Advantech's Embedded Automation Computers

Construct Automation Solutions with Trusted Domain-Focused Platforms

- Machine Automation
- Factory Automation
- Process Automation
- Oil & Gas Applications
- Water Treatment
- Environmental Monitoring
- Building Automation
- Intelligent Transportation

AMC

ADVANTECH Premier Partner

Enabling an Intelligent Planet

Vertrieb durch AMC

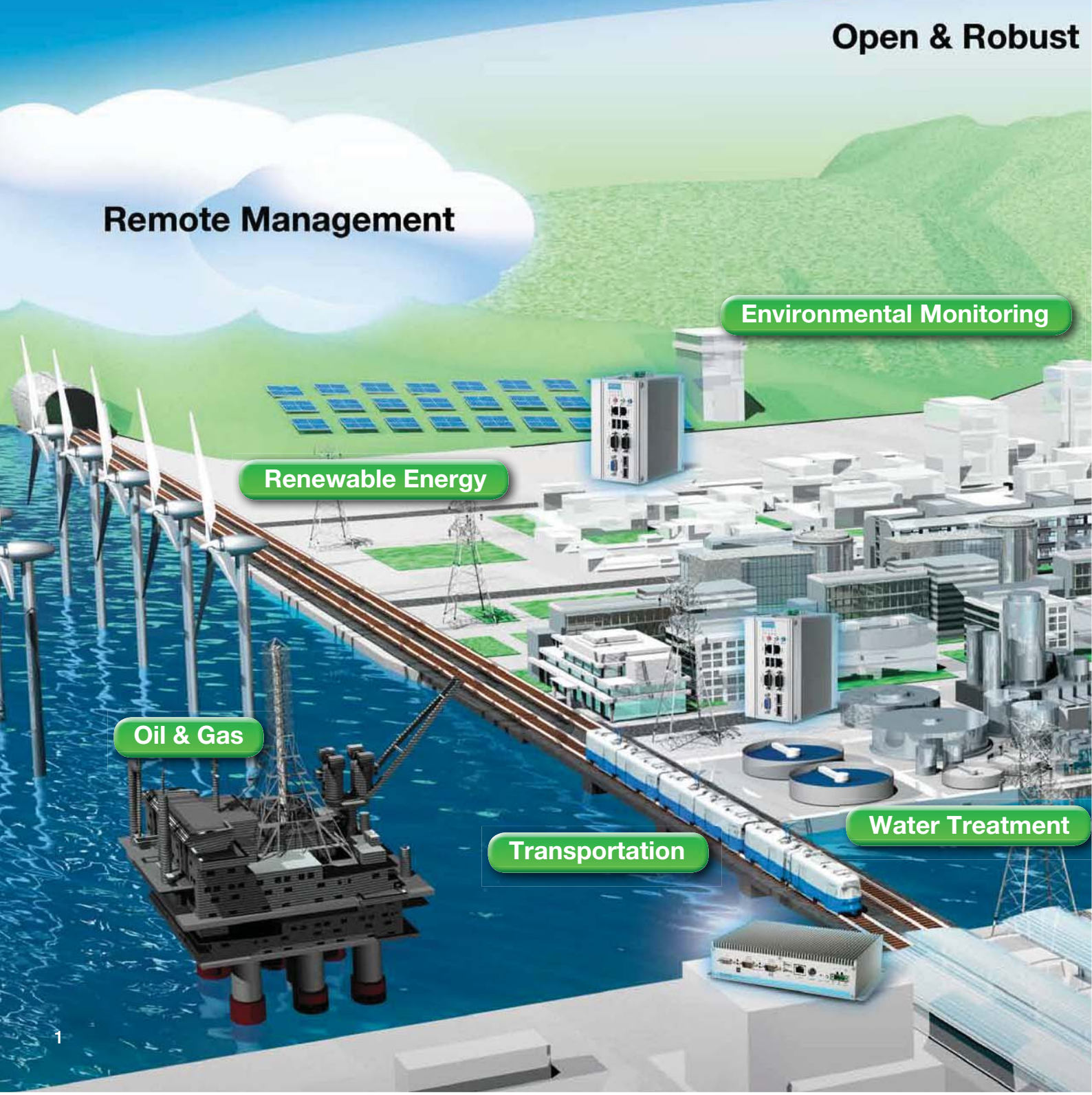
AMC – Analytik & Messtechnik GmbH Chemnitz

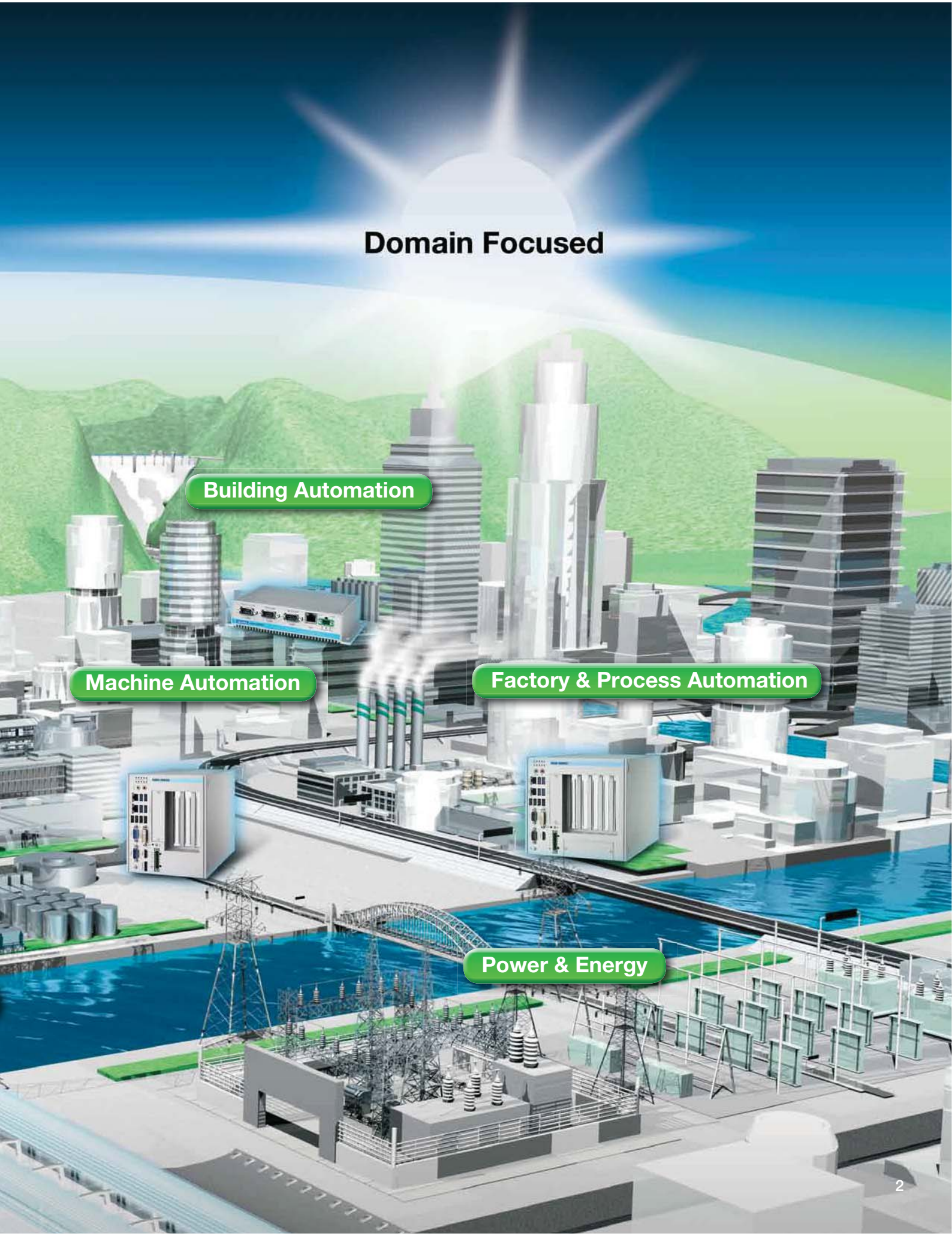
Heinrich-Lorenz-Str. 55
09120 Chemnitz
E-Mail: info@amc-systeme.de

Tel.: +49/371/38388-0
Fax: +49/371/38388-99
Web: www.amc-systeme.de

Designed to Meet Domain Needs, Engineered for Harsh Environments

Advantech's Embedded Automation Computers have been designed to fulfill the needs of mission-critical automation applications. Their embedded design, industrial features and advanced open computing technology with remote management capability deliver robustness, reliability and flexibility to satisfy customers who are looking for a rugged & compact automation platform with domain features and certification for their target applications.




Domain Focused
Building Automation
Machine Automation
Factory & Process Automation
Power & Energy

Advantech's Embedded Automation Computers Are Much More Than Just Fanless Box PCs

Domain Certification

Multiple I/O and Expansion

Fanless and Cableless

Robust Design

Remote Management

Advantech's Embedded Automation Computer Product Lines

UNO-1000 Series

DIN-rail Automation Computers for Control Cabinets

DIN-rail Controller Platforms with Class I, Division 2 Certification

Advantech's UNO-1000 Series are compact and DIN-rail mounted fanless industrial automation computers. They feature RISC-based to Intel® Atom™ processors with a wide operating temperature range (up to 75°C), and are suitable as communication controllers in protocol converter applications and in mission-critical environments.

UNO-2000/2100 Series

Surface Mount Compact Automation Computers

Scalable, Low Power Consuming Platforms to Deliver High-performance Computing and Communications

Advantech's UNO-2000/2100 series are fanless surface mounted industrial automation computers. High-performance Intel® processors up to Core i7 which support multiple I/Os. They feature a complete range of computing power for a wide array of applications. Different expansion capabilities such as PC/104+ and Mini PCIe slots also allow users to add third party I/O modules.

UNO-3000 Series

Wallmount Automation Computers with PCI/PCIe Expansion

Front Accessible, High-performance Platforms for Machine Automation Applications

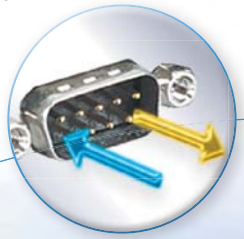
Advantech's UNO-3000 series are fanless wallmounted front accessible industrial automation computers with PCI/PCIe expansion. They feature a wide range of computing power from Intel® Atom™ N270 to Intel® Core™ i7 2655LE processors. Their PCI/PCIe expansion capability allows users to add third party I/O modules for a variety of applications.

Reliable Embedded Architecture

Advantech's fanless Embedded Automation Computers are the best choice for automated applications in harsh working environments. Their embedded designs also include battery-backup SRAM to ensure data storage in case of power failure. Additionally they have been designed as energy saving products, which will save money while helping the planet. With complete Microsoft® Windows® Embedded Solutions, they are highly reliable for any mission-critical automation application.

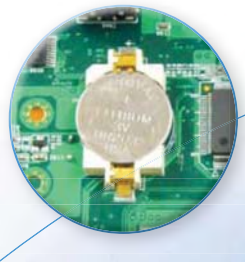
COM Driver Enhancement

Advantech's Embedded Automation Computers use their own advanced serial communication drivers, which are more time-efficient than standard drivers. The drivers also support any-baud-rate functions for any serial device with special baud rate.



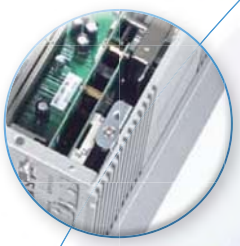
Battery-backup SRAM

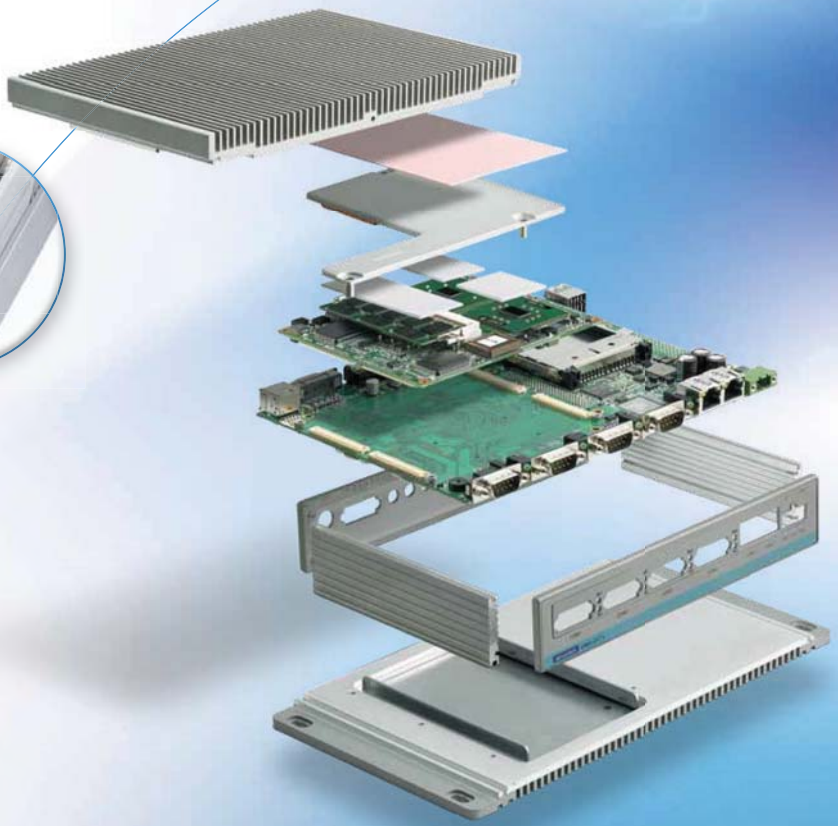
The onboard battery-backup SRAM saves runtime process data in the event of a power failure. The SRAM can also act as a data buffer that helps to reduce CF access time and extend CF lifetime.



Fanless Design

Advantech's Embedded Automation Computers are robust computers without rotating parts such as CPU fans, system fans, power supply fans or HDD. The fanless design significantly increases reliability. extends MTTR, and reduces maintenance efforts. As a result, you don't need to worry about CPU coolers or HDD failures, even in dusty environments.





Wide Temperature

Every Embedded Automation Computer is equipped with a tailor-made thermal design for its onboard CPU, RAM and ICs.

Robust and Reliable Design

With many years of field experience, we continue to improve our products to satisfy automation users' desires. In response to users' needs, Advantech's Embedded Automation Computers provide LAN redundancy teaming function, to prevent information transmission problems when Ethernet is not working. Their tailor-made thermal designs also allow them to operate under a wide temperature range. With IP40 Certification and proprietary enhanced serial communication drivers, Advantech's Embedded Automation Computers are designed to be robust, reliable and flexible in order to fulfill the needs of industrial automation users.

LAN Redundancy (Teaming)

Embedded Automation Computers support the teaming function. When Ethernet is not working, another port will immediately take over the transmission job.

IP40 Ingress Protection

Embedded Automation Computers are IP40 certified. With ingress protection, users can use the computers in dusty environments without reliability concerns.

Patented Serial Communication

Supports not only RS-232/422/485 selection and RS-485 auto-flow control, but also supports many other robust features, such as isolation, EFT protection, and over-voltage protection.

Industrial Power Design

9 ~ 36 V_{DC} Wide Power Input with reverse power polarity protection and ground isolation between chassis and system.

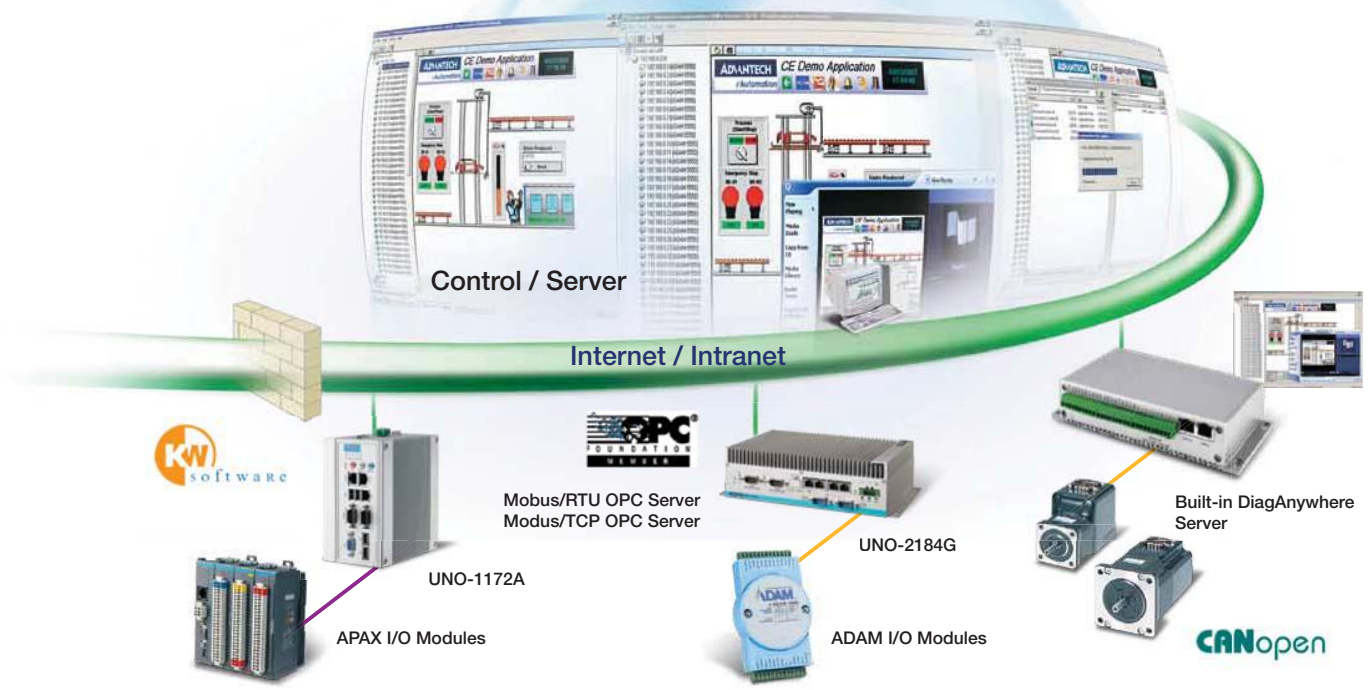
Value-Added Design for Automation Control

We not only make hardware more robust, but also provide value-added software to make it more intelligent.

Advantech DiagAnywhere Utility

Remote Management Software

- Monitoring & Control
- File Upload & Download
- Screen Snapshot
- Device Grouping
- Screen Recording



Fieldbus Master Support

Fieldbus is an industrial network system for real-time distributed control. To be an embedded automation computer, this added value will open a door to the critical control applications. We support the following protocols:

CANopen
Modbus-IDA
EtherCAT
EtherNet/IP
PROFINET INDUSTRIAL ETHERNET
PROFIBUS PROCESS FIELD BUS

Software Solution Partners

KW software

SoftLogic Solution Powered by KW Software

Advantech's Programmable Automation Controller solution leverages KW Software's Multiprog and ProConOS as the single developing tool and SoftLogic control kernel.

POWERED BY Wonderware

Certified Platform by Wonderware

Wonderware software support allows automation computers to work as HMIs or control nodes. With the provided VESA mounting kit, these computers can be integrated with panel monitors, such as FPM series. With support for touchscreen controllers under WinCE, users can operate the systems through touch. Without the monitor, they can also be a control node for programmed control logic.

ACP

ACP ThinManager® Industrial Thin Client

ACP is experienced in the field of Thin Clients. Since 1999, ACP has been embedding its Thin Client technology into industrial computer products from Advantech, working to bring superior Thin Client devices. When combined with ACP's Thin Client management tool, each ACP Enabled Advantech Thin Client has performance and features unmatched by products from any other company.

Intelligent Software

- Search Devices by Remote Agent
- Transfer files between PC and remote devices
- Group Monitoring up to 24 target devices simultaneously
- Time synchronization
- On line troubleshooting

DiagAnywhere
Remote Maintenance Software

"DiagAnywhere", an abbreviation of "Diagnose Anywhere", is remote maintenance software for remotely monitoring and controlling Advantech TPC, APAX, UNO and ADAM devices with Windows-based operating systems. Currently, DiagAnywhere includes the utility on the client side and the server on the target devices.

The supported platforms include Windows XP, Windows 7, WES 2009,WES 7, CE 5.0 and CE 6.0. This useful software can help users to achieve major remote maintenance tasks including remote monitoring and control, remote screen snapshot and recording, file upload and download. Windows-based authentication is also supported for security concerns.

PANELEXPRESS
Designed for Convenience

PanelExpress is a Windows based HMI runtime. It enables you to utilize the resources of a PC, such as computation power, multimedia, and bigger screen, to realize a high-end sophisticated HMI. Its configuration software, WebOP Designer, is also the development tool for WebOP-2000 series RTOS based HMI products. Thanks to the cross platform flexibility offered by WebOP Designer, switching hardware for the consideration of cost and performance becomes an easy job.

General Features

- Cost effective Windows based HMI runtime
- Over 50 kinds of screen objects can fulfill all types of HMI operating and viewing needs for machine automation
- Supports 16 communication links for different application
- No limitation on the number of internal I/O points used in an application
- Supports over 350 PLC communication protocols
- Supports data collection, alarm monitoring, recipe handling, and history of operation logging

Advanced Features

- Number of communication links can be set up to 128
- Monitors up to 64 discrete alarm blocks and 64 analog alarm blocks. Totally up to 65535 alarms can be defined
- Supports VNC (Virtual Network Computing)
- Supports Access, My SQL, and SQL databases
- Supports Visual Basic Script

UNO-1000 Series Introduction & Features

DIN-rail Automation Computers for Control Cabinets

- Fanless, and No Moving Parts for Harsh Environments
- DIN-rail, Front I/O Accessible Design for Control Cabinets
- Battery-backup SRAM Saves Process Data in the Event of Power Failure
- Triple Ethernet Ports, PCI-104, PC/104+, and Mini PCIe Expansion
- A Wide Operating Temperature Range up to 75°C and Wide Power Input Range
- Designed to be Used in High Altitudes up to 13,200 Feet (4,000 Meters)

Class I, Division 2 Certification

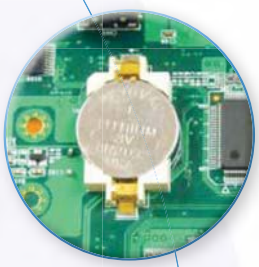
Tested and designed for CID2 certification, providing safe and reliable operation in hazardous locations, such as liquefied natural gas, onshore drilling production, pipelines and refining applications.

System Diagnosis

Providing voltage, temperature and power status, LED indicators give warnings at field sites, and digital output enables remote notification and uploads information to diagnostic software (e.g. DiagAnywhere) for monitoring and controlling.

Designed for Control Cabinets

Compact size, DIN-rail mount and front-accessible I/Os for simplified installation and management in cabinets.



Battery-backup SRAM

The battery-backup SRAM saves runtime process data in the event of a power failure. The SRAM can act as a data buffer that helps to reduce CF access time and extend product lifetime.

Flexible Expansion

With Mini PCIe, PCI-104 and PC/104+, it enables users to easily integrate wireless connections and Fieldbus I/O modules in a single package.

UNO-1110

TI Cortex AM3505 DIN-rail PC with 2 x LAN, 5 x COM, 4 x USB, 1 x Mini PCIe

-10~70°C

1. DI/DO, 1 x RS-485, 2 x SD
2. Serial Port (4 x RS-232/422/485)
3. 2 x LAN (10/100Mbps)
4. Line Out (1110T only)
5. VGA (1024 x 768)
6. Indicators (Power, Serial, SD, DI/O, Programmable)
7. 4 x USB
8. Power Input

UNO-1150G/1150GE
UNO-1150GH/1150GHE

Automation Computers with 5 x COM, 2 x GbE LAN

C1D2 PCI-104 -10~60°C

1. VGA
2. 3 x COM
3. 2 x LAN
4. 2 x USB
5. Audio In/Out
6. Indicator LED

UNO-1170A/1170AE

Intel Atom N270 Automation Computers with 3 x COM, 2 x LAN

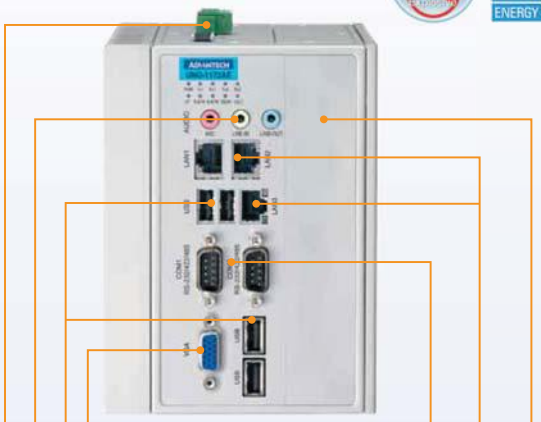
Backup SRAM PC/104+ Mini PCI -10~60°C

1. VGA
2. RS-232/422/485 x 1
3. RS-232 x 2
4. USB x 4 (internal USB x 1)
5. LAN x 2
6. Audio
7. KB/MS & Power Input
8. Mini PCI / PC/104+ expansion / 2.5" SATA HDD

UNO-1172A/1172AE

Intel Atom D510 Automation Computers with System Diagnosis

Backup SRAM PC/104+ Mini PCI Mini PCIe -10~65°C



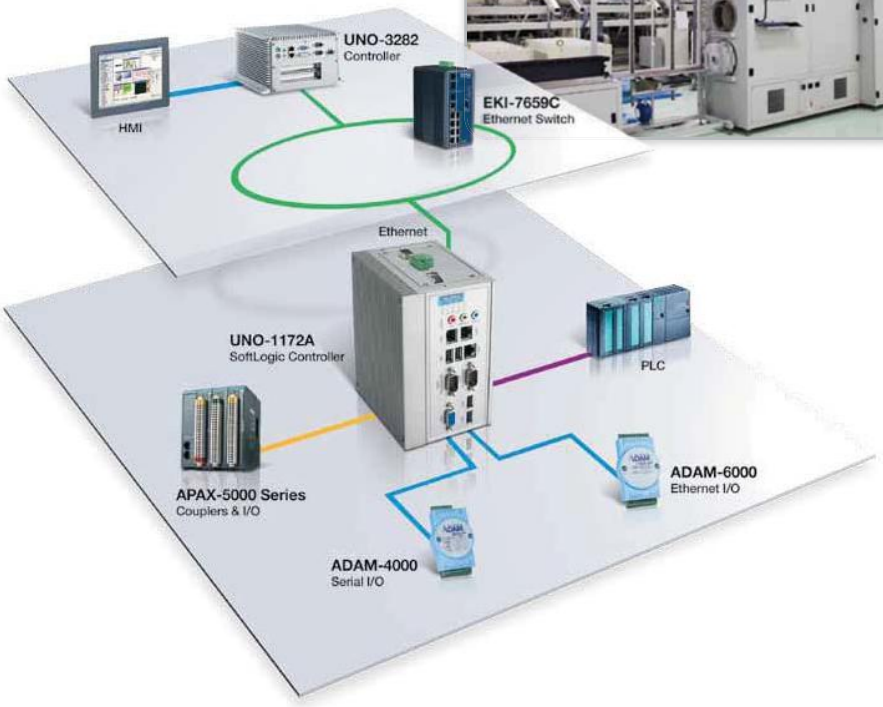
1. VGA
2. RS-232/422/485 x 2
3. USB x 4
4. GigaLAN x 3
5. HD Audio
6. KB/MS & Power Input
7. Mini PCI / Mini PCIe / PC/104+ expansion / 2.5" SATA HDD

SoftLogic Controller for Factory Automation

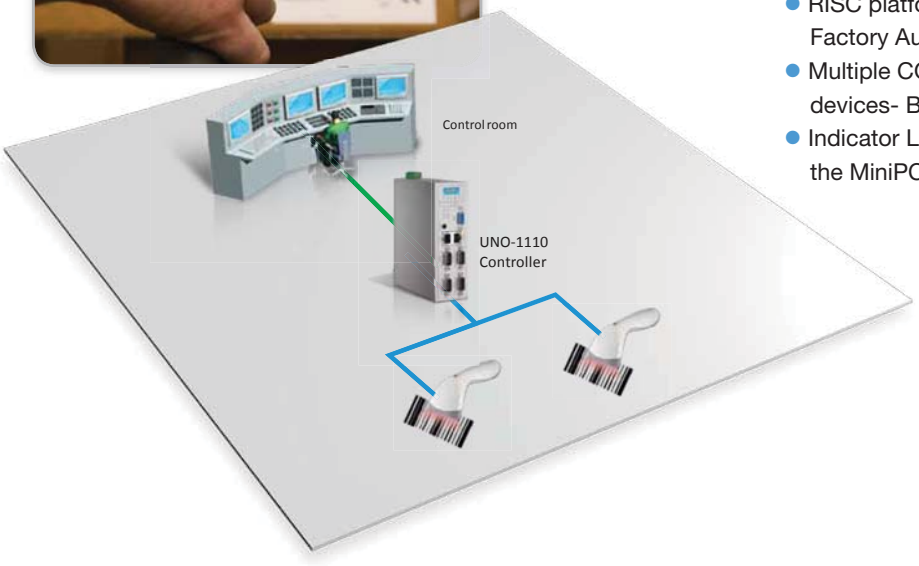
UNO-1172A/1172AE

SoftLogic Controllers Connecting a Variety of I/O Devices

- Provides local and remote diagnostic functions for better reliability
- Supports redundancy for fault tolerance via up to three Gigabit LAN ports
- Simplifies maintenance with compact size and front accessible design



Factory Sorting System



UNO-1110

Compact Controller with Multiple COMs for Factory Sorting

- RISC platform controller with faster CPU on Factory Automation
- Multiple COMs inquire for the external devices- Barcode, Scanner, Sensors
- Indicator LED for devices identification and the MiniPCIe slot for wireless module

Fiber Optics
Ethernet
Serial (RS-232/422/485)
I/O, Device, VGA
APAX Local Bus

Certification Definition - Class I, Division 1 & 2

Hazardous locations are areas where potential hazards (e.g. fires, explosions, etc.) may exist under normal or abnormal conditions because of the presence of flammable gases or vapors, flammable liquids, combustible dusts or ignitable fibers. According to the NEC (National Electrical Code), there are three types of hazardous locations categorized by Class I (gases, vapors, and liquids), Class II (dusts), and Class III (fibers and flyings). Division 1 means normally explosive and hazardous and Division 2 means not normally present in an explosive concentration but may accidentally exist.

Class I, Division 2 Certified for Oil & Gas Applications

The UNO-1100H series are certified to be used in Class I Division 2 Groups A, B, C and D hazardous locations.
Ambient Temperature Range: 0 ~ 60°C
Temperature Code:

Model Name	Temperature Code
UNO-1150GH/GHE	T3A
UNO-1172AH	T5

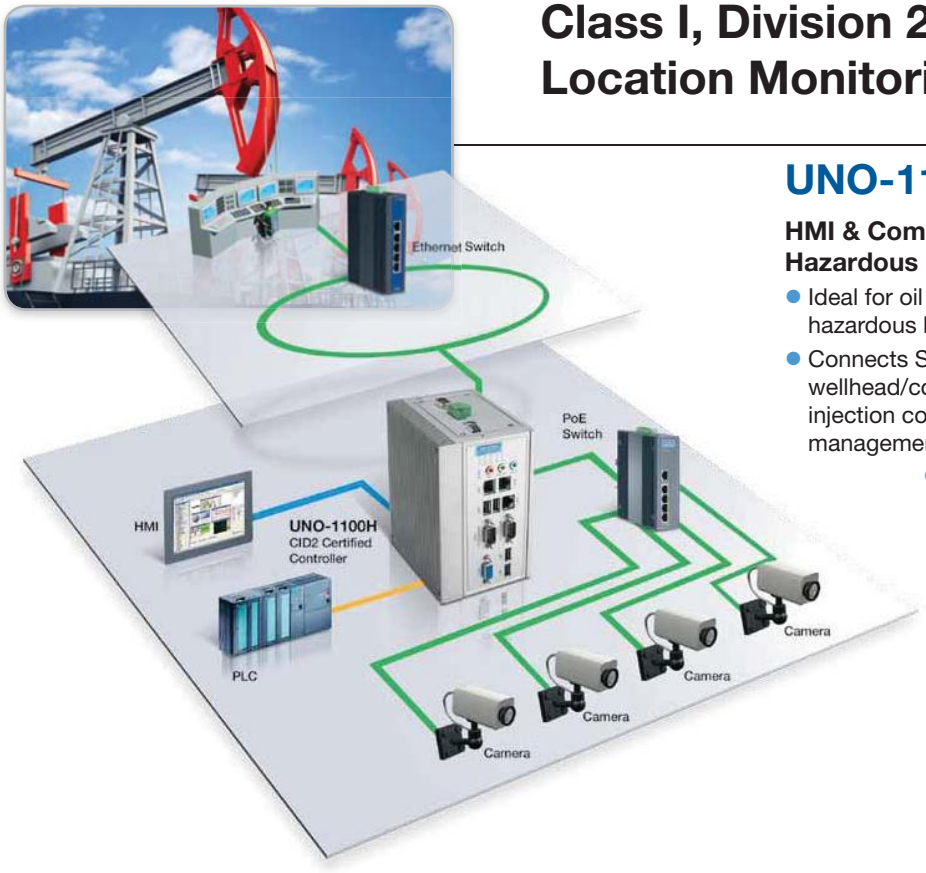
The UNO-1100H series have been classified using requirements contained in:

US: ANSI/ISA 12.12.01-2007

- Class I and II, Division 2 Hazardous (Classified) Locations
- Class III, Division 1 and 2 Hazardous (Classified) Locations

Canada: CSA C22.2 No. 213-M1987

- Class I, Division 2 Hazardous Locations



Class I, Division 2 Hazardous Location Monitoring System

UNO-1100H series

HMI & Communication Gateways in Hazardous Locations

- Ideal for oil & gas fields, mining and other hazardous locations
- Connects SCADA RTU network, including wellhead/compressor/pumping unit/gas lift/ injection control, together to realize centralized management in Distributed Control System (DCS)
- Achieves video security and local trouble-shooting control console by combining CID2-certified grade IP camera, PoE switch and LCD screen

Fiber Optics
Ethernet
Serial (RS-232/422/485)
I/O, Device, VGA
APAX Local Bus

UNO-1000 Series Selection Guide




Model Name	UNO-1110	UNO-1150GH	UNO-1150GHE	UNO-1150G	UNO-1150GE
CPU	TI AM3505 Cortex A8, 600MHz	AMD LX800, 500 MHz	AMD LX800, 500 MHz	AMD LX800, 500 MHz	AMD LX800, 500 MHz
Onboard RAM	256MB DDR2 SDRAM	256MB DDR SDRAM	256MB DDR SDRAM	256MB DDR SDRAM	256MB DDR SDRAM
Battery-Backup SRAM	-	-	-	-	-
Display	VGA	VGA	VGA	VGA	VGA
Audio	Line out	Yes	Yes	Yes	Yes
Serial Ports	1 x RS-485 4 x RS-232/422/485	2 × RS-232 (one pin header reserved) 2 x RS-232/422/485	2 × RS-232 (one pin header reserved) 2 x RS-232/422/485	2 × RS-232 (one pin header reserved) 2 x RS-232/422/485	2 × RS-232 (one pin header reserved) 2 x RS-232/422/485
Ethernet Ports	2 x 10/100Base-T	2 x 10/100Base-T	2 x 10/100Base-T	2 x 10/100Base-T	2 x 10/100Base-T
USB Ports	-	2	2	2	2
Onboard I/O	4-ch DI, 2-ch DO	-	-	-	-
2.5 HDD	-	N/A	1 x SATA	N/A	1 x SATA
Expansion	1 x Mini PCIe	2 x PCI-104	1 x Mini PCI	N/A	1 x PCI-104, 1 x Mini PCI
CompactFlash Slots	-	1 internal	1 internal	1 internal	1 internal
Power Input Range	10 ~ 30 VDC	10 ~ 36 VDC	10 ~ 36 VDC	10 ~ 36 VDC	10 ~ 36 VDC
Operating Temperature	-10 ~ 70°C	-10 ~ 60°C	-10 ~ 60°C	-10 ~ 60°C	-10 ~ 60°C
Power Consumption	8.5 W	15 W	15 W	15 W	15 W
Dimensions (W x D x H)	48 x 126 x 152 mm	96.5 x 139 x 152 mm	96.5 x 139 x 152 mm	71 x 139 x 152 mm	96.5 x 139 x 152 mm
Class I, Division 2 Certification	No	Yes	Yes	No	No

Accessories	
UNO-FPM11	DiagAnywhere
VESA mounting kit for UNO-1100 series	DiagAnywhere Remote Management and Control Utility
	

Ordering Information	
UNO-1150GH	LX800 MHz, 256 MB DIN-rail PC, C1D2
UNO-1150G-G30E	AMD LX800 500 MHz, 256MB RAM
UNO-1150GE-G30E	AMD LX800 500 MHz, 256MB RAM w/ PCI-104

UNO-1000 Series Selection Guide




Model Name	UNO-1170A	UNO-1170AE	UNO-1172A	UNO-1172AE
CPU	Intel Atom N270, 1.6 GHz	Intel Atom N270, 1.6 GHz	Intel Atom Dual Core D510, 1.66 GHz	Intel Atom Dual Core D510, 1.66 GHz
Onboard RAM	1GB DDR2 SDRAM	1GB DDR2 SDRAM	2GB DDR2 SDRAM	2GB DDR2 SDRAM
Battery-Backup SRAM	512 KB	512 KB	1 MB	1 MB
Display	VGA	VGA	VGA	VGA
Audio	Yes	Yes	5.1 channel HD Audio	5.1 channel HD Audio
Serial Ports	2 x RS-232 1 x RS-232/422/485 1 x RS-232 (pin header)	2 x RS-232 1 x RS-232/422/485 1 x RS-232 (pin header)	2 x RS-232/422/485 2 x RS-232 (pin header)	2 x RS-232/422/485 2 x RS-232 (pin header)
Ethernet Ports	2 x 10/100 Base-T	2 x 10/100 Base-T	3 x 10/100/1000 Base-T	3 x 10/100/1000 Base-T
USB Ports	3 external, 1 internal	3 external, 1 internal	4	4
Onboard I/O	-	-	8-ch DO	8-ch DO
2.5 HDD	1 x SATA	1 x SATA	1 x SATA	1 x SATA
Expansion	N/A	2 x PC/104+, 1 x Mini PCI	1 x Mini PCIe	2 x PC/104+, 1 x Mini PCI, 1 x Mini PCIe
CompactFlash Slots	1 internal	1 internal	1 internal	1 internal
Power Input Range	10 ~ 36 VDC	10 ~ 36 VDC	10 ~ 36 VDC	10 ~ 36 VDC
Operating Temperature	-10 ~ 60°C	-10 ~ 60°C	-10 ~ 65°C	-10 ~ 65°C
Power Consumption	24 W	24 W	24 W	24 W
Dimensions (W x D x H)	85.5 x 139 x 152 mm	111 x 139 x 152 mm	85.5 x 139 x 152 mm	111 x 139 x 152 mm
Class I, Division 2 Certification	No	No	No	Yes

Ordering Information	
UNO-1170A-A12E	Intel Atom N270 1.6 GHz, 1G RAM
UNO-1170AE-A12E	Intel Atom N270 1.6 GHz, 1G RAM w/ PC/104+
UNO-1172A-A33E	Intel Atom Dual Core D510 1.66 GHz, 2G RAM
UNO-1172AE-A33E	Intel Atom Dual Core D510 1.66 GHz, 2G RAM w/ PC/104+

Accessories Ordering Information	
UNO-FPM11-AE	VESA mounting kit for UNO-1100 series
PCLS-DIAGAW10	DiagAnywhere Remote Management and Control Utility

UNO-2000 Series Introduction & Features

Compact Automation Computers

- Compact and Small with DIN-rail, Wallmount, and VESA-mount Support
- Industrial Onboard Isolated RS-232/422/485 and Isolated I/Os
- Wide Power Input Range up to 48 VDC with Reverse Protection
- Low Power Consumption

Compact Design

The compact UNO-2000 series are designed to save space in working areas.

Diverse Onboard I/O

From isolated digital I/O lines to RS-232/422/485, the UNO-2000 series are ideal solutions for gateway, protocol converter and data server applications.

Multiple Mounting Solutions

Supports DIN-rail, wallmount and standard VESA mounting, which provides easy installation.

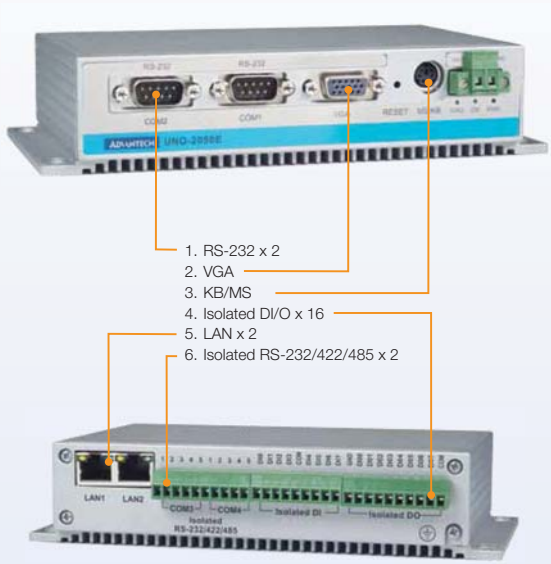
Low Power Consumption

Low power consumption with sufficient computing power.

UNO-2050G

AMD GX3 Automation Computer with Isolated Digital I/O

Dual LAN | Isolated Serial | -10~55°C



UNO-2053GL

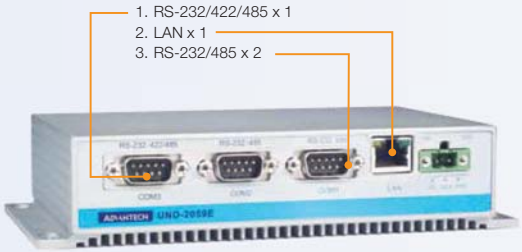
AMD GX3 Automation Computer with Dual LAN

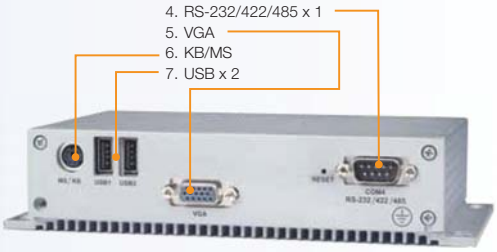
Dual Serial | Audio | -10~55°C

UNO-2059GL

AMD GX3 Automation Computer with RS-232/422/485

Dual USB | LAN | -10~55°C





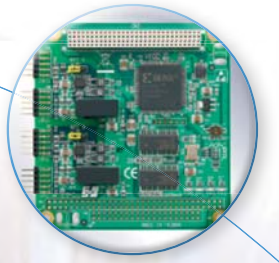
UNO-2100 Series Introduction & Features

High-performance Automation Computers with Versatile Expansion

- Provides Diverse Communication Interfaces
- Compact and Small Footprint with DIN-rail, Wallmount, and VESA-mount Support
- Industrial Onboard RS-232/422/485, Supports Any Baud Rate up to 921.6kbps
- Industrial Power Design with Grounding Isolation between Chassis and System

High Density Cableless I/Os

I/Os like COMs, USBs, LANs and other interfaces with shock resistance and optional isolation.



Expansion Capability

Expansion for communications, I/Os, and Fieldbus from different interfaces such as PC/104+, Mini PCIe, etc.

Trusted Industrial Design

Full range of serial ports, e.g. RS-485 with any baud rate, chassis grounding and wide power input.

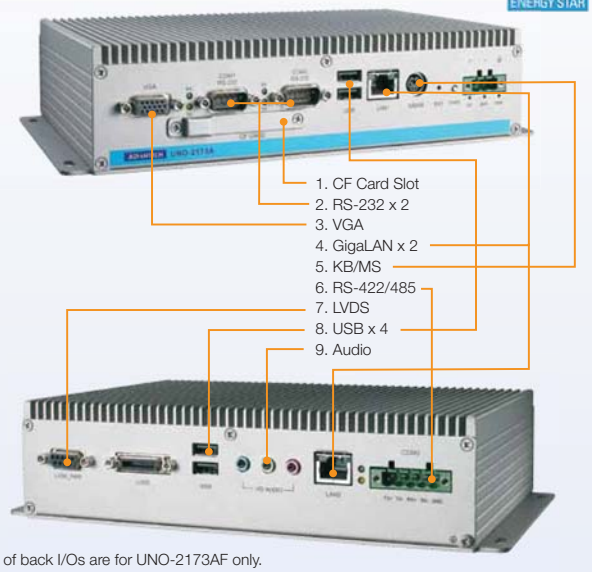
Wide CPU Selection and Operating Temperature Range

Selections from Intel Atom to Core 2 Duo computing power for various applications and designed for harsh environments.

UNO-2173A/AF

Intel Atom N270 Automation Computers with 3 x COM, 2 x GbE

Mini PCIe | -20~70°C



All of back I/Os are for UNO-2173AF only.

UNO-2174A/2178A

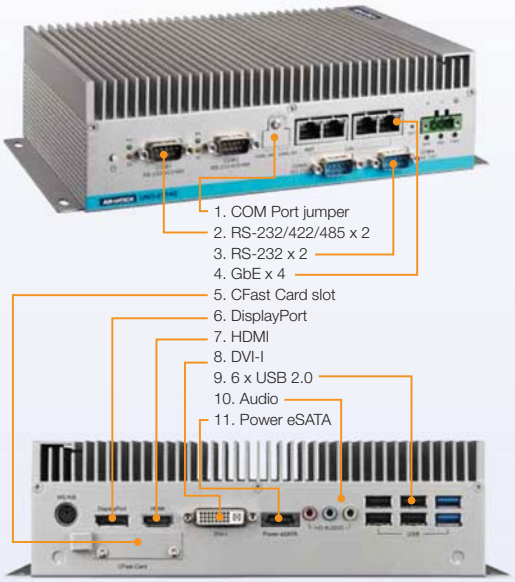
Intel Atom N450/D510 Automation Computers with 8 x COM, 2 x GbE

PCI-104 | Mini PCIe | PC/104+ | -10~70°C

UNO-2174G/GL

Intel Celeron 847/807UE Automation Computers with HDMI/DVI/DP, 2 x Mini PCIe

Mini PCIe | PCI-104 | -10~60°C



UNO-2184G

Intel Core i7 3555LE Automation Computer with 4 x COM, 4 x GbE

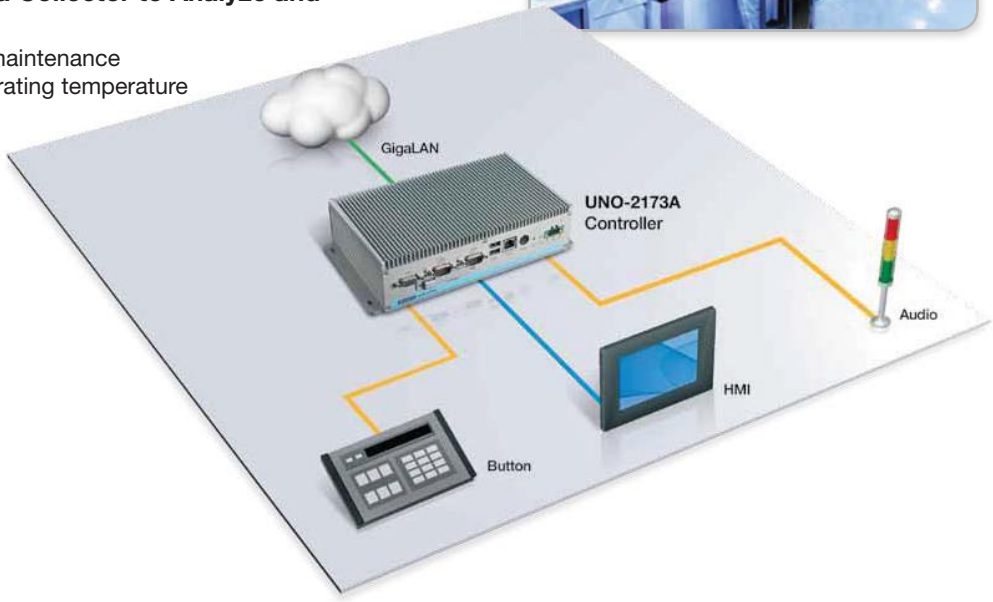
Mini PCIe | PCI-104 | -10~60°C

Manufacturing Execution System for Production Automation

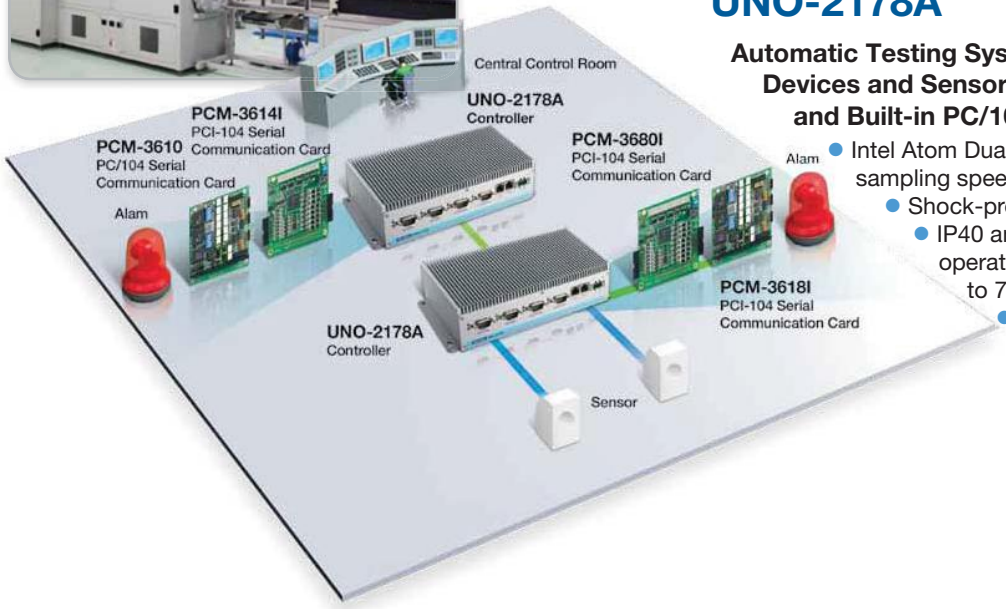
UNO-2173A

A Machine & Production Data Collector to Analyze and Report Data

- Front accessible I/Os for easy maintenance
- IP40 protection and a wide operating temperature range from -20 to 70°C
- Low power consumption and Energy Star certified



On-line Testing System in Factory Automation



UNO-2178A

Automatic Testing System Connecting to Diverse Devices and Sensors via Multiple COM Ports and Built-in PC/104 & PCI-104 DAQ Modules

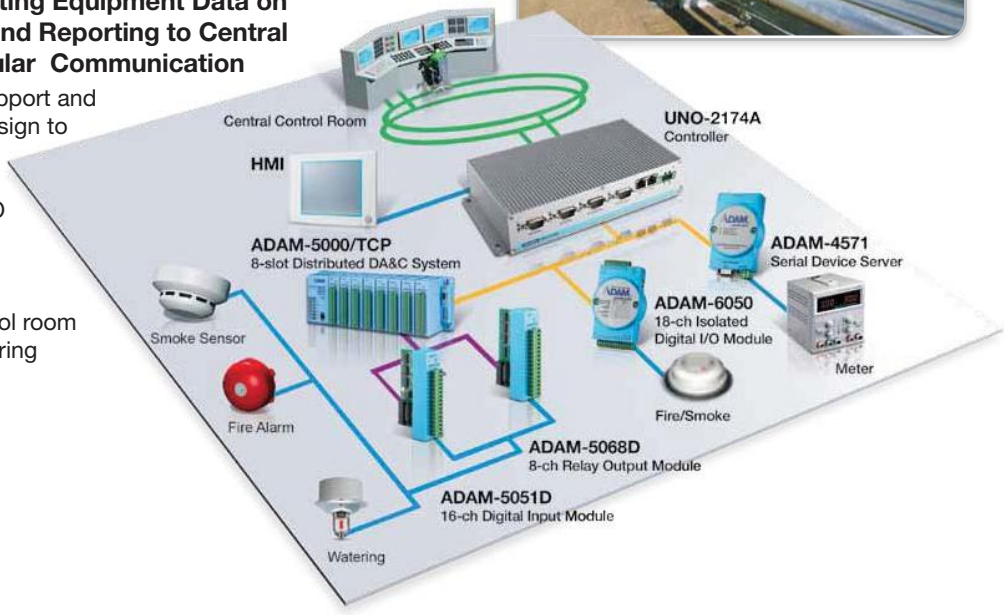
- Intel Atom Dual Core CPU for processing high sampling speed data
- Shock-proof and interference resistant
- IP40 anti-dust approved with a wide operating temperature range from -10 to 70°C
- PCI-104 expansion for DAQ I/O card (Additional expansion kit required)
- Connects up to 8 COM ports for serial devices

SCADA Server for Distributed Monitoring of Unmanned Stations

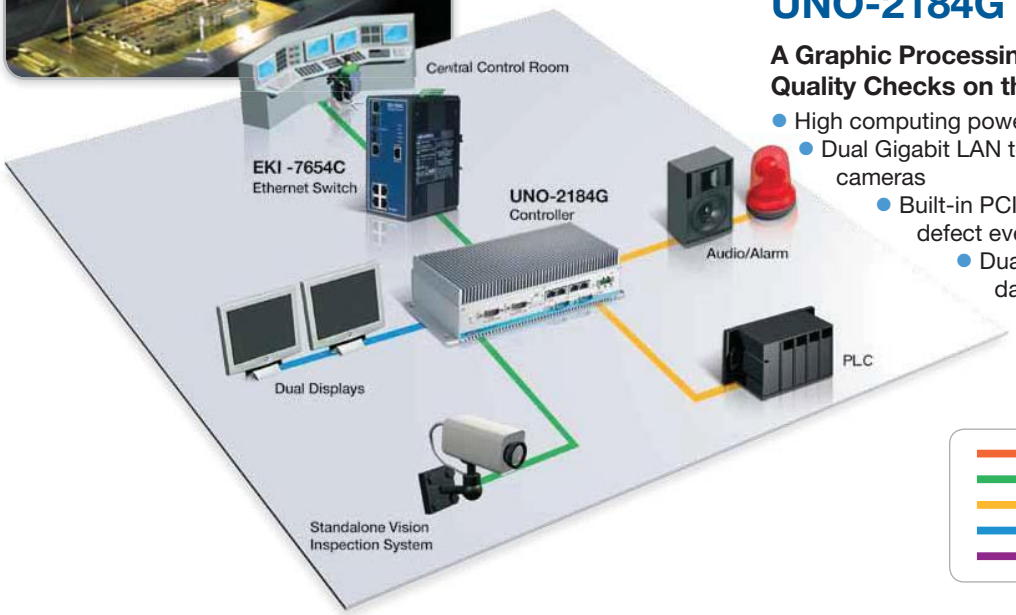
UNO-2174A

Remote SCADA Server Collecting Equipment Data on Remote Unmanned Stations and Reporting to Central Control Room over LAN/ Cellular Communication

- Up to 70°C wide temperature support and reliable fanless and cableless design to significantly reduce maintenance effort
- Collects equipment data from I/O modules and PLCs from serial ports and Fieldbus
- Wi-Fi/ Cellular network support for connection with central control room
- DiagAnywhere for cluster monitoring management



Defect Inspection System on Production Line in Factory Automation



UNO-2184G

A Graphic Processing Controller to Implement Quality Checks on the Production Line

- High computing power for graphic processing
- Dual Gigabit LAN to connect to industrial IP cameras
- Built-in PCI-104 I/O modules for quality defect event trigger and handling
- Dual displays to monitor different data for its collection and interpretation

Fiber Optics
Ethernet
Serial (RS-232/422/485)
I/O, Device, VGA
APAX Local Bus

UNO-2000/2100 Series Selection Guide




Model Name	UNO-2050G/2053GL	UNO-2059GL	UNO-2170	UNO-2173A/AF
CPU	AMD LX800, 500 MHz	AMD LX800, 500 MHz	Intel Celeron M, 1.0 GHz	Intel Atom N270, 1.6 GHz
Onboard RAM	256M DDR SRAM	256M DDR SRAM	512M DDR SRAM	1G/2G DDR2 SRAM
Battery-Backup SRAM	-	-	512 KB	1 MB (reserved)
Display	VGA	VGA	VGA	VGA
Audio	Yes (UNO-2053GL)	Yes (UNO-2053GL)	-	5.1 Channel HD (UNO-2173AF)
Serial Ports	UNO-2050G: 2 x iso. RS-232/422/485 UNO-2053GL: 2 x RS-232	2 x RS-232/485, 2 x RS-232/422/485	2 x RS-232 2 x RS-232/422/485	UNO-2173A: 2 x RS-232 UNO-2173AF: 2 x RS-232, 1 x RS-422/485
Ethernet Ports	UNO-2059GL: 1 x 10/100Base-T UNO-2050G/2053GL: 2 x 10/100Base-T	1 x 10/100Base-T	2 x 10/100Base-T	UNO-2173A: 1 x 10/100/1000Base-T UNO-2173AF: 2 x 10/100/1000Base-T
USB Ports	UNO-2053GL/2059GL: 2 external	2 external	2 external	UNO-2173A: 2 external UNO-2173AF: 4 external
PC Card Slots	-	-	1	-
Onboard I/O	UNO-2050G: 8-ch iso. DI, 8-ch iso. DO	-	-	-
2.5 HDD	-	-	1 x SATA	1 x SATA
Expansion	-	-	PC/104	1 x Mini PCIe
CompactFlash Slots	1 internal	1 internal	1 internal	1 external
Power Input Range	UNO-2050G/2053GL: 9 ~ 36 VDC	10 ~ 48 VDC	9 ~ 36 VDC	9 ~ 36 VDC
Operating Temperature	-10 ~ 55°C	-10 ~ 55°C	-20 ~ 50°C	-20 ~ 70°C
Power Consumption	15 W	15 W	24 W	15 W
Dimensions (W x D x H)	188.8 x 106.5 x 35.5 mm	188.8 x 106.5 x 35.5 mm	255 x 152 x 50 mm	255 x 152 x 59 mm

Accessories						
UNO-DIN21	UNO-FPM21	UNO-PCM21	UNO-PCM22	UNO-PCM23	UNO-PCM24	DiagAnywhere
DIN-rail mounting kit for UNO-2100 series	VESA mounting kit for UNO-2000 series	2 x PC/104 expansion kit for UNO-2170	2 x PC/104 expansion kit for UNO-2100 series	1 x PCI-104, 1 x PC/104+ expansion kit for UNO-2174A/2178A	2 x PCI-104 expansion kit for UNO-2184G/2174G/2174GL	DiagAnywhere Remote Management and Control Utility
						

Accessories Ordering Information	
UNO-DIN21-BE	DIN-rail mounting kit for UNO-2100 series
UNO-FPM21-AE	VESA mounting kit for UNO-2000 series
UNO-PCM21-AE	2 x PC/104 expansion kit for UNO-2170
UNO-PCM22-AE	2 x PC/104 expansion kit for UNO-2100 series
UNO-PCM23-AE	1 x PCI-104, 1 x PC/104+ expansion kit for UNO-2174A/2178A
UNO-PCM24-AE	2 x PCI-104 expansion kit for UNO-2184G/2174G/GL
UNO-2184HD-AE	RAID accessory kit for UNO-2184G/2174G
PCLS-DIAGAW10	DiagAnywhere Remote Management and Control Utility



Model Name	UNO-2174A/2178A	UNO-2182	UNO-2174G/GL	UNO-2184G
CPU	UNO-2174A: Intel Atom N450, 1.66 GHz UNO-2178A: Intel Atom Dual Core D510, 1.6 GHz	Intel Core 2 Duo L7400, 1.5 GHz	Intel Celeron 847/807 UE, 1.1/1.0 GHz	Intel Core i7 3555LE 2.5 GHz
Onboard RAM	2G DDR2 SRAM	2G DDR2 SRAM	4G DDR3 SDRAM	4G/8G DDR3 SDRAM
Battery-Backup SRAM	1 MB (reserved)	512 KB	-	-
Display	VGA	DVI-I	DVI/HDMI/DP	DVI/HDMI/DP
Audio	5.1 Channel HD	Yes	5.1 Channel HD	5.1 Channel HD
Serial Ports	UNO-2174A: 2 x RS-232/485, 2 x RS-232/422/485 UNO-2178A: 6 x RS-232/485, 2 x RS-232/422/485	2 x RS-232 2 x RS-232/422/485	2 x RS-232 2 x RS-232/422/485	2 x RS-232 2 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	4 x 10/100/1000Base-T
USB Ports	6 external	2 external	6 external	6 external (2 xUSB 3.0)
PC Card Slots	-	1	-	-
Onboard I/O	-	-	-	-
2.5 HDD	1 x SATA	1 x SATA/IDE	2 x SATA (optional)	2 x SATA (optional)
Expansion	2 x Mini PCIe with SIM card slot support, 1 x PCI-104, 1 x PC/104+ (expansion board required)	PCI-104	2 x Mini PCIe with SIM card slot 2 x PCI-104 (optional)	2 x Mini PCIe with SIM card slot 2 x PCI-104 (optional)
CompactFlash Slots	1 external	1 internal	1 external	1 external
Power Input Range	9 ~ 36 VDC	9 ~ 36 VDC	9 ~ 36 VDC	9 ~ 36 VDC
Operating Temperature	-10 ~ 70°C	-20 ~ 60°C	-10 ~ 60°C	-10 ~ 60°C
Power Consumption	16 W	35 W	30 W/20 W	40 W
Dimensions (W x D x H)	255 x 152 x 59 mm	255 x 152 x 69 mm	255 x 152 x 69 mm	255 x 152 x 69 mm

Recommended Serial Communication Cards

PCM-3610	PCM-3614I	PCM-3618I	PCM-3680I
2 port RS-232/422/485 PC/104 Module with Isolation Protection	4-port RS-232/422/485 PCI-104 Module	8-port RS-232/422/485 PCI-104 Module	2 port CAN-bus PCI-104 Module with Isolation Protection
			

Ordering Information

UNO-2050G-G30E	AMD LX800 500 MHz, 256MB RAM	UNO-2174A-A23E	Intel Atom N450 1.6 GHz, 2G RAM
UNO-2053GL-G30E	AMD LX800 500 MHz, 256MB RAM	UNO-2174A-A33E	Intel Atom D510 1.66GHz, 2 GB RAM
UNO-2059GL-G30E	AMD LX800 500 MHz, 256MB RAM	UNO-2174G-C54E	Intel Celeron 847 1.1 GHz, 4 GB RAM
UNO-2170-C11BE	Intel Celeron M 1.0 GHz, 256MB RAM	UNO-2178A-A33E	Intel Atom Dual Core D510 1.66 GHz, 2G RAM
UNO-2173A-A12E	Intel Atom N270 1.6 GHz, 1G RAM w/ front I/O	UNO-2182-D13BE	Intel Core 2 Duo 1.5 GHz, 2G RAM
UNO-2173A-A13E	Intel Atom N270 1.6 GHz, 2G RAM w/ front I/O	UNO-2184G-D44E	Intel Core i7-2655LE 2.2 GHz, 4 GB RAM
UNO-2173AF-A12E	Intel Atom N270 1.6 GHz, 1G RAM	UNO-2184G-D45E	Intel Core i7-2655LE 2.2 GHz, 8 GB RAM
UNO-2173AF-A13E	Intel Atom N270 1.6 GHz, 2G RAM	UNO-2184G-D64E	Intel Core i7-3555LE 2.5 GHz, 4 GB RAM

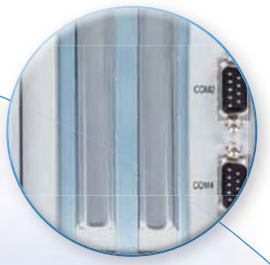
UNO-3000 Series Introduction and Features

Wallmount Automation Computers with PCI/PCIe Expansion

- Wide Computing Power from Intel® Atom™ N270 1.6GHz to Core i7-2655LE 2.2GHz CPU
- Front I/O Design for Easy Cabling and Maintenance
- Dual SATA HDDs with RAID 0/1 and Network Teaming to Provide Transmission Redundancy
- Dual DVI-I Support for up to Three Displays
- PCI/PCIe Expansion with Card Retainer

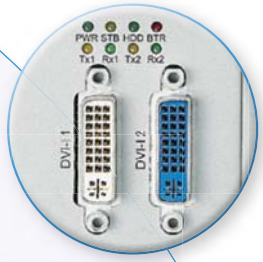
RAID 0/1 Support

With an additional RAID controller or optional onboard RAID functionality, data can be completely backed using the RAID 1 mirror function.



Front Accessible Design

To help wiring and setup, all I/O lines are located on the front panel of the UNO-3000 series. Easy installation of additional PCI boards and storage devices with a removable top cover.



Triple Displays

Triple screens benefit large machinery operations with operators on opposite sides.

LAN Redundancy (Teaming)

The UNO-3000 series support Ethernet teaming. When one Ethernet is not working, another port will immediately take over the transmission job. It also includes a load balancing feature that allows the workload to be evenly distributed across two networks.

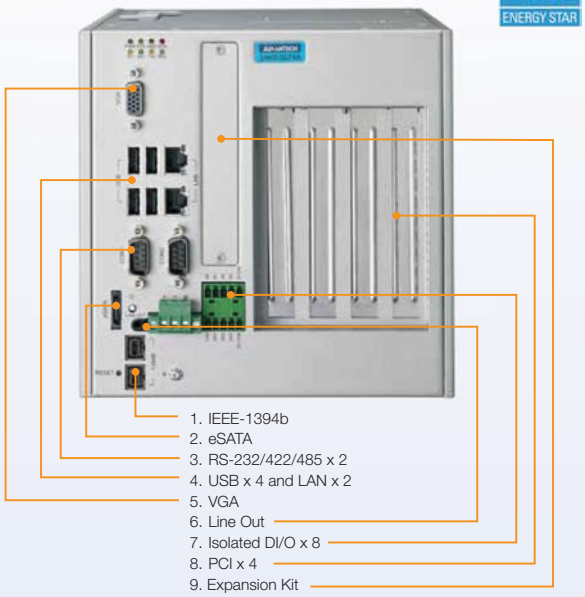
Onboard IEEE-1394b Ports for Machine Vision Applications

The UNO-3000 series are equipped with IEEE-1394b and Gigabit LAN onboard, which allow machine vision application users to directly attach their machine vision cameras without purchasing additional interfaces.

UNO-3072A/3074A

Intel Atom D510 Automation Computers with 2/4 x PCI

Dual GbE LAN | IEEE 1394b | -10~60°C

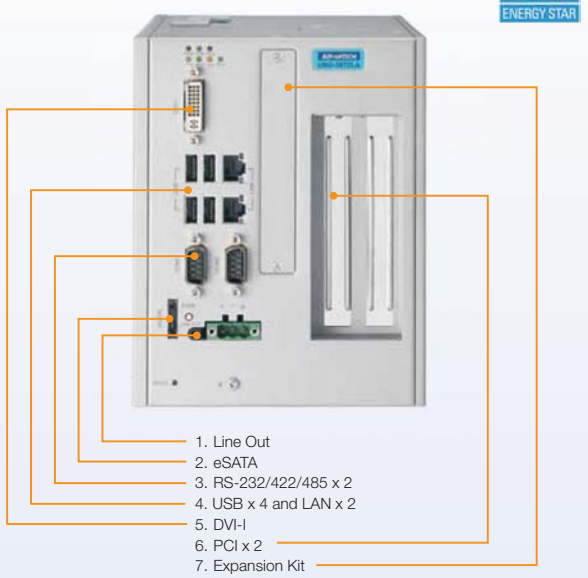


1. IEEE-1394b
2. eSATA
3. RS-232/422/485 x 2
4. USB x 4 and LAN x 2
5. VGA
6. Line Out
7. Isolated DI/O x 8
8. PCI x 4
9. Expansion Kit

UNO-3072LA

Intel Atom N270 Automation Computer with 2 x PCI

Dual GbE LAN | Dual Displays | -10~60°C

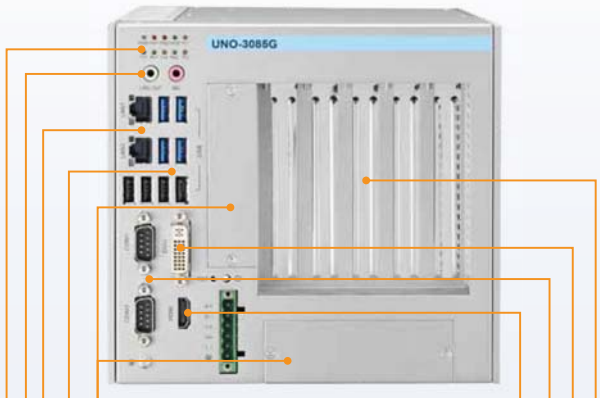


1. Line Out
2. eSATA
3. RS-232/422/485 x 2
4. USB x 4 and LAN x 2
5. DVI-I
6. PCI x 2
7. Expansion Kit

UNO-3073G/3073GL
UNO-3083G/3085G

Intel Celeron 847/807UE/Core i7-2655LE with up to 5 PCIe/PCI expansion slot

Triple Displays | IEEE 1394b | Isolated DI/O | -10~55°C

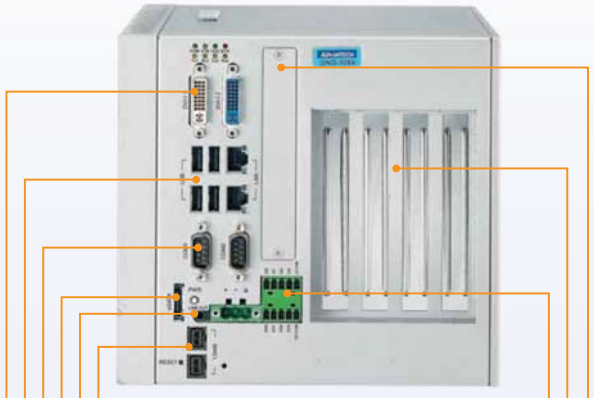


1. 2 x front accessible Dual HDD/SDD with onboard RAID 0/1
2. 1 x HDMI
3. 2 x COM
4. 1 x DVI-I
5. Up to 5 PCI/PCIe expansion slot
6. 8 x USB
7. 2 x GbE LAN
8. Audio LINE-out/MIC-in
9. Indicator LED

UNO-3084

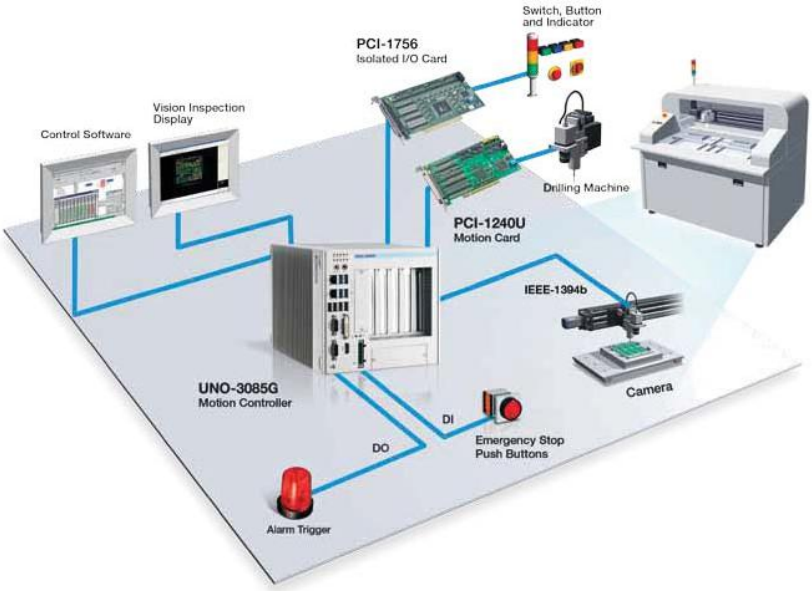
Intel Core 2 Duo Automation Computer with 3 x PCI and 1 x PCIe

Triple Displays | IEEE 1394b | Isolated DI/O | -10~55°C



1. IEEE-1394b
2. Line Out
3. eSATA
4. RS-232/422/485 x 2
5. USB x 4 and LAN x 2
6. DVI-I x 2
7. Isolated DI/O x 8
8. PCI x 3 and PCIe x 1
9. Expansion Kit

Motion Vision Controller in PCB Inspection Machines



UNO-3085G

Machine Vision in PCB Optical Inspection

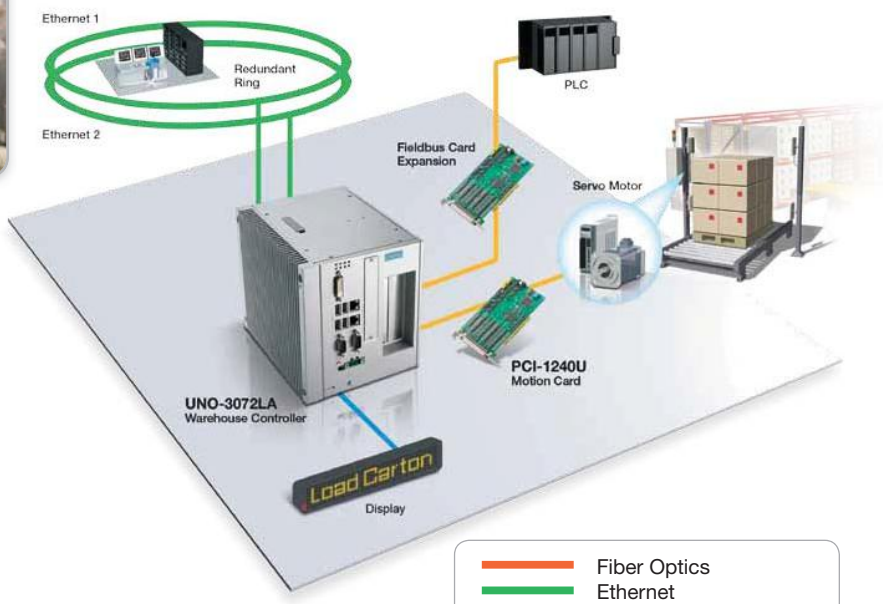
- Onboard IEEE-1394b/ GbE to attach cameras for machine vision inspection
- Triple displays for inspection software, running status and inspection images
- Intel Power Core i7 computing engine for intense visualization tasks
- PCI/PCIe slots for I/Os and motion cards

Dispatch System in Warehouse Automation

UNO-3072LA

Logistic Handling System

- 2 PCI slots for motion card to Servo motor and Fieldbus card expansion
- RS-485 COM port for LED display for inventory status
- Teaming function to ensure central control network



UNO-3000 Series Selection Guide





Model Name	UNO-3072LA	UNO-3072A/3074A	UNO-3082	UNO-3084	UNO-3073G/GL	UNO-3083G/3085G
CPU	Intel Atom N270, 1.6 GHz	Intel Atom Dual Core D510, 1.66 GHz	Intel Core 2 Duo L7500, 1.6 GHz	Intel Core 2 Duo L7500, 1.6 GHz	Intel Celeron 847 1.1 GHz/Intel Celeron 807UE 1.0 GHz	Intel Core i7-2655LE 2.2 GHz
Onboard RAM	1G/2G DDR2 SRAM	2G DDR2 SRAM	2G/4G DDR2 SRAM	2G/4G DDR2 SRAM	4G/ 8G DDR3 SRAM	4G/ 8G DDR3 SRAM
Battery-Backup SRAM	-	512 KB	512 KB	512 KB	-	-
Display	DVI-I	VGA	2 x DVI-I up to 3 displays	2 x DVI-I up to 3 displays	DVI-I/HDMI/DP	DVI-I/HDMI/DP
Audio	5.1 channel HD Line out	5.1 channel HD Line out	5.1 channel HD Line out	5.1 channel HD Line out	5.1 channel HD Mic in, Line out	5.1 channel HD Mic in, Line out
Serial Ports	2 x RS-232 (pin header) 2 x RS-232/422/485	2 x RS-232 (pin header) 2 x RS-232/422/485	2 x RS-232 (pin header) 2 x RS-232/422/485	2 x RS-232 (pin header) 2 x RS-232/422/485	2 x RS-232 (pin header) 2 x RS-232/422/485	2 x RS-232 (pin header) 2 x RS-232/422/485
Ethernet Ports	2 x 10/100/1000Base-T	2 x 10/100/1000Base-T	2 x 10/100/1000Base-T	2 x 10/100/1000Base-T	2 x 10/100/1000Base-T	2 x 10/100/1000Base-T
USB Ports	4 external, 1 internal, 2 x pin headers	4 external, 1 internal 2 x pin headers	4 external, 1 internal 2 x pin headers	4 external, 1 internal 2 x pin headers	8 external, 1 internal	8 external, 1 internal
Onboard I/O	-	4-ch iso. DI/DO 2 x type B IEEE 1394	4-ch iso. DI/DO 2 x type B IEEE 1394	4-ch iso. DI/DO 2 x type B IEEE 1394	-	-
2.5 HDD	1 x SATA, 1 x eSATA	2 x SATA (RAID 0/1) 1 x eSATA	2 x SATA (RAID 0/1) 1 x eSATA	2 x SATA (RAID 0/1) 1 x eSATA	2 x SATA (RAID 0/1)	2 x SATA (RAID 0/1)
Expansion	2 x PCI	2 x PCI	2 x PCI	3 x PCI 1 x PCIe	UNO-3073G:1 x PCIex16 + 2 x PCI expansion slots UNO-3073GL:1 x PCIex1 + 2 x PCI expansion slots	UNO-3083G:1 x PCIex16 + 2 x PCI expansion slots UNO-3085G :2 x PCIex8 + 3 x PCI expansion slots
CompactFlash Slots	1 internal, 1 external	1 internal, 1 external	1 internal, 1 external	1 internal, 1 external	1 internal, 1 external	1 internal, 1 external
Power Input Range	9 ~ 36 VDC	9 ~ 36 VDC	9 ~ 36 VDC	9 ~ 36 VDC	9 ~ 36 VDC	9 ~ 36 VDC
Operating Temperature	-10 ~ 60°C	-10 ~ 60°C	-10 ~ 55°C	-10 ~ 55°C	-10 ~ 60°C	-10 ~ 60°C
Power Consumption	20 W	25 W	40 W	40 W	UNO-3073GL: 20W UNO-3073G: 30W	UNO-3083G: 20W UNO-3085G: 30W
Dimensions (W x D x H)	140 x 238 x 177 mm	140 x 238 x 177 mm	157 x 238 x 177 mm	195 x 238 x 177 mm	3073G/GL: 148 x 238 x 177 mm	UNO-3083G 148 x 238 x 177 mm UNO-3085G 193 x 238 x 177 mm

Accessories

UNO-PM70	UNO-SM70	UNO-PM80	UNO-SM80	UNO-WM80	DiagAnywhere
Panel mounting kit for UNO-3000 series	Stand mounting kit for UNO-3000 series	Panel mounting kit for UNO-3082/3084	Stand mounting kit for UNO-3082/3084	Wallmounting kit for UNO-3082/3084/3072LA	DiagAnywhere Remote Management and Control Utility
					

Ordering information

UNO-3072LA-A12E	Intel Atom N270 1.6 GHz, 1G RAM
UNO-3072LA-A13E	Intel Atom N270 1.6 GHz, 2G RAM
UNO-3072A-A33E	Intel Atom Dual Core D510 1.66 GHz, 2G RAM
UNO-3074A-A33E	Intel Atom Dual Core D510 1.66 GHz, 2G RAM
UNO-3084-D23E	Intel Core 2 Duo 1.6 GHz, 2G RAM
UNO-3084-D24E	Intel Core 2 Duo 1.6 GHz, 4G RAM
UNO-3073G-C54E	Intel Celeron 847 1.1 GHz, 4 GB RAM, 1 x PCIex16 + 2 x PCI expansion slots
UNO-3073GL-C44E	Intel Celeron 807UE 1.0 GHz, 4 GB RAM, 1 x PCIex1 + 2 x PCI expansion slots
UNO-3083G-D44E	Intel Core i7-2655LE 2.2 GHz, 4 GB RAM, 1 x PCIex16 + 2 x PCI expansion slots
UNO-3085G-D44E	Intel Core i7-2655LE 2.2 GHz, 4 GB RAM, 2 x PCIex8 + 3 x PCI expansion slots

Accessories Ordering information

UNO-WM80-AE	Panel/Wall Mounting Kits, UNO-3084/82/72LA series
UNO-PM80-AE	Panel mounting kit for UNO-3082/3084
PCLS-DIAGAW10	DiagAnywhere Remote Management and Control Utility
9663308401E	USB x 2 for UNO-3000 series
9663308402E	LPT x 1 for UNO-3000 series
9663308403E	RS-232 COM port x 2 and PS2 x 1 for UNO-3000 series