pentium N4200 up to 2.5GHz with 8GB DDR3L memory)	12V@4.27A (Intel Core™ i7-6600U up to 3.4GHz CPU with 16GB (16GB x1) DDR4-2133 memory running in 3.0GHz)	12V@1.52A (Intel Pentium processor N3710 with 8 GB 1600MHz DDR3L memory)	12V@1.32A (Intel Atom™ processor E3845 with on-board 2 GB 1333 MHz DDR3L memory)	12V@2.72A (Intel Core™ i5-4300U CPU with two 8 GB 1600 MHz DDR3 memory)
Watchdog Timer	Software programmable and supports 1~255 sec. system reset				
Operating Environment	Temperature Range: -20°C ~ 70°C Relative Humidity: 5% ~ 95%, non-condensing		Temperature Range: -20°C ~ 60°C Relative Humidity: 5% ~ 95%, non-condensing		Temperature Range: -10°C ~ 60°C Relative Humidity: 5% ~ 95%, non-condensing
Expansion Slot	2 x Full/Half-size PCIe Mini card slot (one supports mSATA, another one with SIM holder)	1 x Full-size PCIe Mini slot (with SATA signal, support mSATA) 1 x Full-size PCIe Mini slot (with SIM card slot support)	2 x Full/Half-size PCIe Mini card slot (one with SIM holder)	2 x Full-size PCIe Mini card slot (one with SIM holder)	1 x Full-size PCIe Mini card slot (supports mSATA)
Recommended CPU Cooler	Heatsink	Heat Spreader	Heat Spreader	Heatsink	Heat Spreader

Embedded Computing

PC/104 Embedded Board

PICO-ITX Embedded Board



Model	I-PM-BT	I-PM-LX	I-HYPER-RK39	I-HYPER-BW	I-HYPER-BT
CPU Socket	On board	On board	On board	On board	On board
CPU Type	Intel Atom™/Celeron SoC	AMD Geode™ LX 800 500 MHz	Rockchip RK3399 (Dual-core Cortex-A72 up to 1.8GHz + Quad core Cortex-A53 up to 1.5GHz)	Intel Pentium/Celeron SoC	Intel Atom™/Celeron SoC
Chipset	Intel Atom™/Celeron SoC	Geode™ LX800 + CS5536	SoC	Intel Pentium/Celeron SoC	Intel Atom™/Celeron SoC
Memory	1 x 204-pin 1066/1333 MHz DDR3L SO-DIMM (system max. 8 GB)	1 x 200-pin 400 MHz 1 GB (max.) DDR SDRAM SO-DIMM	On board 2GB LPDDR3-1866	1 x 204-pin 1600/1333 MHz single-channel DDR3L SDRAM unbuffered SO-DIMM slot (system max. 8 GB)	1 x 204-pin 1600/1333 MHz single-channel DDR3L SDRAM unbuffered SO-DIMM slot (system max. 8 GB)
Display Interface	Dual display supported 1 x VGA 1 x 18/24-bit single-channel LVDS	Dual display supported 1 x VGA 1 x 24-bit TTL	Dual independent display 1 x HDMI 1 x eDP	Dual independent display 2 x Mini HDMI	Dual independent display 1 x VGA 1 x iDP interface
Ethernet	GbE by Intel I210 Ethernet PHY	10/100Mbps LAN by Realtek RTL8100C	Realtek RTL8211E	Realtek RTL8111GN controller	Intel I211-AT PCIe GbE controller
iRIS Remote Management Module	N/A				
I/O Interface	2 x RS-232/422/485 (2x5, P=2.0) 3 x USB 2.0 (1x4 pin, P=1.25)	1 x KB/MS by pin header 1 x LPT 1 x RS-422/485 2 x RS-232 2 x USB 2.0	1 x RS-232/422/485 1 x USB 3.1 Gen1 (5Gb/s) Type A 1 x USB 3.1 Gen1 (5Gb/s) Type C 1 x USB 2.0 Type A 1 x I ² C 1 x MIPI CSI interfaces for Camera 8 bit (4 in / 4 out)	1 x RS-232 1 x USB 3.1 Gen 1 3 x USB 2.0	1 x RS-232 1 x USB 3.1 Gen 1 3 x USB 2.0
Storage Interface	1 x SATA 3Gb/s with 5V SATA power connector On-board SSD (optional)	1 x IDE 1 x CF Type II	1 x Micro SD slot	1 x SATA 6Gb/s with 5V SATA power connector (no RAID)	1 x SATA 3Gb/s with 5V SATA power connector (no RAID)
Audio	N/A		1 x 2 pin for speaker 1 x 10 pin (Line in / Line out)	10 pin header on board support 7.1 channel HD Audio by AC-KIT-892HD-R10	Realtek ALC662 HD Audio codec
Digital I/O	1 x 8-bit DIO	N/A			
Power Consumption	5V@1.70A (Intel Celeron J1900 CPU with 8GB memory)	5V@1.13A (AMD Geode™ LX 800 with 1 GB DDR 400 MHz)	12V@1.2A	12V@1.52A (Intel Pentium N3710 with 8 GB 1600 MHz DDR3L memory)	12V@1.35A (Intel Celeron J1900 with one 8 GB 1333 MHz DDR3L memory)
Watchdog Timer	Software programmable and supports 1-255 sec. system reset				
Operating Environment	-20°C ~ 60°C (for J1900/N2930/N2807) -40°C ~ 85°C (for E38xx)	Temperature Range: 0°C ~ 60°C Relative Humidity: 5% ~ 95%, non-condensing	Temperature Range: -10°C ~ 50°C Relative Humidity: 10% ~ 90%, non-condensing	Temperature Range: -20°C ~ 60°C Relative Humidity: 5% ~ 95%, non-condensing	
Expansion Slot	1 x Full-size PCIe Mini slot (support mSATA) 1 x PC/104-Plus (ISA+PCI)	1 x PCI-104	1 x Full-size PCIe Mini (reserved for WWAN)	1 x M.2 (B key)	N/A
CPU Cooler	Heatsink	Heatsink	Heatsink	Heatsink	Heat Spreader

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Embedded Computing

Embedded System

TANK Series

Rugged system with a wide range of I/O interfaces and multiple expansion, allowing users to connect to different devices for comprehensive automation solution.



TANK AIoT Developer Kit: Multiple PCI/PCIe Expansion

- 6th/7th Gen Intel® Core™/Xeon® processor platform
- Intel® Q170/C236 chipset and DDR4 memory
- Support Intel® CPU/ GPU/ FPGA/ VPU acceleration
- Pre-install OpenVINO™ toolkit for AI inference acceleration
- Pre-built training models to simulate and infer the status or appearance of objects recognized by cameras



TANK-800 Series: Multiple PCI/PCIe Expansion

- Intel® HM86 chipset + 4th generation Intel® Core™ CPU
- Great flexibility of expansion slots
 - » 2-slot model: 2 x PCIe x 16, 1 x PCIe Mini slot
 - » 4-slot model: 2 x PCIe x 16, 2 x PCI, 2 x PCIe Mini slot
 - » 6-slot model: 1 x PCIe x 16, 2 x PCIe x 4, 3 x PCI, 2 x PCIe Mini slot



TANK-700 Series: Multiple PCIe Mini Expansion

- Intel® Core™ i7-4700EQ / i5-4400E/ Celeron® 2000E processor
- Support triple display
- 8-channel audio/video capture capability
- Military compliant



TANK-600 Series: Multiple Serial Port

- I-TANK-620-ULT3: Intel® Celeron® 3855U 1.6GHz, 8 x RS-232/422/485 ports with automatic flow control (DB-9), 6 x RS-232 (DB-9)
- I-TANK-610-BW: Intel® Celeron® N3160 1.6GHz, 2 x RS-232/422/485, 6 x RS-232

DIN-Rail Embedded System



DRPC Series

- I-DRPC-130-AL: Intel® Apollo Lake x5-E3930 1.3GHz (up to 1.8GHz, dual core), 2x HDMI, 8 CH DIO, CAN-Bus, COM, 12-24V DC
- I-DRPC-120-BT: Intel® Bay-Trail E3845 1.91 GHz, 1x VGA, 1x HDMI, 8 CH DIO, iRIS-2400 optional, 9 V~28 V DC, OLED indicators



ICO Series

- AX-ICO300-83B: Intel® Celeron® N3350/ Pentium® N4200 processor, Isolated COM, LAN and DIO
- AX-ICO310: Intel® Celeron® N3060/N3160 processor, 2 COM, 4 USB, 2 GbE LANs (1 PoE PD), DIO and RTC

Embedded Computing

Embedded System

ARK Series

Fanless Embedded Computers are embedded systems engaged in edge computing and highly suitable for remote monitoring and control. We offers diverse modular and ready-to-order I/O products to help customers rapidly implement diverse applications and maximize the resulting benefits.



Ultra Small: ARK-1000 Series

- Palm Size: 133.8 (W) x 43.1(H) x 94.2(D) mm
- Green: Ultra low power consumption, minimum 10 Watts
- Wide Temperature: -30 ~ 70°C operating support
- Storage: 2.5" HDD/SSD or mSATA
- Expansion: MiniPCIe/M.2 + SIM for wireless communication



Compact Extendible: ARK-2000 series

- Compact Size: 265(W) x 69(H) x 133(D) mm
- Platform: Intel® Atom® to Intel® Core™ i
- Rugged Design: 3Grms vibration/ 30G shock
- Storage: 2.5" HDD/SSD, mSATA
- Expansion: MiniPCIe/M.2 + SIM for wireless communication module



Multi Expansion: ARK-3500 series

- Extreme High Performance: Intel® Core™ i3/i5/i7
- Wide Operating Temperature: 10~60°C with SSD
- Wide Range Power: 12VDC or 9-36VDC design
- Storage: 2.5" removable HDD/SSD, mSATA and NVMe
- Expansion: PCI, PCIe/x4/x8/x16, miniPCIe, M.2, display module



Support both internal mSATA and hot swappable 2.5" drive bays

Slim & Mountable: ARK-1500 series

- Ultra Slim: 223(W) x 46.6(H) x 133(D) mm
- Platform: Intel® Celeron® to Intel® Core™ i
- Easy Backup: One removable 2.5" drive bay
- Expansion: MiniPCIe for storage or wireless modules
- Mounting Solution: Wall, VESA and DIN-Rail kits



High Value: ARK-6300 Series

- Platform: Intel® Atom® to Celeron® series
- Dual display: VGA + DisplayPort
- Maximize I/O: Up to 8 x USB and 6 x COM
- Storage: 1 x 3.5" HDD or 1 x 2.5" HDD, 1 x mSATA
- Expansion: Up to 2 x MiniPCIe slots, iDoor module compatible



Surveillance/ In-vehicle/ Rolling stock: ARK-S/ ARK-V/ ARK-R Series

- Video Capability: D1, 720p to 1080p 240fps
- Secured I/O: Isolated COM, GPIO and DC input
- Diverse Communications: GPS, 3xMIMO WiFi, LTE Cat3/4/11
- Wide Power Range: 9~36VDC with intelligent ignition management
- Rugged Design: IEC 60721-3-5, IEC 61373, MIL-STD 810G

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Embedded Computing

Embedded System

UNO Series: Embedded Automation Computer with iDoor Technology

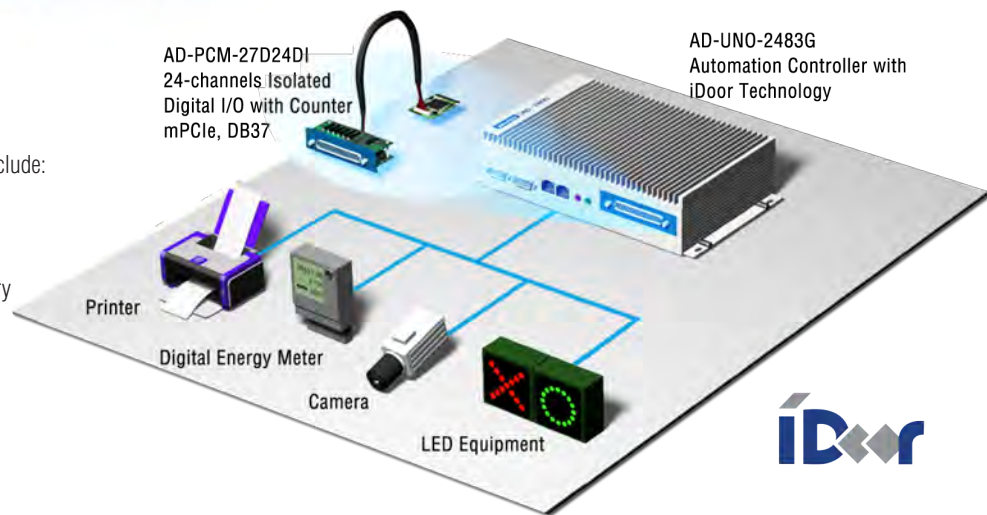


Embedded automation computers are dedicated to providing fanless, industrial-proven and application ready control platforms. With a robust design, they include multiple expansion solutions and versatile mounting way to fulfil the needs of different applications.

The UNO series supports iDoor Technology which is a brand-new design concept that utilizes the mini PCIe format. By using standardized modules and interfaces, iDoor Technology gives customers the flexibility to configure the various I/O requirements based on different applications.

Modules for iDoor Technology include:

- Fieldbus protocol
- Digital and analog I/O
- Smart sensor
- Communication and memory

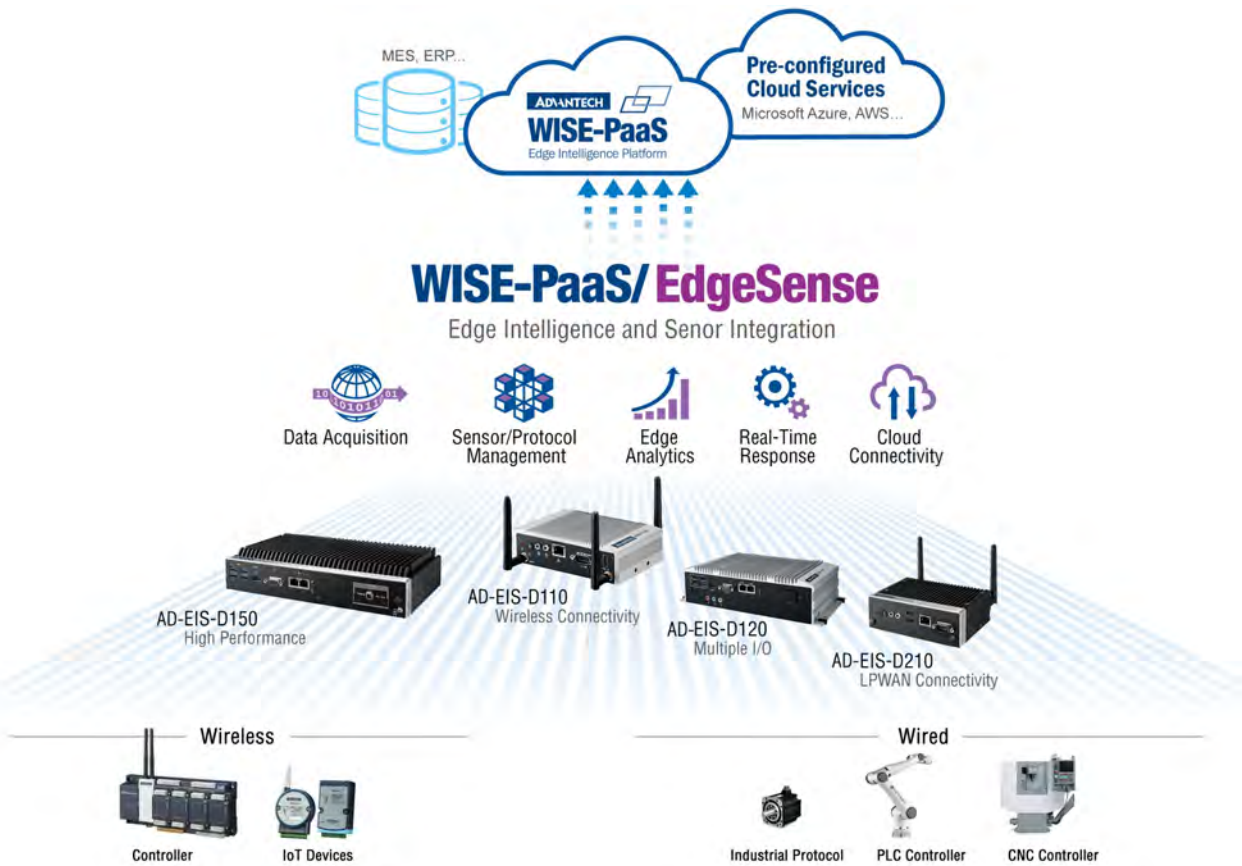


Model	AD-UNO-2271G	AD-UNO-2372G	AD-UNO-2484G
Optimized UNO			
Form-Factor	Pocket-Size	Small-Size	Regular-Size
CPU	Intel Atom™ E3815 1.46GHz Single Core Intel Atom™ E3825 1.33GHz Dual Core	Intel Atom™ E3845 1.91GHz Quad Core Intel Celeron™ J1900 2GHz Quad Core	6th Gen Intel Core™ i7-6600U, 2.6GHz i5-6300U, 2.4GHz / i3-6100U, 2.3GHz
Onboard RAM	4G DDR3L RAM	4G DDR3L SDRAM	8G DDR4 SDRAM
Display	1 x HDMI, supports 1920 x 1080 @ 60Hz	1xDP supports 2560 x 1440@30Hz 1 x HDMI, supports 1920 x 1080@60Hz	1xHDMI, supports 1920x1080@60Hz 1xDP, supports 3840x2160@30Hz
Audio	-	-	LINE-OUT
Serial Ports	-	4 x RS-232/422/485	4 x RS-232/422/485
Ethernet Ports	2 x 10/100/1000Base-T	2 x 10/100/1000Base-T	4 x 10/100/1000Base-T
USB Ports	1 x USB 3.0	1 x USB3.0 3 x USB2.0	4 x USB3.0
Storage	On board 32G eMMC (Optional mSATA)	1x mSATA/mPCIe, 1x SATA	1x mSATA/mPCIe, 2x SATA
Expansion	1 x Full-Size mPCIe Slot, PCIe 2.0	1 x mPCIe/mSATA, 2 x Full-size mPCIe slot	1 x mPCIe/mSATA Up to 4 mPCIe with 2nd layer
Dimension (W x D x H)	100 x 70 x 30 mm	150 x 105 x 35 mm	200 x 140 x 40 mm
Ordering Information	AD-UNO-2271G-E21AE (Single core) AD-UNO-2271G-E021AE (Dual core)	AD-UNO-2372G-E021AE AD-UNO-2372G-J021AE	AD-UNO-2484G-6731AE(i7) AD-UNO-2484G-6531AE(i5) AD-UNO-2484G-6331AE(i3)
Universal UNO (Optimized UNO with Expansion)			
Expansion	1 x iDoor Expansion 1 x Small IO module (2 ports COM or 3 ports USB2.0)	2 x iDoor Expansion 1 x iDoor Expansion + 1 x Small IO module (2 ports COM or 3 ports USB2.0)	4 x iDoor Expansion 3 x iDoor Expansion + 1 x Small IO module (2 ports COM or 3 ports USB2.0)

Embedded Computing

Edge Intelligence Server

WISE-PaaS/EdgeSense is an integrated software solution that incorporates sensor data aggregation, over-the-air software-in-time updates, edge analytics, cloud applications, and secure end-to-end data protection for fast and easy real-time device-to-cloud operational intelligence.



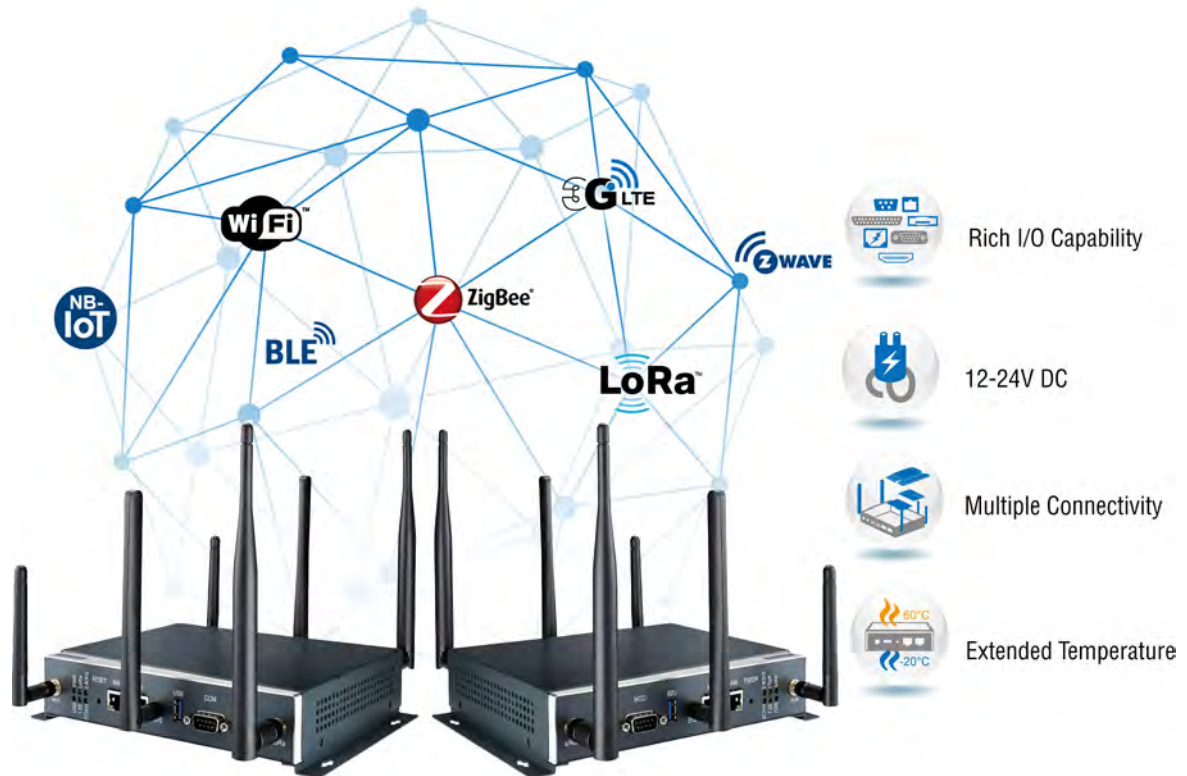
Model	AD-EIS-D210	AD-EIS-D150	AD-EIS-D120	AD-EIS-D110	AD-EIS-DK10
CPU	Intel Celeron N3350	Intel 6th Gen Core™ i5 6300U	Intel Celeron J1900	Intel Celeron J1900	Intel Celeron J1900
RAM/Storage	4GB/ 64GB SSD	4GB/ 64GB SSD	4GB/ 64GB SSD	4GB/ 64GB SSD	4GB/ 64GB SSD
OS	Win 10 IoT Enterprise	WES7E Win 10 IoT Enterprise	WES7E Win 10 IoT Enterprise	WES7E Win 10 IoT Enterprise	WES7E
I/O Interface	VGA x1, GbE x2, RS232/422/485 x2, USB 3.0 x4, iDoor	HDMI x1, VGA x1, GbE x2, RS232/422/485x4, iDoor	HDMIx1, VGAx1, GbE x2, RS-232 x2, RS-232/422/485 x2, iDoor.	HDMI x2, GbE x2, RS232/422/485x1	Includes Modbus TCP module, temperature/humidity sensor, LED indicator, fan, and accessories
Wireless Networking	IEEE 802.11 a/b/g/n Bluetooth 4.1	Optional	Optional	IEEE 802.11 a/b/g/n Bluetooth 4.0 HS	IEEE 802.11 a/b/g/n Bluetooth 4.0 HS
Dimensions (W x H x D)	133 x 46.4 x 94.2 mm	260 x 54 x 140.2 mm	264.5 x 68.4 x 133.0 mm	133.8 x 43.1 x 94.2 mm	350 x 250 x 175 mm
Software Package	WISE-PaaS/ EdgeSense WISE-PaaS/RMM WISE-PaaS/OTA WISE-PaaS/Security	Software Solution Remote Monitoring and Management Remote Software Update Centralize Security Management	Applications Software Solution WebAccess/SCADA WebAccess/HMI	Smart SCADA Human Machine Interface	
Cloud Package	Optional	Optional	Optional	Optional	Edge: IoT Hub SDK Cloud: 1 Month Azure VM Solution Package
Development Tools	Node-RED Data Flow Logic Designer & Dashboard Builder Protocol Plug-in SDK & Configuration Tools				
Ordering Information	AD-EIS-D210U-W1DS641 (Win 10; 2018/ 03)	AD-EIS-D150-W1DS641 (WES7E) AD-EIS-D150-E1DS641 (Win 10)	AD-EISD120W1DS641-BTO (WES7E) AD-EISD120E1DS641-BTO (Win 10)	AD-EISD110W1SS641-BTO (WES7E) AD-EISD110W1SS141-BTO (WES7E/128G SSD) AD-EISD110E1SS641-BTO (Win 10)	AD-EISDK-ARK1123-BTO (WES7E)

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Embedded Computing

IoT Gateway

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.



Model		AD-WISE-DK3310	AD-WISE-DK3610	AD-WISE-DK3620
Description		Mesh IoT Gateway Starter Kit Package	LoRa IoT Gateway Starter Kit Package	Wi-Fi IoT Gateway Starter Kit Package
Wireless Technology		Smart Mesh	LoRa	Wi-Fi
Packing List		WISE-3310 Mesh IoT Gateway x 1 WISE-1540 Mesh Sensor Node x 3 WISE-DB1500 M2.COM Development Board with built-in temperature & humidity sensor x 3 WISE-ED20 Debug Board x 3 Account for free trial WISE-PaaS Accessories: cables, antenna, adapter Air Pressure and IAQ sensors extension board x 3	WISE-3610 LoRa IoT Gateway x 1 WISE-1510 LoRa Sensor Node x 3 WISE-DB1500 M2.COM Development Board with built-in temperature & humidity sensor x 3 WISE-ED20 Debug Board x 3 Account for free trial WISE-PaaS Accessories: cables, antenna, adapter Air Pressure and IAQ sensors extension board x 3	WISE-3620 LoRa IoT Gateway x 1 WISE-1520 LoRa Sensor Node x 3 WISE-DB1500 M2.COM development board with built-in temperature & humidity sensor x 3 WISE-ED20 Debug Board x 3 Account for free trial WISE-PaaS Accessories: cables, antenna, adapter Air Pressure and IAQ sensors extension board x 3
Gateways	Serial Port	1 x RS-232/422/485 (DB9 Male)	1 x RS-232/422/485 (DB9 Male)	1 x RS-232 (CTS, RTX, Tx, Rx)
	USB	1 x USB 3.0	1 x USB 3.0	-
	LAN	1 x LAN 10/100/1000Mbps 1 x WAN 10/100/1000Mbps	1 x LAN 10/100/1000Mbps 1 x WAN 10/100/1000Mbps	1 x 10/100/1000Mbps
	Antenna Port	6 (2 for Wi-Fi, 2 for LoRa, 2 optional for 3G/LTE)	6 (2 for Wi-Fi, 2 for LoRa, 2 optional for 3G/LTE)	4 (1 for 100-node SKU, 2 for 200-node SKU, 2 optional for Wi-Fi)
	Operating System	OpenWRT Linux	OpenWRT Linux	Linux
	Operating Temperature	0 °C ~ 40 °C	-20 °C ~ 70 °C	-20 °C ~ 70 °C
Sensor Nodes	I/O Interface	1 UART (4-wire, support RTC/CTS) 1 I ² C 8 GPIO 1 PWM 1 SPI 4 ADC 1 USB (device only)	1 UART (4-wire, support RTC/CTS) 1 I ² C 8 GPIO 1 PWM 1 SPI 4 ADC 1 USB (device only)	1 UART (4-wire, support RTC/CTS) 1 I ² C 2 GPIO 2 PWM 1 SPI 2 ADC (1 for VCC voltage detect)
	Operating System	mbed OS	mbed OS	TI RTOS
	Operating Temperature	-40 ~ 85 °C	-40 ~ 85 °C	-20 ~ 70 °C
Sensors	Embedded Sensor	Temperature & humidity sensor Air Pressure & IAQ sensor	Temperature & humidity sensor Air Pressure & IAQ sensor	Temperature & humidity sensor Air Pressure & IAQ sensor
	Software Package	WISE-PaaS/RMM Remote Monitoring and Management arm MBED MBED Cloud Services		

Embedded Computing

Wireless IoT Sensor Node and Gateway

Comprehensive range of wireless IoT solutions powered by Arm core technology. Featuring low-power consumption and a selection of wireless Arm® Mbed™ cloud service technologies, the sensor nodes, gateways, and cloud services can help you quickly and easily build wireless IoT device-to-cloud network solutions.



M2.COM IoT Sensor Node Modules



Name	AD-WISE-1510	AD-WISE-1511	AD-WISE-1520	AD-WISE-1530	AD-WISE-1540	AD-WISE-1570
Form Factor	M.2 TYPE 2230-D3-E	M.2 TYPE 2230-D3-E	M.2 TYPE 2230-D3-E	M.2 TYPE 2230-D3-E	M.2 TYPE 2230-D3-E	M.2 TYPE 2230-D3-E
Standard	LoRaWAN LoRa Private Network (WISE-Link)	SigFox	IEEE 802.11 b/g/n	IEEE 802.11 b/g/n Bluetooth 4.1	IEEE 802.15.4e	3GPP R14 NB-IOT
MCU	ARM Cortex-M4 Processor	ARM Cortex-M4 Processor	ARM Cortex-M4 Processor	ARM Cortex-M4 Processor	ARM Cortex-M4 Processor	ARM Cortex-M4 Processor
Memory	RAM 64KB Flash 256KB	RAM 64KB Flash 256KB	RAM 256KB Flash 1024KB	RAM 256KB Flash 1024KB	RAM 64KB Flash 256KB	RAM 128KB Flash 1024KB
Wireless Frequency	863-870MHz for Europe 902-928MHz for North America 920-928MHz for Japan 920-925MHz for Taiwan 470-510 MHz for China 915-928MHz for Australia	RCZ1 868MHz for Europe RCZ2 902MHz for North America RCZ3 923MHz for Japan RCZ4 920MHz for Australia	2.412-2.472 GHz	2.400-2.484 GHz for Wi-Fi 2.400-2.4835 GHz for BLE	2.4000-2.4835 GHz	3GPP bands over 698-2180MHz B1-B5, B8, B12, B13, B14 B17-B20, B26-B28, B66, B70
Topology	Star network	Star network	Star network	Star network	Self-Healing Mesh Network	Star network
Transmit Power	Up to +18dBm	RCZ1: 14dBm RCZ2: 22dBm RCZ3: 13 dBm RCZ4: 22dBm	17 dBm at 1 DSSS 17.25 dBm at 11 CCK 13.5 dBm at 54 OFDM	Typ. 14 dBm ± 2 at 802.11b CCK Mode 1M Typ. 12 dBm ± 2 at 802.11g OFDM Mode 54M Typ. 12 dBm ± 2at 802.11n OFDM Mode MCS0 Max 10 dBm ± 2 for BLE	Up to +8 dBm	Up to +23 dBm
Receiver Sensitivity	Up to -136dBm at SF = 12 / 125KHz	-125dBm @600bps 2GFSK	-94.7 dBm at 1 DSSS -87 dBm at 11 CCK -73 dBm at 54 OFDM	Typ. -95 dBm at 1 Mbps Typ. -75 dBm at 54 Mbps Typ. -89 dBm at MCS0 Typ. -89 dBm for BLE	Up to -93 dBm	Up to -127 dBm
Power Requirement	3.3V	3.3V	3.3V	3.3V	3.3V	3.3V
Operating System	mbed OS	mbed OS	TI RTOS	ThreadX mbed OS	mbed OS	mbed OS
Dimension	22 x 30 mm	22 x 30 mm	22 x 30 mm	22 x 30 mm	22 x 30 mm	22 x 30 mm

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Embedded Computing

Embedded Flash Storage

Industrial flash supports 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.



2.5" & 1.8" Industrial SSD

SSDs are designed for industrial/embedded, enterprise server, aviation, defense, and other semi-industrial applications, such as thin clients, POS, and kiosk. SSDs come in iSLC, SLC and MLC types, and support PATA/IDE 44 pin, SATA II (3.0Gb/s), and SATA III (6.0Gb/s).



SATA Slim

SATA Slim is compliant with the JEDEC MO-297 standard form factor and ATA protocol. It does not require drivers and can be configured as a boot device or a data storage device. With a 7+15 pin SATA interface, the SATA Slim supports most platforms with a standard SATA port.



SATADOM

Serial ATA Disk on Module (SATADOM) with exclusive Pin 7 VCC built-in, supports the SATA II and SATA III interface and is available in capacities ranging from 512MB up to 256GB.



ServerDOM

ServerDOM is dedicated to the future of server design. By using ServerDOM as a boot drive, there is more space for hot-swappable data storage.



CFAST

CFAST is suitable for semi-industrial applications. Compliant with the CFAST 2.0 standard, it is designed with a 7+17 pin connector and is SATA compatible. CFAST offers data transfer rates of sequential read up to 560 MB/sec and of sequential write up to 520MB/sec.



mSATA

mSATA is a low-profile interface connector, also known as a Mini-SATA. The connector is similar in appearance to a PCI Express Mini Card interface and is electrically compatible; however, the data signals need a connection to the SATA host controller instead of the PCI-express host controller.



CompactFlash (CF) card

Industrial CompactFlash Memory Card (iCF) complies with the PCMCIA* ATA standard. Designed to replace traditional rotating disk drives, iCF is designed for mobile computing and the industrial work place.



Mini PCIeDOM

Mini PCIeDOM with standard Mini PCIe form factor and PCI Express Gen.1 interface. It is suitable for board maker or SI to design in the product as a boot drive or a storage device. Meanwhile, it supports multiple operation systems and no driver needed.



Embedded Disk Card (EDC)

Embedded Disk Card (EDC) complies with PCMCIA* ATA standards and fits into all platforms with an IDE connector. EDC comes in capacities ranging from 512MB to 256GB and is available in 40-pin and 44-pin connector packages.



M.2

M.2 series pack a lot of performance into a thin, industrial grade form factor. The M.2 series includes both Non-Volatile Memory Express (NVMe) and SATA devices. The NVMe specification is designed specifically for flash devices and can deliver the fastest speeds in the industry.



4

Industrial Panel PC/ Display

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Industrial Panel PC/ Display

All-in-One Panel PC: AFL Series

AFL3 Series with PoE:

- Size: 7" with Intel® Celeron® Processor N3350
- Size: 10.1" /12.1" /15.6" with Intel® Celeron® Processor J3455
- 9 V ~ 30 V wide range DC input with lockable DC jack
- Selectable AT/ATX power mode
- Built-in speakers
- Support **PoE PD IEEE803.2 af/at/bt**
- IP64 compliant front panel



AFL3 Series

- Size: 7" /8.4" / 10.1" /12" /15.6" /18.5" /21.5"
- Intel® Celeron ULT/ J1900/ N2807 Processor
- 7th, 6th Gen Intel® Core™ i7/i5/i3 Processor
- IP65/IP64 front, IPx1 rear cover
- -10°C~50°C extended operating temperature
- 6H PCAP multi-touch
- ABS plus PC plastic light weight hosing
- Digital microphone, 2-megapixel camera, speakers
- Wireless 802.11ac connectivity
- Optional: Bluetooth 4.0
- Optional: 1D/2D barcode scanner
- Optional: 13.56MHz Mifare reader: (ISO 14443A/B,15693)
- Optional: MSR card reader



AFL2 Series

- Size: 7" /8.4" / 10.1" /12" /15.6" /18.5" /21.5"
- Intel® H61 Platform, Intel® Atom™ Cedarview Processor
- LED Light Bar Simulation displays light signals
- Light fanless temperature management
- 9 V ~36V DC wide voltage input
- 6H Anti-scratch Surface
- Optional: EM/ Mifare RFID reader



RISC Based Panel PC

- Size: 7" / 10.1"
- OS: Android 7.1
- CPU: Rockchip RK3399 (Dual-core Cortex-A72 up to 1.8GHz + Quad-core Cortex-A53 up to 1.5GHz)
- Boot Flash: 16G eMMC Nand Flash
- RAM: 2GB LPDDR3-1866



Industrial Panel PC/ Display

All-in-One Panel PC: UTC Series

UTC-200 Series: 10-42" True-Flat, Fanless, Open Frame Panel PC

- Built-in **Intel® Core™ i5-6300U processor**
- Size: 10.1" /15.6" /21.5" /31.5" /42.5"
- 16:9 widescreen display
- Low-power, fanless system design
- Supports both portrait and landscape display modes
- Supports Windows® Embedded Standard 7/8, Windows® 10 IoT Enterprise, Linux Ubuntu 16.04/18.04, and Android 6.0



UTC-300 Series: Stylish, Lightweight, All-in-One Touch Panel PC

- Size: 7.1" / 10.1" (Intel® Celeron® N3350/ Pentium® N4200)
- Size: 11.6" /15.6" /18.5" / 21.5" (Intel® Celeron® J1900/ Core™ i5- 4300U/6300U processor)
- 16:9 widescreen display
- Low-power, fanless system design
- Removable frame design for flexible installation



Colour Options: White Black

Supported OS: Windows Windows Embedded android Linux

UTC-500 Series: Expandable, All-in-One Touch Panel PC

- Size: 10.1" (Intel® Atom™ E3825/ Celeron® N2807/J1900/N3350/ Pentium® N4200 processor)
- Size: 15.6" /21.5" /31.5" (Intel® Celeron® J1900/ Core™ i5-4300U/6300U/Pentium® N4200 processor)
- Size: 42.5" (Intel® Celeron® J1900/ Core™ i5-6300U/Pentium® N4200 processor)
- 16:9 widescreen display
- Low-power, fanless system design
- IP65-rated front panel with antimicrobial glass touchscreen



Supported OS: Windows Windows Embedded android Linux

- 1 Industrial Computing
- 2 Industrial Server & Storage
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- 4 Panel PC/ Display
- 5 Rugged Mobile Computing
- 6 IoT Connectivity
- 7 Industrial Communication
- 8 Remote I/O & Wireless I/O Module
- 9 Industrial RFID

Industrial Panel PC/ Display

Marine Panel PC

ECDIS Series

- 15" /19" /24" /26" screen with P-Cap touch
- **Intel® Core™ i5-5250U**
- Windows 10/8/7
- IEC 60945, DNVGL-CG-0339, IACS E10
- RS-232/422/485, RS-232, two USB 3.0
- 0%~100% backlight brightness dimming control
- Panel mount, VESA mount
- Vibration resistant DNV 2.4 (Class A)
- Wide power input 9~36V DC with isolation
- Front IP66 waterproof and dustproof
- Wide operating temperature -15~55°C



W10IB3S-MRH2

- 10.1", 1280 x 800 with P-Cap touch
- **Intel® Celeron® N2930 Bay Trail-M**
- Windows 10/ 8/ 7
- IEC 60945 Test Report
- 4 GB DDR3L, 64 GB mSATA SSD
- Two RS-422, USB 2.0, Gigabit LAN
- Panel mount, VESA mount
- Vibration resistant DNV 2.4 (Class A)
- Wide power input 9~36V DC with isolation
- Front IP65 waterproof and dustproof
- Wide operating temperature -15~55°C



VR Knob Series

- 10.4~24" screen with resistive touch
- **Intel® Dual Core Atom N2600/ Core i7-3517UE**
- Windows 10/8/7
- IEC 60945, DNV 2.4, IACS-E10 certified
- 4 GB SODIMM DDR3
- VGA, Two USB 2.0
- Two RS-232, RS-232/422/485
- RAM mount, VESA mount
- Vibration, shock resistant DNV 2.4 (Class A)
- Power input 9-36V DC with ignition
- Front IP65 waterproof and dustproof
- Wide operating temperature -15~55°C

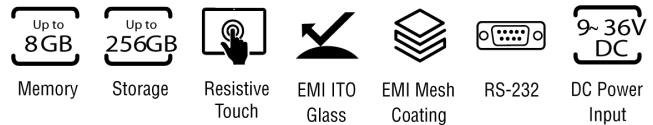


Industrial Panel PC/ Display

Military Panel PC

Console Rack with Intel Celeron® N2930, MIL-DTL 38999/1

- 17~24" screen with AR glass
- **Intel® Celeron® N2930**
- Windows 10/8/7
- 4GB DDR3L 1066/1333
- 64GB mSATA SSD
- USB2.0, USB3.0, VGA
- Two RJ45 Ethernet connectors
- RS-232/422/485
- EMC MIL-STD 461E/F
- Vibration, shock MIL-STD 810F/G
- Power connector MIL-DTL-38999/1
- Power input AC 110~240V
- Console mount, VESA mount
- Front IP65 waterproof and dustproof
- Wide operating temperature -20~60°C



with Intel Core i5-7200U, MIL-DTL 38999/1

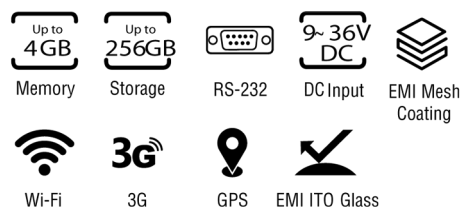
- 17~24" screen with AR glass
- **Intel® Core™ i5-7200U Kaby Lake**
- Windows 10
- 4GB DDR4-2133
- 64GB M.2 B Key SATA II
- Two USB3.0, HDMI
- Two RJ45 Ethernet connectors
- RS-232/422/485
- EMC MIL-STD 461E/F
- Vibration, shock MIL-STD 810F/G
- Power connector MIL-DTL-38999/1
- Power input AC 110~240V

with Intel Core i7, MIL-DTL 38999/3

- 17~24" screen
- **Intel® Core™ i7 4650U**
- Windows 10/8/7
- 4GB DDR3L 1600
- 64 GB mSATA SSD
- Mini PCIe expansion slot
- Connectors MIL-DTL-38999/3
- VGA, RS-232, USB A-Type, LAN
- EMC MIL-STD 461E/F
- Vibration, shock MIL-STD 810F/G
- Power connector MIL-DTL-38999/1
- Power input AC 110~240V

G-WIN Series with Intel® Celeron® N2930

- 8" /10.4" /15" screen with resistive touch
- **Intel® Celeron® N2930**
- Windows 10/8/7
- 4 GB DDR3L 1066/1333
- 64 GB mSATA SSD
- Mini PCIe expansion slot
- USB 2.0, USB 3.0
- HDMI, two RJ45
- RS-232/422/485
- EMC MIL-STD 461E/F
- Vibration, shock MIL-STD 810F/G
- Power connector MIL-DTL-38999/1
- Power input 12V DC
- VESA mount, bracket stand
- Front IP65 waterproof and dustproof
- Wide operating temperature -10~55°C



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- 5 Rugged Mobile Computing
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- 7 Industrial Communication
- 8 Remote I/O & Wireless I/O Module
- 9 Industrial RFID

Industrial Panel PC/ Display

C1D2 and ATEX-Certified Panel PC

19" Aluminum Panel PC

- 19", 1280 x 1024 screen
- **Intel® Core™ i7-4650U**
- Windows 10/8/7
- Class 1, Division 2 & ATEX Zone 2
- 4 GB DDR3L SO-DIMM
- 128GB mSATA SSD
- Projected capacitive touch, optical bonding
- Fanless cooling system
- Aluminum housing
- Touch screen control physical button
- VESA mount
- +9~36V DC wide power input with isolation
- -40°C to 70°C wide operating temperature



15" Stainless Panel PC & Display

- 15", 1024 x 768 screen
- **Intel® Celeron® N2930 Bay Trail-M**
- Windows 10/8/7
- Display configuration
- Class 1, Division 2, ATEX Zone 2, IECEx Zone 2
- Projected capacitive touch, optical bonding
- Fanless cooling system
- Stainless housing
- VESA mount
- +9~36V DC wide power input with isolation
- -20°C to 50°C operating temperature



DIN-Rail Embedded PC

- **Intel® Celeron® N2930 Bay Trail-M**
- Windows 10/8/7
- DIN-Rail mounting
- Class 1, Division 2, ATEX Zone 2
- RS-232/422/485 communication port, switch by jumper
- Digital I/O
- Four Giga LAN
- VGA video output
- One USB 3.0, three USB 2.0
- Fanless, streamlined enclosure
- -20°C to 60°C wide operating temperature



Industrial Panel PC/ Display

Stainless Panel PC

IP69K Series

- 10.4~21.5" screen with P-Cap touch
- **Intel® Celeron® N2930 Bay Trail-M**
- **Intel® Core™ i5-7200U Kaby Lake**
- Windows 10/8/7
- 4 GB DDR3L 1600
- 64 GB mSATA SSD
- USB A-Type, RS-232, RJ45-10/100/1000 Mbps
- VESA mount, yoke mount
- SUS304 stainless steel
- Power input 12V DC, lockable power jack
- IP69K waterproof and dustproof
- Operating temperature 0~45°C



Memory



AR Glass



Glove Mode



Mini PCIe SSD



Storage

IP67 Series

- 10.4~21.5" screen with resistive touch
- **Intel® Celeron® N2930 Bay Trail-M**
- Windows 10/8/7
- 4 GB DDR3L 1600
- 64 GB mini PCIe SSD
- USB Type-A, RS-232, RJ45-10/100/1000 Mbps
- SUS304 stainless steel
- VESA mount, yoke mount
- Power input 12V DC, lockable power jack
- IP67 waterproof and dustproof
- Operating temperature 0~45°C



Memory



2.5" HDD



Resistive Touch

IP65 Series

- 10.4~21.5-inch screen with P-Cap touch
- **Intel® Celeron® N2930 Bay Trail-M**
- **Intel® Core™ i5-7200U Kaby Lake**
- Windows 10/8/7
- 4 GB DDR3L 1600
- 64 GB mini PCIe SSD
- USB Type-A, RS-232, RJ45-10/100/1000 Mbps
- SUS304 stainless steel
- VESA mount, yoke mount
- Power input 12V DC, lockable power jack
- IP65 waterproof and dustproof
- Operating temperature 0~45°C



Memory



AR Glass



Resistive Touch



Glove Mode

1
Industrial
Computing

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Industrial
Server &
Storage

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Embedded
Computing

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Panel PC/
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Rugged
Mobile
Computing

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IoT
Connectivity

7
Industrial
Communication

8
Remote I/O
& Wireless
I/O Module

9
Industrial
RFID

Industrial Panel PC/ Display

Industrial Panel PC

PPC-6000C Series

- 15"/ 17"/ 19" 6th Gen Intel® Core™ i7/i5/i3 Panel PC with selectable Mini-ITX Motherboard
- 6th Gen Intel® Core™ i, up to 45W TDP (socket type)
- True-flat, IP65-rated front bezel
- resistive or optional P-Cap touchscreen
- 2 x expansion slots (1 x PCIe x 4 or 2 x PCI)



PPC-3001 Series

- 15"/ 15.6"/ 21.5" Fanless Panel PC
- Intel® Core™ i5-6300U/ 4300U, 2.4 GHz/ 1.9 GHz, processor
- True-flat, IP65-rated front bezel
- resistive or P-Cap touchscreen
- Wide input voltage range (9~32 VDC, 12~32 VDC)
- Supports 1 x PCIe x 4/ PCI x1 bus expansion
- Built-in isolated RS-422/ 485 with auto flow control

PPC-3001S Series

- 18.5"/ 21.5" Fanless Panel PC
- Intel® Core™ i5-6300U, 2.4 GHz, processor
- True-flat, IP65-rated front bezel with P-Cap touchscreen
- Compact design with solid aluminum alloy enclosure
- Wide input voltage range (12~24 VDC)

Industrial Thin Clients

TPC-xx51T Series

- 5.7"/ 6.5"/ 12.1"/ 15"/ 17" TFT LED LCD
- Intel® Atom™ dual-core E3827, 1.75 GHz, processor
- 4 GB of DDR3L SDRAM (Optional Intel® Celeron™ J1900 processor)
- Wide operating temperature (-20 ~ 60 °C)
- IP66-rated front panel
- true-flat 5-wire resistive touchscreen



TPC-xxWP Series

- 10.1"/ 15.6" TFT LED LCD
- Intel® Atom™ dual-core E3827 (1.75 GHz)
- 4 GB of DDR3L SDRAM
- 7H surface hardness glass widescreen
- P-Cap multitouch

TPC-1840WP/ TPC-2140WP

- 18.5"/ 21.5" TFT LCD Multi-Touch
- AMD dual-core T56E (1.65 GHz) with independent GPU
- 16:9 WXGA/ FHD TFT LED LCD display
- P-Cap multitouch
- Easy maintenance Cfast/ HDD/ mini-PCIe components

Industrial Monitor

DM-F IP65 Industrial Monitor

- Robust IP65 aluminum front bezel
- Aesthetic ultra-thin bezel
- Wide range 9V~36V DC input
- DVI / VGA video input (6" ~ 15.6")
- HDMI / DisplayPort / VGA video input (17" ~ 23.8")
- Resistive single touch (6" ~ 15.6")
- Projected capacitive and resistive touch options (17" ~ 23.8")
- Wide temperature support





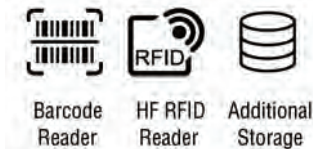
5

Rugged Mobile Computing

Rugged PDA	52
Rugged Tablet PC	53
Vehicle-mounted PC	55

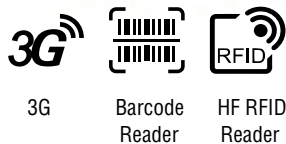
Rugged Mobile Computing

4.3" Rugged Mobile Computer: E430 Series



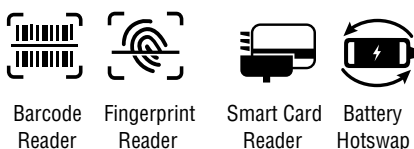
- 4.3", 800 x 480 screen
- P-cap multitouch
- Arm® Cortex®-A53 Quad-core (E430RM4L)
- TI Cortex®-A8 OMAP DM3730 (E430RT)
- **Android 7.0** (E430RM4L), **Win CE 6.0/ WEH 6.5** (E430RT)
- 2 MP webcam
- 8MP rear camera (E430RM4L), 5 MP rear camera (E430RT)
- WWAN, Wi-Fi, BT, GPS
- NFC (E430RM4L)
- Lightweight portability at just 260g
- Micro USB OTG
- 3.7V 3900mAh Li-poly removable battery
- IP65 waterproof and dustproof
- MIL-STD-810G Shock, vibration and drop resistant
- -10°C to 50°C operating temperature

4.3" Rugged Windows Mobile Computer: S430T2 Series



- 4.3", 800 x 480 screen
- Resistive touch
- TI Cortex®-A8 OMAP DM3730
- **WEH 6.5** (S430T2-M), **Win CE 6.0** (S430T2-C)
- 19 keys alphanumeric keypad (S430T2-NKM/NKC)
- Wi-Fi, BT, GPS
- Serial port, mini USB
- 3.7V 5000mAh Li-Ion smart battery
- 5 MP rear camera with LED auxiliary light
- IP67 waterproof and dustproof
- MIL-STD-810G Shock, vibration and drop resistant
- -10°C to 50°C operating temperature

5" Rugged Android Mobile Computer: E500 Series



- 5", 1280 x 720 screen
- P-cap multitouch
- Arm® Cortex®-A53 Octa-core
- **Android 7.0**
- Wi-Fi, BT4.0, GPS, NFC
- Supports two SIM cards
- Micro USB for data transfer
- 2 MP webcam
- 8 MP rear camera with LED
- 3.7V 3900mAh Li-ion removable battery
- IP65 waterproof and dustproof
- MIL-STD-810G Shock, vibration and drop resistant
- -10°C to 50°C operating temperature

Rugged Mobile Computing

7" Rugged Android Tablet: M700DM8 Series



Barcode Reader



Battery Hotswap

- 7", 1280 x 720 screen
- P-Cap multitouch
- Arm® Cortex®-A53 Octa-core
- **Android 7.0**
- 2MP webcam
- 8MP rear camera
- Micro USB OTG
- Micro SD card slot
- 2GB RAM, 16GB eMMC
- Wi-Fi, Bluetooth 4.0, GPS
- Up to 20 hours battery operating time
- IP65 waterproof and dustproof
- MIL-STD-810G Shock, vibration and drop resistant
- -10°C to 50°C operating temperature

8" Rugged Windows Tablet: M800 Series



Barcode Reader



HF RFID Reader



Smart Card Reader



High Capacity Battery 12 hr



M12 Power Connector



4G/LTE



GLONASS



Up to 16GB Memory



Up to 512 GB Storage

- 8" 1280 x 800 screen
- P-Cap multitouch
- **Intel® Celeron® N3160**
- Windows® 10 IoT Enterprise
- 2MP webcam
- 5MP rear camera
- USB 3.0
- Micro HDMI
- Micro SD card slot
- 4GB DDR3L-1600, 64GB m.2 SATA SSD
- Wi-Fi, Bluetooth 4.0, GPS, Galileo
- Up to 7 hours battery operating time
- IP65 waterproof and dustproof
- MIL-STD-810G Shock, vibration and drop resistant
- -10°C to 50°C operating temperature

8" Rugged Windows Tablet: M900P Series



4G/LTE



Barcode Reader



HF RFID Reader



EMV/MSR Reader



Micro SD Card Slot



Computrace TPM 2.0

- 8", 1280 x 800 screen
- P-Cap multitouch
- **Intel® Pentium® N4200 Apollo Lake**
- Windows 10 IoT Enterprise
- 2MP webcam
- 8MP rear camera with autofocus and LED light
- USB 3.0 Type-A, USB 3.0 Type-C
- D-sub for vehicle gateway connection
- Wi-Fi, Bluetooth 5.0, GPS, GLONASS
- IP65 waterproof and dustproof
- MIL-STD-810G Shock, vibration and drop resistant
- -10°C to 50°C operating temperature

1
Industrial Computing

2
Industrial Server & Storage

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Embedded Computing

4
Panel PC/Display

5
Rugged Mobile Computing

6
IoT Connectivity

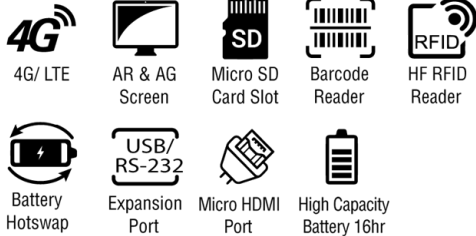
7
Industrial Communication

8
Remote I/O & Wireless I/O Module

9
Industrial RFID

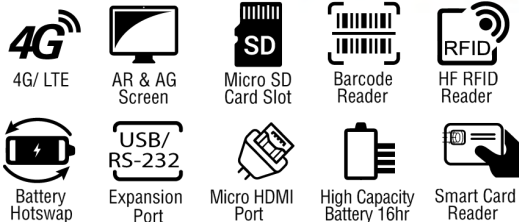
Rugged Mobile Computing

10.1" Rugged Windows Tablet: M101 P/S Series



- 10.1", 1920 x 1200 screen
- P-Cap multitouch
- **Intel® Pentium® N4200 Apollo Lake (M101P)**
- **Intel® Core™ i5-7200U Kaby Lake (M101S)**
- Windows 10 IoT Enterprise
- 2MP webcam
- 8MP rear camera with autofocus with LED flash
- Glove/ Rain/ Stylus mode, support active pen
- Wi-Fi, Bluetooth 5.0, GPS, GLONASS
- USB 3.0 Type-A, USB 3.0 Type-C
- IP65 waterproof and dustproof
- MIL-STD-810G Shock, vibration and drop resistant
- -10°C to 50°C operating temperature

10.1" Rugged Windows Tablet: M101 B Series



- 10.1", 1920 x 1200 screen (M101B)
- 10.1", 1280 x 800 screen (M101BL)
- P-Cap multitouch
- **Intel® Celeron® N2930 Quad-Core**
- Windows 10/8/7
- 2MP webcam
- 5MP rear camera with autofocus and LED flash
- Glove/ Rain/ Stylus mode, support active pen
- Wi-Fi, Bluetooth 4.0, GPS
- USB3.0, 30-pin Combo com (Giga-LAN or RS-232)
- IP65 waterproof and dustproof
- MIL-STD-810G Shock, vibration and drop resistant
- -10°C to 50°C operating temperature

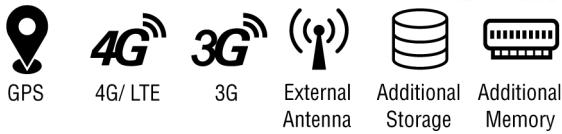
10.1" Rugged Android Tablet: M101 RK/M Series



- 10.1", 1920 x 1200 (M101RK) screen
- P-cap multitouch
- Arm® Cortex®-A53 Octa-core (M101M8)
- Arm® Cortex®-A72 Dual-core + A53 Quad-core (M101RK)
- **Android 7**
- 2MP webcam
- 8MP rear camera with autofocus and LED flash
- Wi-Fi, GPS, BT, NFC
- 3G, 4G LTE
- USB OTG
- IP65 waterproof and dustproof
- MIL-STD-810G Shock, vibration and drop resistant
- -10°C to 50°C operating temperature

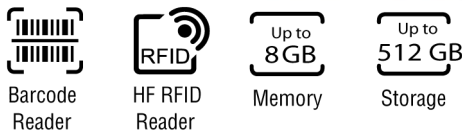
Rugged Mobile Computing

7" Vehicle Mount Computer: FM07



- 7", 1024 x 600 with P-Cap touch
- **Intel® Apollo Lake N3350**
- Windows 10, Ubuntu 16.04
- 64GB M.2 MLC SSD
- Bluetooth 4.0
- Wi-Fi, GPS
- RAM mount, VESA mount
- MIL-STD-810G Shock, vibration and drop resistant
- Power input 9-36V DC with ignition control
- Front IP65 waterproof and dustproof
- Wide operating temperature -20~60°C

7" Hybrid Vehicle Mount Computer: M9020



- 7", 1024 x 600 screen
- Resistive touch with QWERTY keypad
- **Intel® Bay Trail-M N2930**
- Windows 10/8/7
- 2MP webcam
- 5MP rear camera with LED auxiliary light, autofocus
- 4GB DDR3L-1600 RAM, 64GB mSATA SSD
- Wi-Fi, BT4.0, GPS
- USB 2.0, RS-232
- Micro SD card slot (Up to 32GB)
- CID2 (By Request)
- IP67 waterproof and dustproof
- MIL-STD-810G Shock, vibration and drop resistant
- -10°C to 50°C operating temperature

8" Rugged Windows Tablet: M101BK Series

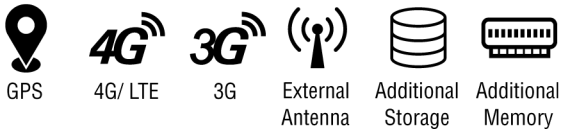


- 8", 1280x800 WXGA screen
- P-cap multitouch with optical bonding
- **Intel® Celeron® N2930 Bay Trail-M**
- Windows® 10 IoT Enterprise
- With Full QWERTY Keypad
- 5MP rear camera
- USB 3.0
- Micro HDMI
- Micro SD card slot
- 4GB DDR3L-1600, 64GB m.2 SATA SSD
- Wi-Fi, Bluetooth 4.0, GPS, Galileo
- Up to 6 hours battery operating time
- Battery hot-swap support
- IP65 waterproof and dustproof
- MIL-STD-810G Shock, vibration and drop resistant
- -10°C to 50°C operating temperature

- 1 Industrial Computing
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- 4 Panel PC/Display
- 5 **Rugged Mobile Computing**
- 6 IoT Connectivity
- 7 Industrial Communication
- 8 Remote I/O & Wireless I/O Module
- 9 Industrial RFID

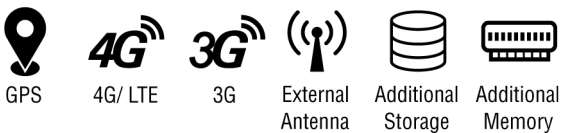
Rugged Mobile Computing

8" Vehicle Mount Computer: FM08



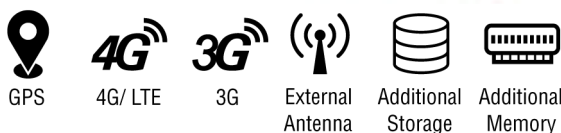
- 8" display with full QWERTY keypad
- **Intel Atom® E3845 Quad-Core**
- Windows 10/8/7
- 4GB SODIMM DDR3L-1600
- 64GB M.2 MLC SSD
- Wi-Fi, GPS, Bluetooth 4.0
- 2MP Webcam
- Screen blanking function for safety
- RAM mount, VESA mount
- Field replaceable grant panel
- MIL-STD-810G vibration, shock resistant
- Power input 10-60V DC with ignition control
- IP65 waterproof and dustproof
- Wide operating temperature -30~50°C

10.4" Vehicle Mount Computer: FM10



- 10.4", 1024 x 768 with resistive touch
- **Intel Atom® E3845 Quad-Core**
- Windows 10/8/7
- 4GB SODIMM DDR3L-1600
- 64GB M.2 MLC SSD
- Wi-Fi, GPS, Bluetooth 4.0
- 2MP Webcam
- Screen blanking function for safety
- RAM mount, VESA mount
- Field replaceable grant panel
- MIL-STD-810G vibration, shock resistant
- Power input 10-60V DC with ignition control
- IP65 waterproof and dustproof
- Wide operating temperature -30~50°C

10.4" Vehicle Mount Computer: FM10A



- 10.4", 1024 x 768 with P-Cap touch
- Freescale™ Cortex® Dual-core
- **Android 6.0, Ubuntu 16.04**
- 1GB LPDDR3
- 16GB eMMC
- Wi-Fi, GPS, Bluetooth 4.0
- 2MP Webcam
- Screen blanking function for safety
- RAM mount, VESA mount
- Field replaceable grant panel
- MIL-STD-810G vibration, shock resistant
- Power input 10-60V DC with ignition control
- IP65 waterproof and dustproof
- Wide operating temperature -30~50°C



6

IoT Connectivity






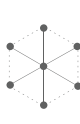

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IoT Connectivity

XBee3 RF Module


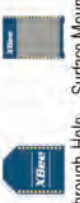












Digi XBee3™ brings a new era of flexibility to mesh networking and new LTE cellular technologies enabling a higher level of abstraction without the lead times and complexities of chip-down designs. From multiple global protocols and expanded programmability to the Digi TrustFence® security framework and future-proof form factor, Digi XBee3 gives you even more options for connectivity. Explore the Digi XBee3 Ecosystem for all the hardware, software and resources to quickly bring connectivity to your ideas.



FAMILY	FREQUENCY/ BAND	PROTOCOL	DESCRIPTION	RF LINE OF SIGHT RANGE	FORM FACTOR	DEVELOPMENT KIT PART NUMBERS	RF DATA RATE	CURRENT DRAW TX/RX	CERTIFIED REGIONS	
Digi XBee3™ Zigbee 3.0	2.4 GHz	 Zigbee® Pro	Zigbee mesh networking, low-cost, low-power	Standard Version 4000ft (1200m) PRO Version 2 Miles (3200 m)	Micro  Surface Mount  Through-Hole 	XK3-Z8S-WZM	250 Kbps	Standard Version 40 mA @ 8 dBm / 15 mA PRO Version 135 mA @ 19 dBm / 15 mA	US, Canada, Europe, Japan, South Korea, Australia, New Zealand, and Brazil (pending)	
			DigiMesh® 							DigiMesh networking, low-cost, low-power
			Proprietary 802.15.4 							Point-to-multipoint device connectivity, Low cost, low power
Digi XBee3™ 802.15.4										
Digi XBee3™ Cellular CAT-1	LTE Bands 2,4,5,12 Verizon Band 13 (Coming Soon)	Verizon, AT&T, Canadian Carriers	Digi XBee3 Cellular Smart Modem, LTE-CAT 1	Cellular Network Coverage	Through-Hole 	XK3-C-A1-UT-U (AT&T) LTE-M XK3-C-A2-UT-U (AT&T) XK3-C-N1-UT-E	10 Mbps Downlink / 5 Mbps Uplink	1Amp / 10uA (Low Power Mode) @3.3V	US and Canada	
			Digi XBee3 Cellular Smart Modem, LTE-M/NB-LoT							LTE-M AT&T, Verizon, and others that support these bands NB-LoT T-mobile, Vodafone and others that support these bands
Digi XBee3™ Cellular LTE-M/NB-LoT	Bands 1, 2, 3, 4, 5, 8, 12, 13, 17, 18, 19, 20, 25, 26, 28 and 39									

IoT Connectivity

XBee RF Module

Family	Frequency	Protocol	Description	RF Line of Sight Range	Form Factor	RF Data Rate	Current Draw Tx/Rx	Hardware Reference # / Chipset(s)	Certified Regions
XBee® Wi-Fi	IEEE 802.11		Wi-Fi 802.11b/g/n with easy provisioning, native Device Cloud features with point-to-multipoint device connectivity	N/A		1 to 72 Mbps	309 mA / 100 mA	S6B SiLabs EFM32LG230 ARM M3 Processor, Atheros AR4100 Transceiver	US, CA, EU, AU, JP
			Low-cost, low-power peer-to-peer mesh, sleeping routers	300 ft / 90m	Through-Hole	45 mA / 50 mA	S1 Freescale MC13212 SoC	US, CA, EU, AU, BR, JP	
XBee-PRO® DigiMesh® 2.4	DigiMesh®		Extended-range peer-to-peer mesh, sleeping routers	1 mile / 1.6 km		250 Kbps	250 mA / 55 mA	S1 Freescale MC13212 SoC	US, CA, AU, BR
			International/"J" variant	3200 ft / 1km	Through-Hole	150 mA / 55 mA			
XBee® 802.15.4	2.4 GHz	Proprietary 802.15.4	Point to multipoint device connectivity	4000 ft / 1.2km		250 Kbps	33mA / 28mA	S2C SiLabs EM857 SoC	US, CA, EU (AU, BR, JP Pending)
XBee-PRO® 802.15.4			Point to multipoint extended range version	2 miles (3.2 km)	Through-Hole	120mA / 31 mA			
XBee® ZigBee			ZigBee mesh networking, low-cost, low-power	4000 ft / 1.2km		250 Kbps	33mA / 28mA	S2C SiLabs EM857 SoC	US, CA, EU, AU, BR, JP
XBee-PRO® ZigBee			Extended-range ZigBee	2 miles / 3.2 km	Surface Mount	120 mA / 31 mA			
XBee® ZigBee - Thread Ready			ZigBee protocol (upgradable to Thread protocol) low cost, low power	4000 ft / 1.2km		250 Kbps	33mA / 28mA	S2D SiLabs EM3587 SoC	US, CA, EU
XBee-PRO® 900HP	Multipoint		Extended-range peer-to-peer mesh, sleeping routers	9 miles / 14.5 km		10 Kbps or 200 Kbps	215 mA / 29 mA	S3B SiLabs EFM32G230F128 ARM M3 Processor, Analog Devices ADF7023 Transceiver	US, CA, AU, BR
			20mW networking XBee module for mission critical applications	9 miles / 14 km	Through-Hole	55 mA / 40 mA			
XBee® SX	900 MHz	Multipoint	1-Watt networking XBee module for mission critical applications	65 miles / 105 km		250 Kbps	900 mA / 40 mA	S10 SiLabs EFM32LG230F256G ARM M3 Processor, Analog Devices ADF7023 Transceiver, LNA/SAW (PRO version: PA-LNA/SAW)	US, CA, AU, (BR, NZ Pending)
XBee-PRO® SX			Low-power peer-to-peer mesh for Europe	2.5 miles / 4 km		10 Kbps or 80 Kbps	48 mA / 27 mA	S8 SiLabs EFM32G230F128 ARM M3 Processor, Analog Devices ADF7023 Transceiver	EU

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IoT Connectivity

Serial Server

External serial servers that provide connectivity to any serial device



Model	PortServer TS®	PortServer TS® MEI	PortServer TS® MEI Hardened	PortServer TS® M MEI	PortServer TS® P MEI	Digi One® SP	Digi One® SP IA
Description	Easy Serial-to-Ethernet Connectivity	RS-232/422/485 Switch Selectable Expansion for Asynchronous Connectivity	Hardened, Rugged Serial Servers for Outdoor Extended Temperatures	Serial Server with Internal Modem	RS-232/422/485 Serial Server with Powered Serial and Ethernet Options	Compact Serial Server	Ethernet Enable Any Industrial Device
Serial Ports	1 / 2 / 4	1 / 2 / 4	1 / 2 / 4	3	2 / 4	1	1
Serial Type	RS-232	RS-232/422/485	RS-232/422/485	RS-232/422/485	RS-232/422/485	RS-232/422/485	RS-232/422/485



Model	Digi One® IAP	Digi One® IA	Digi Connect SP®	Digi Connect® WS	Digi Connect® ES (Extended Safety)	ConnectPort® TS 8/16	ConnectPort® LTS 8/16/32
Description	Multi-Protocol Conversion Capabilities for Automation Integration	Serial Server to Ethernet Industrial Serial Device	Compact Form Factor Serial Server	Extended safety terminal server, 60601 certified	Serial Server with Galvanic Isolation	Compact Serial Server	Ethernet Enable Any Industrial Device
Serial Ports	1	1	1	1 / 4 / 8	4 / 8	8 / 16	8 / 16 / 32
Serial Type	RS-232/422/485	RS-232/422/485	RS-232/422/485	RS-232	RS-232	RS-232 MEI version: RS-232/422/485	RS-232 (16 / 32) MEI version: RS-232/422/485

Console Server

Secure access and management for servers and network devices



Model	Digi CM™ 8	Digi CM™ 16/32	Digi CM™ 48	Digi Passport 8	Digi Passport 16/32/48
Description	Secure Access and Management for Servers and Network Devices			Secure, Reliable In- and Out-of-Band Graphical Console Management	
Serial Ports	8 RJ-45 RS-232	16 or 32 RJ-45 RS-232	48 RJ-45 RS-232	8 RJ-45 RS-232	16, 32 or 48 RJ-45 RS-232
Console Ports	1 RJ-45 RS-232	1 RJ-45 RS-232	1 RJ-45 RS-232	1 RJ-45 RS-232	1 RJ-45 RS-232
Ethernet Ports	1 RJ-45 10/100Base-T	1 RJ-45 10/100Base-T	1 RJ-45 10/100Base-T	2 RJ-45 10/100Base-T	2 RJ-45 10/100Base-T
USB Ports	-	-	-	1 USB 2.0	1 USB 2.0
PC Card Slot	-	One 16-bit PCMCIA	One 16-bit PCMCIA	One 16-bit PCMCIA	One 16-bit PCMCIA

IoT Connectivity

Cellular Gateway



Model	Digi XBee Industrial Gateway	Digi XBee Gateway	ConnectPort X4 Family	ConnectPort X2
Description	Programmable gateway connects Digi XBee enabled devices to remote applications over Cellular or Ethernet	Programmable Digi XBee to IP Gateway with Scalable Device Management	Rugged IOT Cellular Gateways designed for commercial grade and outdoor applications	Industrial-Grade Programmable XBee® to IP Gateways
Data Rate	10/100 Mbps (auto-sensing)	Up to 72.2 Mbps	10/100 Mbps (auto-sensing)	Ethernet: 10/100 Mbps (auto-sensing); Full or half duplex (auto-sensing). Wi-Fi: Up to 11 Mbps w/fallback.
Transmit Power	18 dBm typical (varies by mode, channel and region)	18 dBm typical (varies by mode, channel and region)	Depends on specific model	16 dBm typical
Form Factor	Industrial (Metal)/IP30	Plastic enclosure	Commercial enclosure or NEMA 4X/ IP66 case	Industrial enclosure
Networking Topologies	Digi XBee to IP Gateway	Digi XBee to IP Gateway	Digi XBee to Ethernet & Cellular	Digi XBee to IP Gateway
Wireless Frequency	2.4 GHz	2.4 GHz, 900 MHz	2.4 GHz, 900 MHz, 868 MHz	2.4 GHz, 900 MHz, 868 MHz
Protocols	UDP/TCP, DHCP	ZigBee, UDP/TCP, DHCP	UDP/TCP, DHCP, SNMPv1/v2	UDP/TCP, DHCP, SNMPv1
Python Programming	Yes	Yes	Yes	Yes
Programmable	Yes	Yes (but different definition)	Yes	Yes

USB Connectivity



Model	Hubport	Rapidport/4	AnywhereUSB	Edgeport
Description	Switched USB Expansion Hubs	USB dial-up remote access	Network-attached USB hub	USB-to-Serial Converters
Serial Ports	Connect Edgeport USB-to-serial converter for serial device connectivity	4 x 56K modems with RJ-11 connectors	Anywhere USB/2: NA Anywhere USB/5: NA Anywhere USB/5M: NA Anywhere USB/TS: 4 RS-232 Anywhere USB/14: 1 RS-232	2 or 4 RS-232
Management	Edgeport Utility Program	Edgeport Utility Program	CLI and AnywhereUSB web configuration tool	Edgeport Utility Program
Operating Systems	Linux*, Windows 7, Windows Vista, Windows Server 2008, Windows XP, Windows XP Embedded, Windows NT 4.0**, Windows NT Embedded**, Windows CE, Windows Server 2003, Windows 2000 (*Third-party support only. ** Supported when connecting Digi product.)	Linux, Windows Vista, Windows Server 2008, Windows XP, Windows XP Embedded, Windows NT 4.0, Windows CE, Windows Server 2003, Windows 2000	Windows 8, Windows 7, Windows Vista, Windows Server 2012 R2, Windows Server 2008 R2, Windows Server 2003, Windows XP, Windows XP Embedded	Windows 8, Windows 7, Windows Vista, Windows Server 2012, Windows Server 2008 R2, Windows XP, Windows XP Embedded, Windows CE 5, Windows CE 6 (x86 only), Windows Server 2003 R2, Windows 2000; Linux*; Solaris (SPARC)**. (* Driver support provided by Linux USB maintainers. ** Driver support provided by Oracle.)
USB Ports	4, 7 or 14 USB Type A ports (USB 2.0, 1.1 and 1.0 compatible)	On-board USB hub (Type A downstream connector): Stack and daisy-chain up to 5 Rapidport/4 units; Connect Edgeport USB-to-serial converter for serial device connectivity	Anywhere USB/2: 2 Anywhere USB/5: 5 Anywhere USB/5M: 5 Anywhere USB/TS: 4 Anywhere USB/14: 14	4 (Edgeport Serial 16-port models only)

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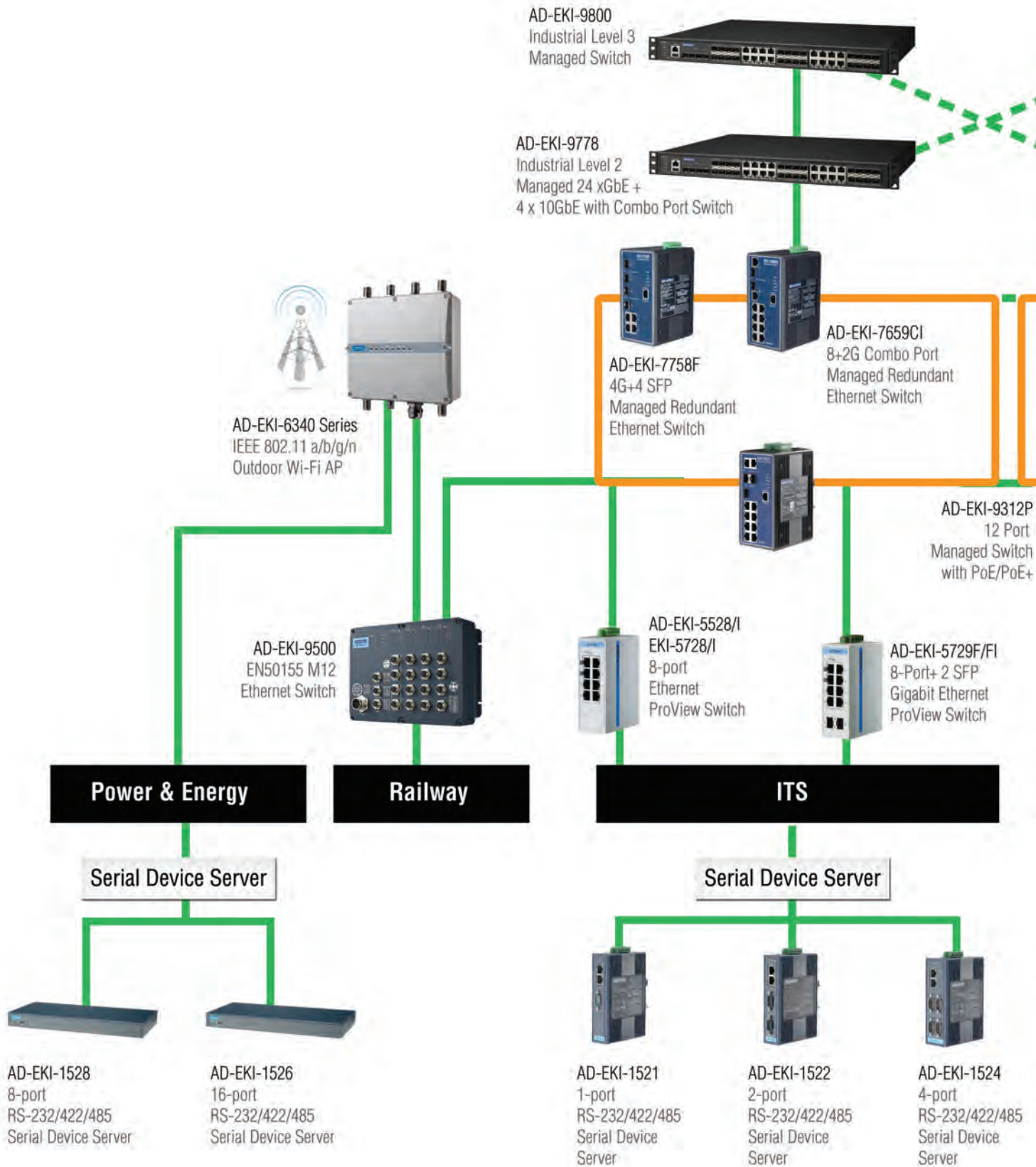
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Industrial Communication

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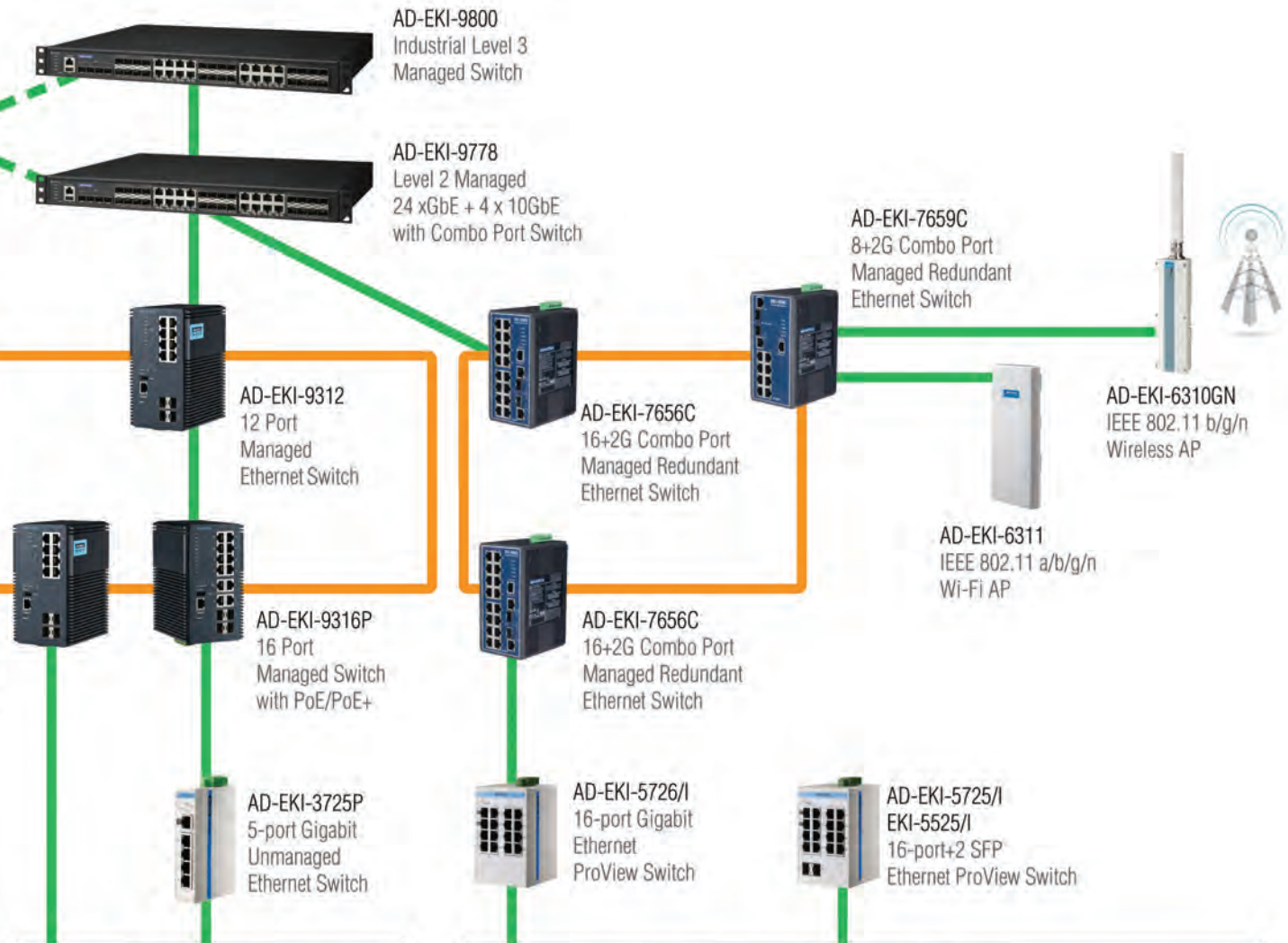
Industrial Communication

Industrial Ethernet devices including managed and unmanaged switches, Gigabit Ethernet switches, PoE switches, protocol switches, EN50155 and IEC61850-3-certified switches, and SFP modules with rackmount and DIN-rail mounting options. Our switches are built for high security and durability and are suitable for use in mission-critical environments.



Industrial Communication

With multiple industrial certifications, our industrial Ethernet devices not only provide the highest network reliability for Ethernet hubs and network switches to meet current industrial communication standards, but are also energy-efficient, durable, and robust. Ethernet devices allow users to expand their industrial network quickly and efficiently, while their rugged industrial-grade design assures reliability and stability.



Surveillance

Factory Automation

Modbus Gateway

Wi-Fi

Cellular



AD-EKI-1221
1-port
Modbus
Gateway

AD-EKI-1222
2-port
Modbus
Gateway

AD-EKI-1224
4-port
Modbus
Gateway

AD-EKI-1361
1-port
RS-232/422/485
to 802.11 b/g/n
WLAN Serial
Device Server

AD-EKI-1362
2-port
RS-232/422/485
to 802.11 b/g/n
WLAN Serial
Device Server

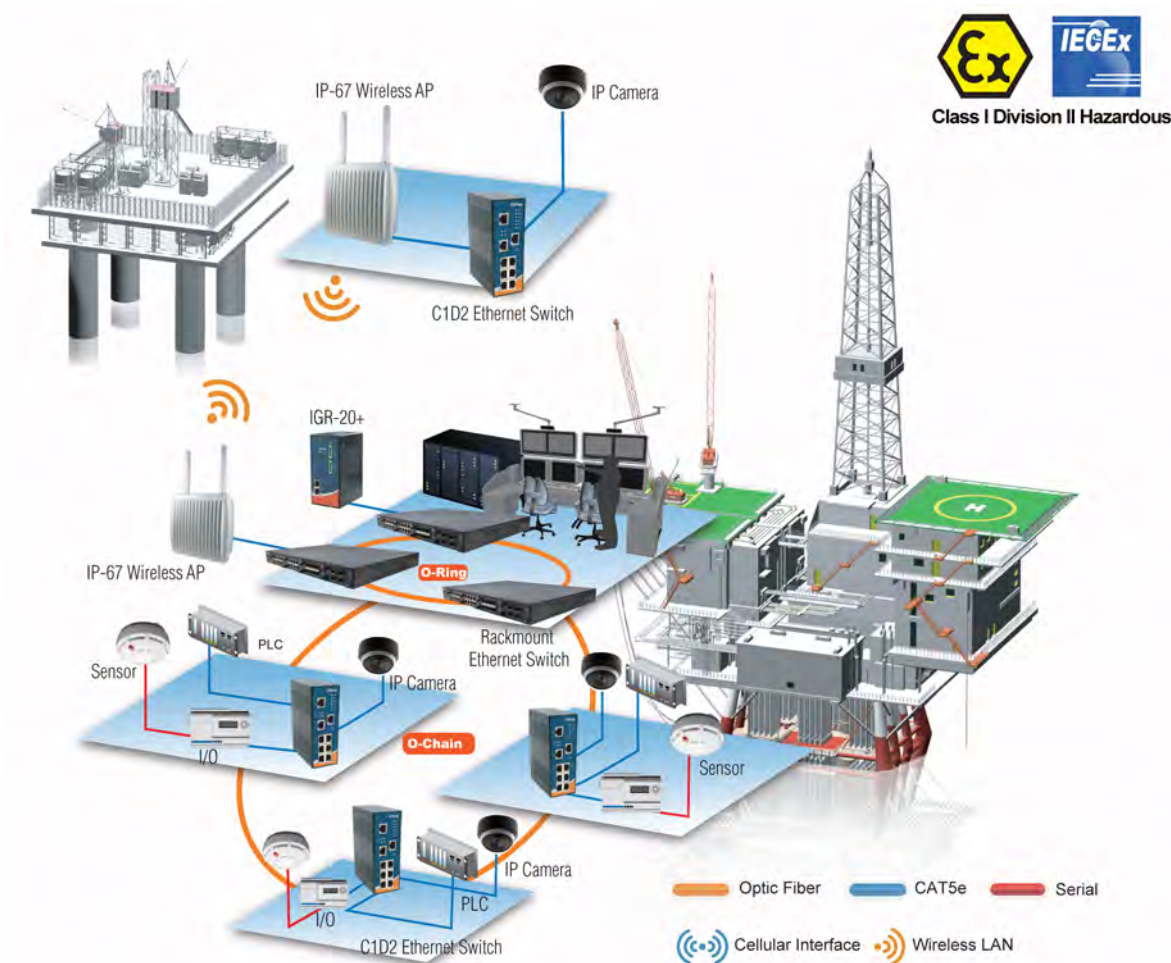
AD-EKI-1321
1-port
RS-232/422/485
to GPRS Serial
Device Server

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Industrial Communication

Application: Oil Field

Industrial Ethernet switch is now used as the communication backbone for monitoring systems used in oil exploration. Digital video surveillance and remote I/O are considered vital for monitoring of pipeline pressure and flow conditions, and ensure effective communication with the central SCADA system. The entire station data is routed from individual pump rooms either through the fiber Ethernet ring backbone or through an industrial wireless access point/ router to a central station.



Key Products:

IES-A3080/ A3062

Industrial C1D2/ATEX 8-port Managed Ethernet Switch



- Open-Ring supports the other vendor's ring technology in open architecture
- Supports standard IEC 62439-2 MRP (Media Redundancy Protocol) function
- Supports Auto Negotiation Speed

RGPS-R9244GP+-P

Industrial Layer-3 28-port Managed Gigabit PoE Ethernet Switch



- Supports Layer 3 static routing, RIP and VRRP function
- Supports standard IEC 62439-2 MRP function
- 24 ports P.S.E. fully compliant with IEEE802.3at standard

IES-A1080/ A1062

Industrial C1D2/ATEX 8-port Unmanaged Ethernet Switch



- IES-A1080 supports 8x10/100Base-T(X) ports
- IES-A1062 series provided 6x10/100Base-T(X) and 2x100FX or 2 x1000X fiber ports
- Supports store and forward transmission

IGPS-R9084GP

Industrial Layer-3 12-port Managed Gigabit PoE Ethernet Switch

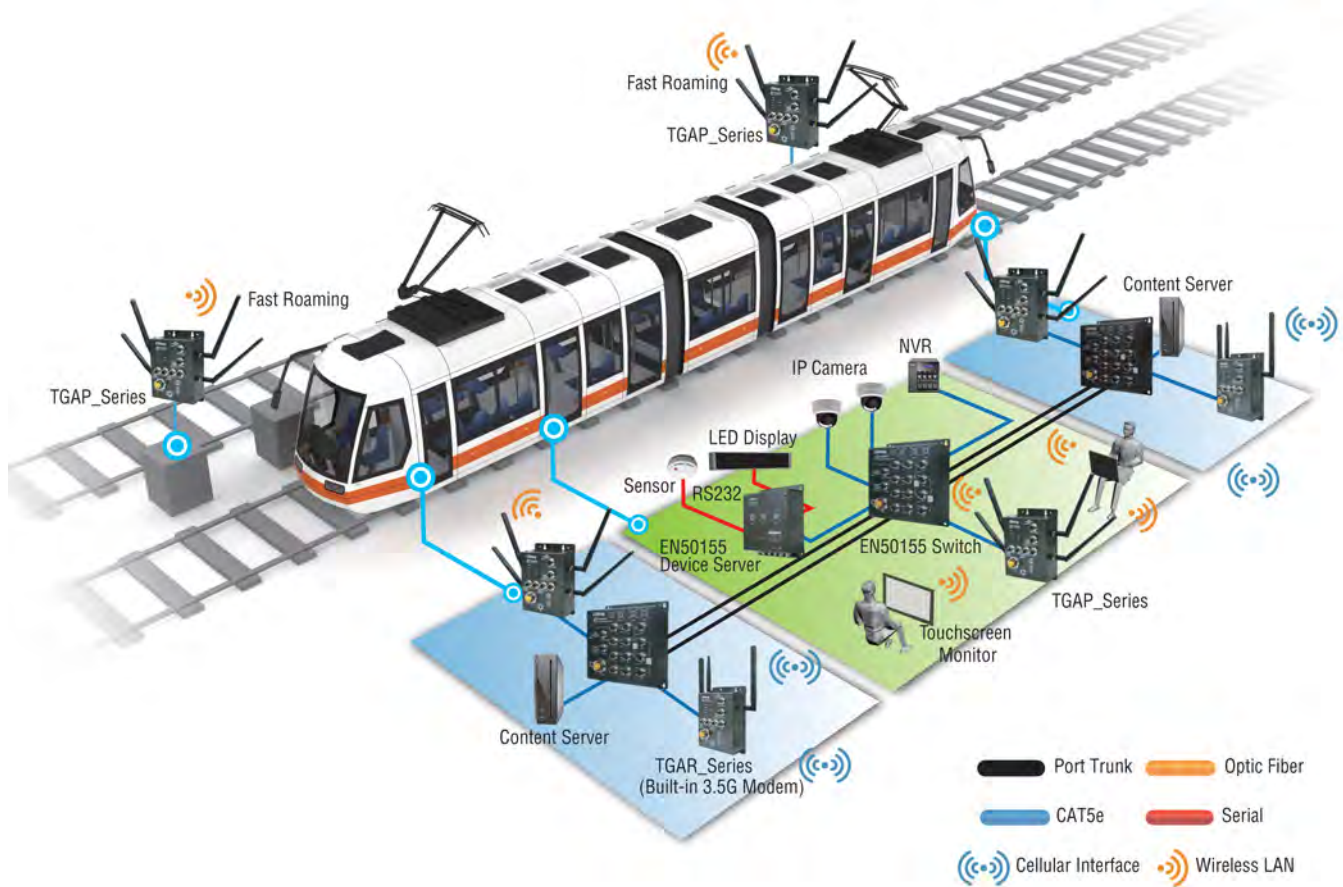


- Supports Layer 3 static routing, RIP and VRRP function
- Supports standard IEC 62439-2 MR function
- 8 ports P.S.E. fully compliant with IEEE802.3at standard, provide up to 30 watts per port

Industrial Communication

Application: Railway

Rolling stock, including trains, high-speed rail, and community trains, is the most important transport between cities and towns. The need of rugged networking capable of handling massive real-time traffic information accurately without interruptions is absolutely necessary. Anewtech provides complete railway network products featuring PoE, outdoors and bypass function with EN50155/50121/IRIS compliance.



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Key Products:

TPS-3162GT-M12-BP1



Industrial EN50155 18-port managed PoE Ethernet Switch

- 16x10/100Base-T(X) P.S.E. and 2x10/100/1000Base-T(X)
- M12 connector
- 1 Pair of built-in hardware-bypass port



TPS-3162GT-M12-BP1

Industrial EN50155 8-port managed Ethernet switch

- 2-pair of built-in hardware-bypass ports (-BP2 model)
- Supports PTP Client (Precision Time Protocol) clock synchronization



TGAR-2062+-3GS/4GS-M12

Industrial EN50155 IEEE 802.11 a/b/g/n 3G/4G LTE GPS Cellular Router

- 2x10/100/1000Base-T(X), M12 connector
- Support up to 300Mbps link speed
- GPS model supports GPS function



TGAP-620+-M12

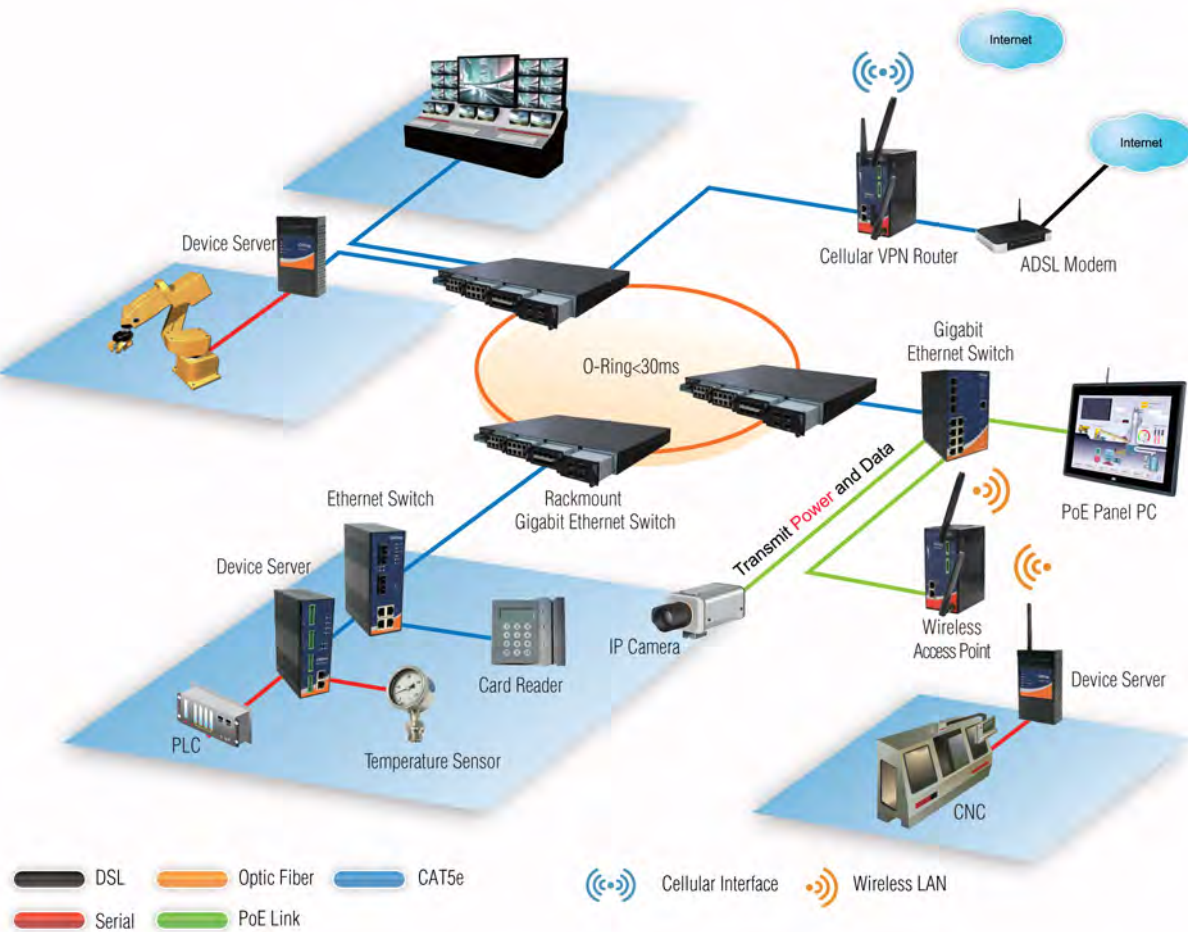
Industrial EN50155 IEEE 802.11 a/b/g/n Wireless Access Point

- 2x10/100/1000Base-T(X), M12 connector
- Support up to 300 Mbps link speed
- 1KV isolation for PoE P.D.

Industrial Communication

Application: Manufacturing Automation

For factory automation, it is necessary to have accurate real-time information of automated production-line at all times. Industrial network communications devices, e.g. PoE Ethernet Switch and Device Server – allowing traditional serial devices (including RS485 type) to be connected to robust Ethernet network. Factory supervisors can get real-time production data faster, thanks to higher data bandwidth along with stable and swift redundant ring backup protection.



Key Products:

IDS-M311

Industrial 1-port Modbus Gateway

- 1xRS-232/422/485 and 1x10/100 Base-T(X)
- Operating Modes: RTU Master, RTU Slave, ASCII Master, ASCII Slave
- Supports up to 16 TCP connections and 32 requests simultaneously



RGPS-R9244GP+-P

Industrial Layer-3 28-port Managed Gigabit PoE Ethernet Switch

- Supports Layer 3 static routing, RIP and VRRP function
- Supports standard IEC 62439-2 MRP
- 24 ports P.S.E. fully compliant with IEEE802.3at standard



IGAP-6620+

Industrial Dual RF in IEEE 802.11 a/b/g/n Wireless Access Point

- Supports up to 300Mbps link speed
- Highly Security Capability: WEP/WPA/WPA-PSK (TKIP,AES)/ WPA2/WPA2-PSK (TKIP,AES)/ 802.1X authentication supported



IGAR-1062+-4G

Industrial IEEE 802.11 a/b/g/n 4G LTE Cellular Router

- Supports up to 300Mbps link speed
- Provide 2 port 10/100/1000Base-T(X) port and 1 SIM card slot
- 4G LTE Modem dial up included





8

Remote I/O & Wireless Sensing Device

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Remote I/O & Wireless Sensing Device

Wireless IoT Sensing Devices

Wireless sensing devices pass data from the edge to different cloud platforms via MQTT and RESTful APIs. For wide area communication, AD-WISE-4000 I/O modules and sensor nodes have been designed with LPWAN, LoRa, NB-IoT/eMTC, 3G/LTE, and IP65-rated features, making them highly suitable for outdoor applications. AD-WISE-2000 sensor devices are all-in-one devices designed for specific applications, whereas AD-WISE-6000 devices are ready-to-use M2I edge devices for machine status monitoring in the field of remote management.

Wireless Sensor and Sensing Devices



Wireless RFID Gateway and Edge Device



- 4-port UHF RFID read/write function
- Node-RED programmable for data read, write, filter, and transfer
- Application-ready function block
- Ethernet/Wi-Fi interface for uplink

- Supports more than 100 PLC drivers by WISE-PaaS/EdgeLink
- Built-in digital I/O, analog I/O, and RS-485
- Wi-Fi, 3G, NB-IoT with mini PCIe communication
- Intelligent logic control with Node-RED

Remote I/O & Wireless Sensing Device

Wireless Sensor Node



AD-WISE-4220: 2.4GHz Wi-Fi Series

- Design for equipment and environment monitoring
- Vertical sensor or I/O integrated
- RESTful API and MQTT for IoT
- Data logger and cloud storage
- HTML5 web interface
- AD-WISE-4220-S231: 2.4 GHz Wi-Fi with Temperature/ Humidity Sensor
- AD-WISE-4220-S214: 2.4 GHz Wi-Fi with 4-ch RTD or Digital Input

Wireless Sensor Node and AP



AD-WISE-42100: LPWAN Series

- Proprietary LPWAN using sub-1GHz wireless frequency
- Vertical sensor or I/O integrated
- RESTful API and MQTT for IoT
- Data logger and cloud storage
- HTML5 web interface
- AD-WISE-4210-AP: LPWAN Wireless to Ethernet AP
- AD-WISE-4210-S231: LPWAN with Temperature and Humidity Sensor
- AD-WISE-4210-S251: Sub-GHz LPWAN with 6-ch DI and RS-485

Wireless Sensor Node



AD-WISE-4610 LoRa Series

- Design for outdoor wide area
- RESTful API and MQTT for IoT
- IP65 with M12 connectors, USB configuration port
- Solar panel rechargeable battery
- Data logger and cloud storage, Optional GPS locating
- AD-WISE-4610-S672: LoRa Outdoor with 2 Serial Port
- AD-WISE-4610-S614: LoRa Outdoor with 4-ch Analog Input
- AD-WISE-3610: Wireless IoT LoRa Network Gateway

Wireless Sensor Node



AD-WISE-4470: 3G / WISE-4471: NB-IoT Series

- Data logger and cloud storage
- Internal antenna design
- IP65 with M12 connectors (WISE-447x-S4xx)
- RESTful API and MQTT for IoT
- AD-WISE-4470-S250: 3G, with 1-port RS-485 and DIO
- AD-WISE-4470-S472: 3G, with 2 Serial Port
- AD-WISE-4471-S250: NB-IoT WSN with 6-ch DI, 2-ch DO and 1 Serial Port

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Panel PC/
Display

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Rugged
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IoT
Connectivity

7
Industrial
Communication

8
Remote I/O
& Wireless
I/O Module

9
Industrial
RFID

Remote I/O & Wireless Sensing Device

Wireless I/O Module

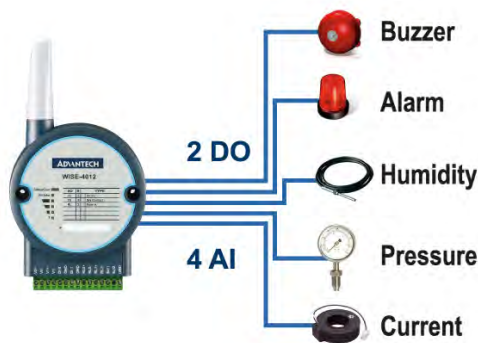


WISE-4000: 2.4 GHz Wi-Fi Series

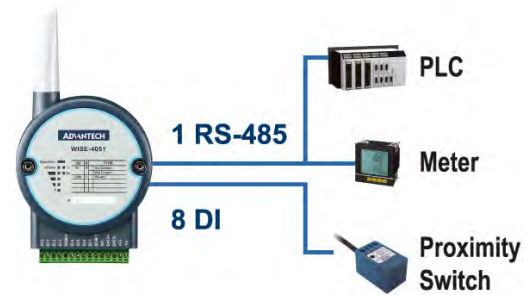
WISE-4000 series are Ethernet-based wireless IoT devices equipped with IoT data acquisition, processing, and publishing capabilities. In addition to diverse I/O, the WISE-4000 series modules provide data pre-scaling, data logic, and data logger functions. Data can be accessed via mobile devices and securely transmitted to the cloud at any time and from any location.

AD-WISE-4012E IoT Developer Kit:

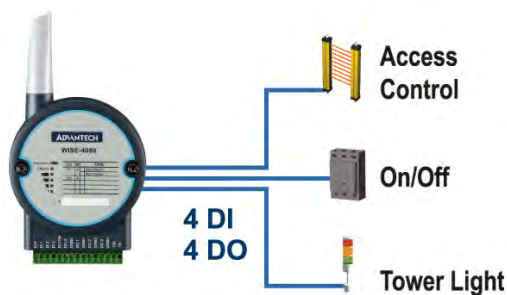
- 2-ch AI + 2-ch DI + 2-ch relay
- 2.4 GHz IEEE 802.11b/g/n WLAN
- Supports Modbus/TCP and mobile device direct access
- Includes an extension board for simulating sensor status, micro
- USB, power cable, screwdriver, and WebAccess/SCADA software



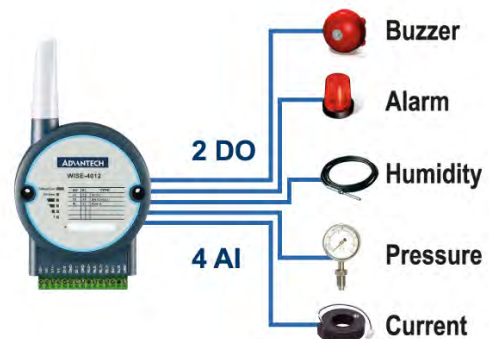
AD-WISE-4012:
4-ch Universal Input and 2-ch Digital Output Wireless I/O Module



AD-WISE-4051:
8-ch Digital Input and 1-port RS-485 Wireless I/O Module



AD-WISE-4050:
4-ch Digital Input and 4-ch Digital Output Wireless I/O Module



AD-WISE-4050:
4-ch Digital Input and 4-ch Relay Output Wireless I/O Module



Better Compatibility

- Universal Input Channel: Voltage, Current, and Digital Input



Superior Specification

- Isolation Protection
- Higher Accuracy
- 10 - 30 VDC Power Input



Smarter Data Collection

- Data Scaling
- Auto push data to private server or drop box

Remote I/O & Wireless Sensing Device

Remote I/O Module

ADAM remote I/O modules, with their cutting edge functional design, have been a consistently reliable figure in the industrial automation field for over 25 years. The versatile product offerings and latest technology updates for this series of modules continue to accelerate the realization of industrial IoT and fulfill the demands of larger scale network infrastructure in an increasingly more diverse range of applications. With RFID and USB technology, users have additional options for configuration and inspection, even when unpowered. Additionally, for larger network infrastructure, ADAM Ethernet-based remote I/O modules use SNMP and MQTT to enhance communication efficiency.

Serial I/O Module



AD-ADAM-4000 Series: RS-485 I/O Module

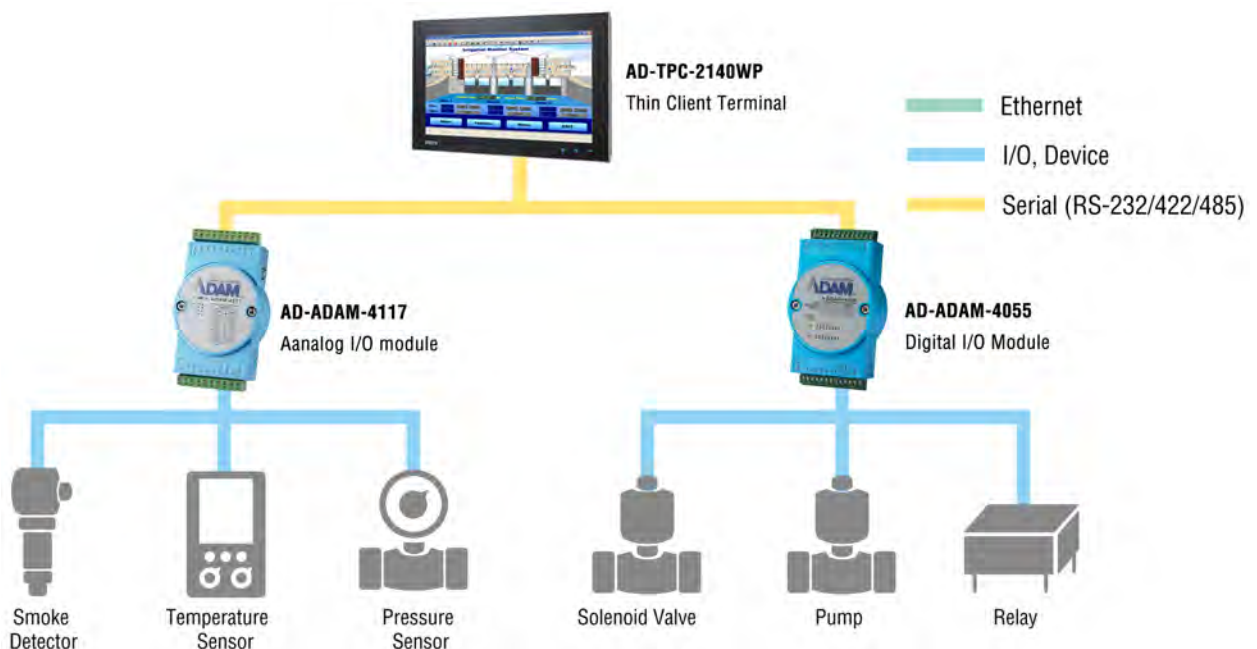
- Watchdog timer
- ± 35 VDC overvoltage protection
- 3,000 VDC voltage isolation
- AD-ADAM-4017+: 8-ch AI module
- AD-ADAM-4024: 4-ch AO/ 4-ch DO module
- AD-ADAM-4015: 6-ch RTD module
- AD-ADAM-4051: 16-ch DI module
- AD-ADAM-4055: 8-ch DI/ 8-ch DO module

Robust Serial I/O Module



AD-ADAM-4100 Series: Robust RS-485 I/O Module

- Wide operating temperature range (-40~85°C/ -40~185°F)
- High protection level: 4-kV surge, 3-kV EFT, 8-kV ESD
- High common mode voltage: 200 VDC
- Burnout detection
- AD-ADAM-4117: Robust 8-ch AI module
- AD-ADAM-4118: Robust 8-ch thermocouple
- AD-ADAM-4150: 7-ch DI/ 8-ch DO module
- AD-ADAM-4168: 8-ch relay module

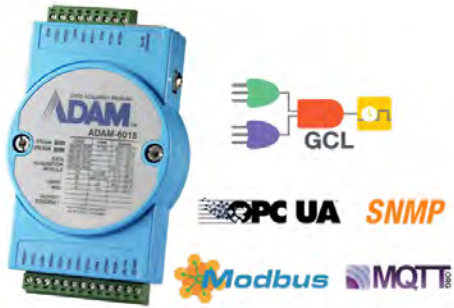


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9	Industrial RFID

Remote I/O & Wireless Sensing Device

Remote I/O Module

Smart Ethernet I/O Module



AD-ADAM-6000 Series: Smart Ethernet I/O Module

- Cloud management: configuration, monitoring, firmware updates
- Embedded web server
- Data stream function to push data
- Supports GCL and P2P functions
- Supports C# .NET and VB.NET

- AD-ADAM-6015: 7-ch RTD module
- AD-ADAM-6017: 8-ch AI/ 2-ch DO module
- AD-ADAM-6050: 12-ch DI/ 6-ch DO Relay module
- AD-ADAM-6060: 6-ch DI/ 6-ch Relay module

Daisy-Chain Ethernet I/O Module



AD-ADAM-6200 Series: Daisy-Chain Ethernet I/O Module

- Cloud management: configuration, monitoring, firmware updates
- Daisy chain connectivity w/ auto-bypass protection
- Supports HTML5, JavaScript, XML
- Supports GCL and P2P functions
- Group configuration capability

- AD-ADAM-6217: 8-ch AI module
- AD-ADAM-6224: 4-ch AO/ 4-ch DI module
- AD-ADAM-6250: 8-ch DI/ 7-ch DO module
- AD-ADAM-6251: 16-ch DI module
- AD-ADAM-6266: 4-ch Relay/ 4-ch DI module

EtherNet/IP and Profinet I/O Module



AD-ADAM-6100 Series: Real-Time Ethernet I/O Module

- AD-ADAM-6100EI series supports EtherNet/IP
- AD-ADAM-6100PN series supports PROFINET protocol
- Daisy chain connectivity
- Coupler-free design
- GSD, L5K, and EDS file-ready
- 2,500 VDC isolation protection

- AD-ADAM-6117EI/PN: 8-ch AI module
- AD-ADAM-6160EI/PN: 6-ch relay module
- AD-ADAM-6150EI/PN: 8-ch DI/ 7-ch DO module
- AD-ADAM-6151EI/PN: 16-ch DI module
- AD-ADAM-6156EI/PN: 16-ch DO module

Industrial RFID

Industrial RFID System

Why RFID?

Identification systems with read and write functionality ensure that the data in each process segment is up to date, all without visual contact. Industrial RFID systems reliably process large volumes of data. The data carriers operate without contact, providing unlimited read/write cycles for flexible and fast communication, even in highly dynamic applications. This allows the wear-free systems to integrate into all controllers and into any industrial environment.

System Components

Industrial RFID systems consist of a data carrier (called a tag), a read or read/write head, and a processor unit. The tag is used to read and store data. The data volume and read/write cycles depend upon the storage medium. Data carriers receive their energy from the read/write device. No batteries are required. The electronics and antenna are integrated into the tag. Their power and frequency define the range.



Industrial HF RFID System



Industrial UHF RFID System

Industrial RFID System BIS M (HF RFID)

In combination with passive data carriers, BIS M provides support for medium ranges up to 400 mm. The system is recommended for close-range asset tracking. Data carriers for direct installation at the workplace are available in a wide array of variants. The high speed, high-memory data carriers make it possible to process data volumes up to 128 kB at up to 212 kbps. Cycle times can be reduced and output rates increased.

BIS M-62 Processors

Applications:

- Automotive assembling
- Paint lines
- Seat assembling
- Power trains
- Electric motor assembling
- Food processing
- Solar panel assembling
- Work-in-process tracking
- Equipment tracking
- Factory automation

Highlights:

- Rugged, industrial design
- Read/write to ISO 15693 and ISO 14443A tags
- C-Macro application builder
- Interchangeable antennas
- Advanced electronics
- Standard software
- configuration interface
- LED diagnostics

Technical Data:

- Dimensions:
- 114x112x45 mm
- 164x112x45 mm (PBS model)
- Power: 10 to 30 VDC
- Operating temperature: -20 to 50 °C
- Storage temperature: -40 to 85 °C
- Air protocol: ISO 15693; ISO 14443A
- RF frequency: 13.56 MHz
- Compliance: FCC, CE
- Protection: IP 65



	Connectivity
BIS00ZJ	RS232 up to 115.2 Kbps
BIS00ZH	RS232 up to 115.2 Kbps and I/O connector
BIS00ZL	Connect to Subnet16
BIS00ZK	Connect to Subnet16 and I/O connector
BIS00ZE	DeviceNet direct connection
BIS00ZC	Direct Connect to TCP/IP, Ethernet/IP, Modbus/TCP
BIS00ZA	Direct Connect to TCP/IP, Ethernet/IP, Modbus/TCP and I/O connector
BIS00ZF	Profibus direct connection

Industrial RFID

Industrial RFID System BIS M (HF RFID)

BIS M-37 Antennas

Applications:

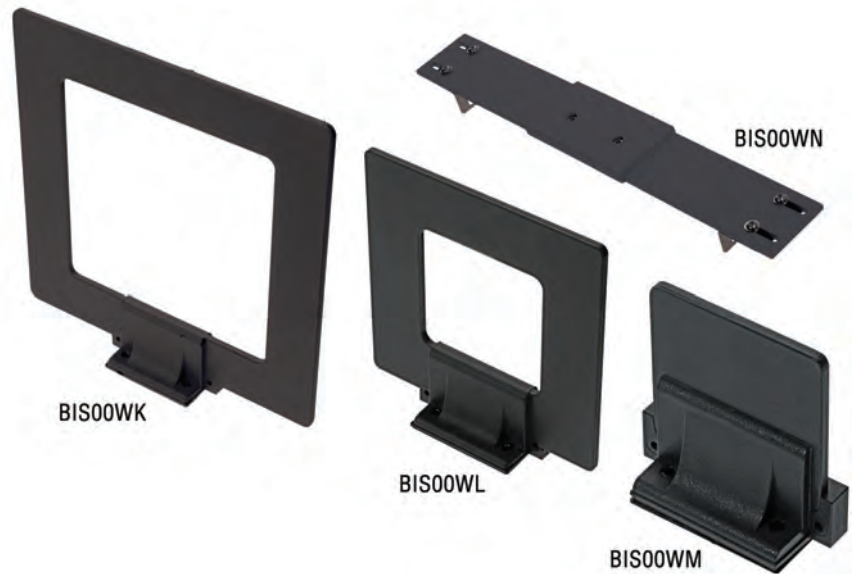
- Automotive assembling
- Paint lines
- Seat assembling
- Power trains
- Electric motor assembling
- Food processing
- Solar panel assembling
- Work-in-process tracking
- Equipment tracking
- Factory automation

Highlights:

- Any BIS M-37 model can be used with any BIS M-62 processor

Technical Data:

- Operating temperature: -20 to +50 °C
- Storage temperature: -40 to +85 °C
- Compliance: FCC, CE
- Protection: IP 65



Models	Highlights	Dimension
BIS00WM	Read/write range up to 250 mm on air	112x100x6 mm
BIS00WL	Read/write range up to 380 mm on air	200x200x6 mm
BIS00WK	Read/write range up to 450 mm on air	300x300x6 mm
BIS00WN	Metal mount conveyor antenna	300x300x6 mm



BIS M-410/411 Read/Write Compact Processors

Applications:

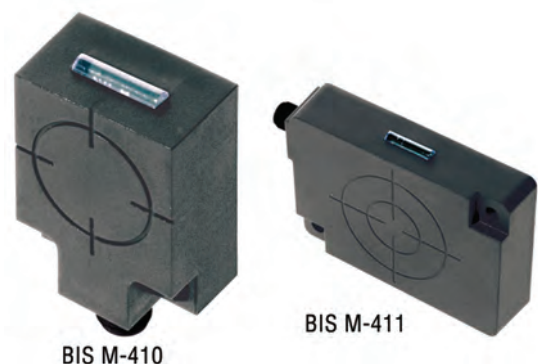
- Pharmaceutical automation
- Packaging machines
- Electronics manufacturing
- Hard disk drive manufacturing
- Work-in-process
- Tool tracking

Highlights:

- Integrated antenna
- Compact, integrated design
- C-Macro application builder
- High read/write ranges
- Standard software configuration interface
- BIS M-411 can be mounted directly on metal surfaces

Technical Data:

- Dimensions:
 - 56x40x24 mm (BIS M-410)
 - 105x73x24 mm (BIS M-411)
- Power: 10 to 30 V DC
- Operating temperature: -20 to +50 °C
- Storage temperature: -40 to +85 °C
- Air protocol: ISO 15693; ISO 14443A
- RF frequency: 13.56 MHz
- Compliance: FCC, CE, TELEC
- Protection: IP 67



Models	Highlights	Connectivity
BIS00W2	Read/write range up to 80 mm on air	RS232 up to 115.2 Kbps
BIS00W1	Read/write range up to 80 mm on air	Connect to Subnet 16™
BIS00W4	Read/write range up to 80 mm on air	USB
BIS00W3	Read/write range up to 80 mm on air	RS422 up to 115.2 Kbps
BIS00W6	Read/write range up to 150 mm on air	RS232 up to 115.2 Kbps
BIS00W5	Read/write range up to 150 mm on air	Connect to Subnet 16™
BIS00W8	Read/write range up to 150 mm on air	USB
BIS00W7	Read/write range up to 150 mm on air	RS422 up to 115.2 Kbps



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Industrial RFID

Industrial RFID System BIS U (UHF RFID)

BIS U uses electromagnetic waves in the ultra-high frequency range (UHF) 865...928 MHz. Using passive data carriers, this system enables RFID solutions with typical ranges up to 6m. BIS U is ideal for material flow control and asset tracking (track and trace) in logistic applications. Many data carriers can be detected simultaneously by an antenna (multi-tagging) for a completeness check.

BIS U-62 Processors

Applications:

- Automotive assembling
- Paint lines
- Seat assembling
- Power trains
- Machine assembling
- Work-in-process tracking
- Equipment tracking

Highlights:

- Rugged, industrial design
- Class 1, Gen 2 RFID Standard
- C-Macro application builder
- Advanced electronics
- Standard software configuration interface
- LED diagnostics



Technical Data:

- Dimensions: 164x112x45 mm
- Power: 10 to 30 V DC
- Operating temperature: -20 to +50 °C
- Storage temperature: -40 to +85 °C
- Protection: IP 65

EU	U.S.	Connectivity
BIS00Z5	BIS00Z3	RS232 up to 115.2 Kbps
BIS00Z9	BIS00Z7	Connect to Subnet16
BIS00Z1	BIS00YZ	Direct Connect to EthernetIP, TCP/IP, Modbus TCP
BIS00Z4	BIS00Z2	RS232 up to 115.2 Kbps with I/O connection
BIS00Z8	BIS00Z6	Connect to Subnet16 with I/O connection
BIS00Z0	BIS00YY	Direct Connect to EthernetIP, TCP/IP, Modbus TCP with I/O connection



UHF Antennas

The frequency ranges for UHF systems in dependent on the region of use. Each respective country defines which frequencies are permitted. Therefore, country-specific versions of UHF antennas and processor units are available. The power at the antenna connection can be adjusted easily using the processor unit. There are a wide variety of accessories for simple integration at all operation locations.

Applications:

- Use with BIS U processor
- Use with connection cable:
 - 1 m BAM01HL
 - 2 m BAM01HM
 - 5 m BAM01HN
 - 10 m BAM01HP

Highlights:

- Circular polarization to allow any tag orientation
- High front-to-back signal ratio

Technical Data:

- Operating temperature: -20 to +55 °C



Models	Highlights	Dimensions
BIS00U0	FCC-approved frequency range	271x271x42.5 mm
BIS00TZ	ETSI (EU) approved frequency range	271x271x42.5 mm
BIS00TY	FCC-approved frequency range	133x133x18.4 mm
BIS00P0	ETSI (EU) approved frequency range	133x133x18.4 mm



Industrial RFID

HF and UHF Tags

Highlights:

- All tags are passive, durable and R/W
- Extreme durability and resistance under mechanical and thermal stress conditions
- Worldwide RFID Standard ISO 15693, ISO 14443A
- Range of sizes fits any applications
- Very small tags with high memory
- Mount on or embed into metal
- UHF Class 1, Gen. 2 RFID Standard
- Available in standard and high temperature version
- Rugged tags for harsh environments
- High user memory version (database on board)

Applications:

- Automotive assembling
- Paint lines
- Seat assembling
- Power trains
- Electric motor assembling
- Food processing
- Solar panel assembling
- Work-in-process tracking
- Equipment tracking
- Factory automation
- Embed into products and product carriers
- Electronics
- Machine assembling

HF Tags



	PCB (printed circuit board)		ENC (encapsulated)		HT (high temperature)	
Temperature range	-40 to 85°C		-40 to 85°C		-40 to 220°C	
112 Bytes NXP ICODE SLI ISO15693	BIS00WZ	Ø 7×1.5 mm	BIS00YL	Ø 8×5 mm	BIS00YE	Ø 25×5 mm
	BIS00WW	Ø 22×1.5 mm	BIS00YF	Ø 25×5 mm	BIS00Y4	51.5×51.5×6.5 mm
	BIS000WT	Ø 22×3 mm	BIS00Y5	51.5×51.5×6.5 mm	BIS00Y1	128×52×11 mm
	BIS00WP	58×38×1.5 mm	BIS00W9	128×52×11 mm		
736 Bytes NXP Mifare ISO14443A	BIS00WU	Ø 22×1.5 mm	BIS00YJ	Ø 8×5 mm	BIS00YA	Ø 25×5 mm
			BIS00YH	Ø 12×5 mm	BIS00Y7	Ø 50×5 mm
			BIS00YC	Ø 25×5 mm		
			BIS00Y8	Ø 50×5 mm		
1 KBytes Infineon ISO15693	BIS00WY	Ø 7×1.5 mm	BIS00YK	Ø 8×5 mm	BIS00Y2	51.5×51.5×6.5 mm
	BIS00WR	12×12×1.5 mm	BIS00Y3	51.5×51.5×6.5 mm		
2 KBytes Fujitsu ISO15693	BIS00Y0	Ø 7×1.5 mm	BIS00Y6	51.5×51.5×6.5 mm		
			BIS00Y9	Ø 30×10 mm		



UHF Tags



	PCB (printed circuit board)		ENC (encapsulated)		HT (high temperature)	
Temperature range	-40 to 85°C		-40 to 85°C		-40 to 220°C	
512 Bits NXP UCODE G2XM EPC-C1G2			BIS00WH	51.5×51.5×6.5 mm	BIS00WF	51.5×51.5×6.5 mm
			BIS00WE	128×52×11 mm	BIS00WC	128×52×11 mm



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Industrial RFID

Gateways BIS Z-GW

The gateway is used for point-to-point or bus connection. It is connected directly using the serial interface of a host computer (RS232) or a suitable bus interface. The Subnet16™ bus architecture supports a subnet of up to sixteen nodes using a RS485 interface. Can only be used with read/write heads with integrated processor unit and HF antenna.

Applications:

- Automotive assembling
- Paint lines
- Seat assembling
- Power trains
- Machine assembling
- Work-in-process tracking
- Equipment tracking

Technical Data:

- Dimensions: 89×76×32 mm
- Protection: IP 31
- Connectors: M12
- Power: 10...30 V DC by net
- Operating temperature: 0 to 50 °C
- Enclosure: 304 stainless steel



Highlights:

- Supports up to 16× BIS M-410/411/62 or BIS U-62_ processors
- Extends connectivity for compact devices such as BIS M-410/411
- Supports the 16-Node, Subnet16 network
- Full range of IP-rated cables and accessories
- Plug-and-play node replacement
- LED diagnostics

Models	Connectivity
BAE00JM	Connect to TCP/IP networks
BAE00JJ	Connect to TCP/IP, Ethernet/IP and Modbus/TCP
BAE00JL	Connect to RS232
BAE00JH	Connect to DeviceNet™
BAE00JK	Connect to Profibus



Vision Solutions BVS

Why a vision sensor?

Using image processing, vision sensors ensure a reliable fault check and quality inspection. This allows a vision sensor to monitor multiple characteristics of a part using image-based visual inspection. The same sensor can also read barcodes and data matrix codes reliably. Prompt format changes can be carried out at any time. Even during an ongoing process. This guarantees maximum flexibility and the highest quality products for users.

Advantages of the vision sensor BVS E:

- A vision sensor replaces many different sensors
- Flexible configuration
- Easy to use; PC software for all sensor types
- Robust and industrial-grade
- Easy and flexible installation
- Low costs and fast ROI



Model		BVS E – Identification	BVS E – Standard	BVS E – Advanced	BVS E – Universal
Bus interfaces	TCP/IP	■		■	■
	RS232	■			■
Feature	Basic tools for fault detection	■	■	■	■
	Reading barcodes	■			■
	Reading data matrix codes	■			■
	360° detection of codes	■			■
	360° detection of parts			■	■
Typical detection rate		Up to 40 Hz	15 Hz	Up to 40 Hz	Up to 40 Hz
Working distance	50...1000 mm	■	■	■	■
	180...1000 mm	■		■	■
Illumination	LED, red light	■	■	■	■
	LED, infrared	■			■
Degree of protection per IEC 60529		IP 54	IP 54	IP 54	IP 54
		-10...+55 °C	-10...+55 °C	-10...+55 °C	-10...+55 °C

ADVANTECH 

WISE-PaaS

IoT Edge Intelligence

WebAccess/SCADA

WebAccess/HMI




WebAccess/SCADA

WebAccess/SCADA is a 100% web-based SCADA software solution/IIoT platform with open interfaces for developing IoT applications aimed at various vertical markets.



WebAccess/HMI

WebAccess/HMI is powerful yet intuitive software to create total solutions for HMI products. WebAccess/HMI Designer is proven in many application fields and is an easily integrated development tool.



WebAccess/CNC

WebAccess/CNC is a core software solution for networking CNC machines. Leveraging the web-based architecture of the WebAccess/SCADA platform,



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