

Встраиваемые промышленные компьютеры автоматизации серии UNO-2000

ТЕХНИЧЕСКИЕ ХАРАКТЕРИСТИКИ

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Череповец (8202)49-02-64
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UNO-2483P

Intel® Core™ i7/Celeron Regular-Size Vision Controller w/ 4 x PoE, 4 x GbE, HDMI/VGA

NEW



Introduction

Advantech's UNO-2000 series of Embedded Automation Computers are Fanless with highly ruggedised with an embedded operating system (Windows CE, Windows Embedded 7/8, Linux-Embedded). It also includes iDoor technology which supports automation feature extensions such as industry fieldbus communication, Wi-Fi/3G, Digital I/O, including Palm, Small, and Regular-size Form-Factors with indicated market segments in terms of entry, value and performance product positioning. Both entry and value Embedded Automation Computers feature specific functions and they are suitable for data gateway, concentrator and data server applications. The performance model can shorten your development time and offer multiple networking interfaces to fulfill a diverse range of requirements.

Specifications

General

- **Certification** CE, FCC, UL, CCC, BSMI
- **Dimensions (W x D x H)** 252 x 149 x 68 mm (9.9" x 5.9" x 2.7")
- **Form Factor** Regular Size
- **Enclosure** Aluminum Housing
- **Mounting** Stand, Wall, VESA (Optional)
- **Weight (Net)** 1.6kg (3.5lbs)
- **Power Requirement** 24V_{DC} ± 20%
- **Power Consumption** 48W (Typical), 134W (Max)
- **OS Support** Microsoft® Windows 7/8

System Hardware

- **BIOS** AMI UEFI 128Mbit Flash BIOS
- **Watchdog Timer** Programmable 256 levels timer interval, from 1 to 255 sec
- **Processor** Intel 4th Gen Core™ i7-4650U ULT 1.7 GHz Dual Core, 4MB L2 Intel 4th Gen Celeron® 2980U ULT 1.6 GHz Dual Core, 2MB L2 Integrated Intel 8 Series Chipset
- **System Chip** On-board 4GB DDR3L 1600 MHz for UNO-2483P-4C3AE
- **Memory** On-board 8GB DDR3L 1600 MHz for UNO-2483P-474AE
- **Graphics Engine** Intel® HD Graphics 5000/Intel® HD Graphics
- **Ethernet** Intel® i210-IT GbE, 802.1Qav, IEEE1588/802.1AS, 802.3az Intel® i218-LM GbE, Intel® AMT, IEEE1588/802.1AS, 802.3az Intel® i350-AM2 GbE, 802.1Q, IEEE1588/802.1AS, 802.3az
- **LED Indicators** LEDs for Power, battery, LAN (Active, Status), Tx/Rx and HDD
- **Storage** One mSATA Two drive bays for SATA 2.5" HDD (Compatible with 9.5mm height HDD)
- **Expansion** 1 x Half-size mPCIe slot, mPCIe 2.0 1 x full size mPCIe slot when without 2 POE module through iDoor

I/O Interfaces

- **Serial Ports** 2 x RS-232, DB9, 50-115.2kbps 2 x RS-422/485, DB9, auto flow control, 50-115.2kbps
- **LAN Ports** 4 x RJ45, 10/100/1000 Mbps IEEE 802.3u 1000Base-T Fast Ethernet
- **PoE** 4 x RJ45, IEEE 802.3af compliant, 15.4W per port
- **USB Ports** 4 x USB Ports (2 x USB 2.0, 2 x USB 3.0 compliant)
- **Displays** 1 x VGA, supports 1920 x 1200 @ 60Hz 24bpp 1 x HDMI 1.4a, supports 3200 x 2000 @ 60Hz 24bpp
- **Audio** Line-In, Line-Out
- **Power Connector** 1 x 3 Pins, Terminal Block

Features

- Intel® 4th Generation Core™ i7/Celeron Processors up to 1.9GHz with 4GB/8GB DDR3L Memory
- 4 PoE, 4 x GbE, 4 x USB 2.0/3.0, 2 x RS-232, 2 x RS-422/485, 1 x VGA, 1 x HDMI, Audio
- Comprehensive Palm, Small, Regular-size form-factors
- Compact with Fanless Design
- Rubber Stopper Design with Captive Screw
- Dual HDD/SSD support with RAID 0/1 in regular-size
- Diverse system I/O and Isolated Digital I/O by iDoor Technology
- 3G/GPS/GPRS/Wi-Fi Communication by iDoor Technology
- Supports MRAM by iDoor Technology
- Chassis Grounding Protection
- LAN Redundancy (Teaming)
- Fault-Protected RS-485 Transceivers With Extended Common-Mode Range

Environment

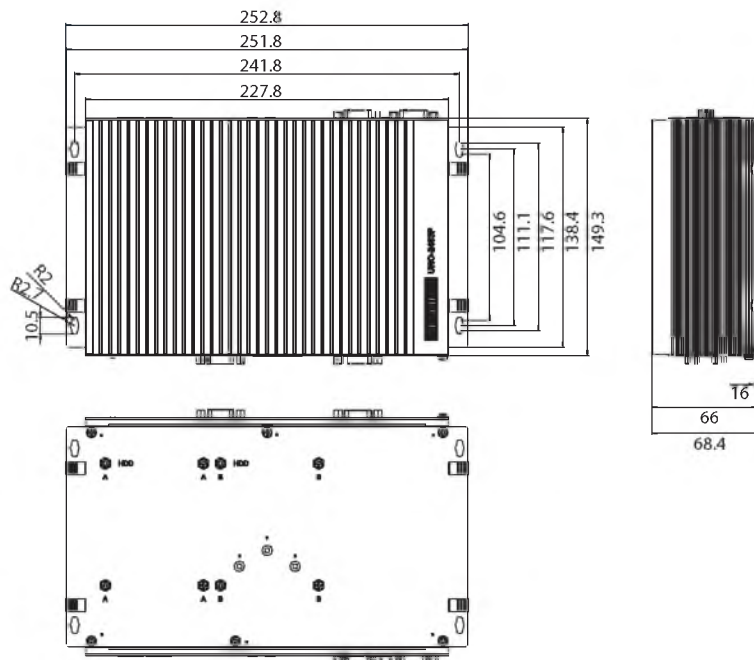
- **Operating Temperature** - 20 ~ 50°C (-4 ~ 122°F) @ 5 ~ 85% RH with 0.7m/s airflow
- **Storage Temperature** - 40 ~ 85°C (-40 ~ 185°F)
- **Relative Humidity** 10 ~ 95% RH @ 40°C, non-condensing
- **Shock Protection** Operating, IEC 60068-2-27, 50G, half sine, 11ms
- **Vibration Protection** Operating, IEC 60068-2-64, 2Grms, random, 5 ~ 500Hz, 1hr/axis (mSATA) Operating, IEC 60068-2-64, 0.7Grms, random, 5 ~ 500Hz, 1hr/axis (HDD)
- **Ingress Protection** IP40

Application Software

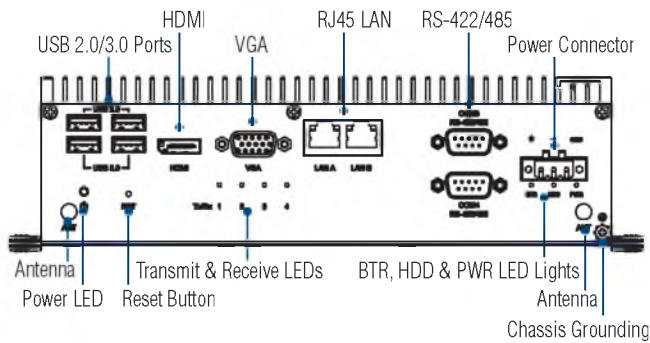
	Version : V2.1 or above An innovative remote device management software, allowing efficient remote monitoring, quick recovery & backup, and real-time remote configuration, to create a more intelligent and interconnected embedded computing solution.
	Version : V7.1 or above WebAccess, as the core of Advantech's IoT solution, is full web browser-based software package for HMI and SCADA software. All HMI and SCADA software features including: Animated Graphics Displays, Real-time Data, Control, Trends, Alarms and Logs, are available in a standard web browser. WebAccess is built around the latest internet technologies. With its open architecture, vertical domain applications can easily be integrated.
	Version : V2.0.3.8 or above Panel Express, a windows based HMI mini SCADA, realizes the cross platform flexibility offered by WebOP Designer to switch hardware for the consideration of cost and performance become an easy job. Panel Express software provides the best economic and express solution for data intensive high-end HMI applications.
	Version : V2.0.3.8 or above An easy to use integrated development tool featuring solution-oriented screen objects, high-end graphics, Windows fonts for multi-language applications. WebOP runtime, a part of WebOP Designer, guarantees reliability and performance because of the minimum system overhead, high communication data rates, and sub-second screen switching.

Dimensions

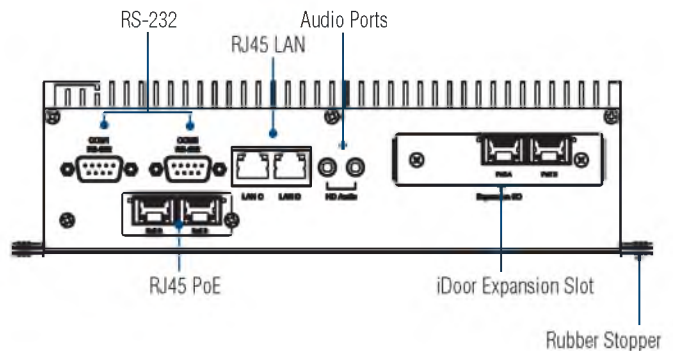
Unit: mm



Front I/O View



Rear I/O View



Ordering Information

- **UNO-2483P-4C3AE** Intel® Celeron 2980U ULT 1.6GHz, 4GB, 4 x PoE, 4 x LANs
- **UNO-2483P-474AE** Intel® Core™ i7-4650U ULT 1.7GHz, 8GB, 4 x PoE, 4 x LANs

Accessories

- **1757002161** 150W AC to DC power adapter (Commercial Grade)
- **1702002600** Power Cable US Plug 1.8 M (Industrial Grade)
- **1702002605** Power Cable EU Plug 1.8 M (Industrial Grade)
- **1702031801** Power Cable UK Plug 1.8 M (Industrial Grade)
- **1700000596** Power Cable China/Australia Plug 1.8 M (Industrial Grade)
- **1700001524** Power Cable 3-pin US type 1.8 M (Commercial Grade)
- **170203183C** Power Cable 3-pin EU type 1.8 M (Commercial Grade)
- **170203180A** Power Cable 3-pin UK type 1.8 M (Commercial Grade)

Embedded OS & Automation Software

- **968WEXP003X** PanelExpress V2.0 300 tags S/W license
- **968WEXP015X** PanelExpress V2.0 1500 tags S/W license
- **968WEXP050X** PanelExpress V2.0 5000 tags S/W license

UNO-2483G

Intel® Core™ i7/i3/Celeron Regular-Size Automation Computer w/ 4 x GbE, 3 x mPCIe, HDMI/VGA

NEW



Introduction

Advantech's UNO-2000 series of Embedded Automation Computers are Fanless with highly ruggedised with an embedded operating system (Windows CE, Windows Embedded 7/8, Linux-Embedded). It also includes iDoor technology which supports automation feature extensions such as industry fieldbus communication, Wi-Fi/3G, Digital I/O, including Palm, Small, and Regular-size Form-Factors with indicated market segments in terms of entry, value and performance product positioning. Both entry and value Embedded Automation Computers feature specific functions and they are suitable for data gateway, concentrator and data server applications. The performance model can shorten your development time and offer multiple networking interfaces to fulfill a diverse range of requirements.

Specifications

General

- **Certification** CE, FCC, UL, CCC, BSMI
- **Dimensions (W x D x H)** 252 x 149 x 62 mm (9.9" x 5.9" x 2.4")
- **Form Factor** Regular Size
- **Enclosure** Aluminum Housing
- **Mounting** Stand, Wall, VESA (Optional)
- **Weight (Net)** 1.6kg (3.5lbs)
- **Power Requirement** 24V_{DC} ± 20%
- **Power Consumption** 28W (Typical), 72W (Max)
- **OS Support** Microsoft® Windows 7/8

System Hardware

- **BIOS** AMI UEFI 128Mbit Flash BIOS
- **Watchdog Timer** Programmable 256 levels timer interval, from 1 to 255 sec
- **Processor** 4th Gen Intel® Core™ i7-4650U ULT 1.7 GHz Dual Core, 4MB L2
4th Gen Intel® Core™ i3-4010U ULT 1.7 GHz Dual Core, 3MB L2
4th Gen Intel® Celeron® 2980U ULT 1.6 GHz Dual Core, 2MB L2
- **System Chip** Integrated Intel 8 Series Chipset
- **Memory** On-board 4GB DDR3L 1600 MHz for UNO-2483G-4C3AE
On-board 8GB DDR3L 1600 MHz for UNO-2483G-434AE and UNO-2483G-474AE
- **Graphics Engine** Intel® HD Graphics 5000/4400
- **Ethernet** Intel® i210-IT GbE, 802.1Qav, IEEE1588/802.1AS, 802.3az
Intel® i218-LM GbE, Intel® AMT, IEEE1588/802.1AS, 802.3az
- **LED Indicators** LEDs for Power, battery, LAN (Active, Status), Tx/Rx and HDD
- **Storage** One mSATA
Two drive bays for SATA 2.5" HDD (Compatible with 9.5mm height HDD)
CFast drive by iDoor Technology (Optional)
- **Expansion** 2 x Full-size mPCIe slot, mPCIe 2.0

I/O Interfaces

- **Serial Ports** 2 x RS-232, DB9, 50-115.2kbps
2 x RS-422/485, DB9, auto flow control, 50-115.2kbps
- **LAN Ports** 4 x RJ45, 10/100/1000 Mbps IEEE 802.3u 1000Base-T Fast Ethernet
- **USB Ports** 4 x USB Ports (2 x USB 2.0, 2 x USB 3.0 compliant)
- **Displays** 1 x VGA, supports 1920 x 1200 @ 60Hz 24bpp
1 x HDMI 1.4a, supports 3200 x 2000 @ 60Hz 24bpp
- **Audio** Line-In, Line-Out
- **Power Connector** 1 x 3 Pins, Terminal Block

Features

- 4th Generation Intel® Core™ i7/i3/Celeron Processors up to 1.9GHz with 4GB/8GB DDR3L Memory
- 4 x GbE, 4 x USB 2.0/3.0, 2 x RS-232, 2 x RS-422/485, 1 x VGA, 1 x HDMI, Audio
- Comprehensive Palm, Small, Regular-size form-factor
- Compact with Fanless Design
- Rubber Stopper Design with Captive Screw
- Dual HDD/SSD support with RAID 0/1 in regular-size
- Diverse system I/O and Isolated Digital I/O by iDoor Technology
- 3G/GPS/GPRS/Wi-Fi Communication by iDoor Technology
- Supports MRAM by iDoor Technology
- Chassis Grounding Protection
- LAN Redundancy (Teaming)
- Fault-Protected RS-485 Transceivers With Extended Common-Mode Range

Environment

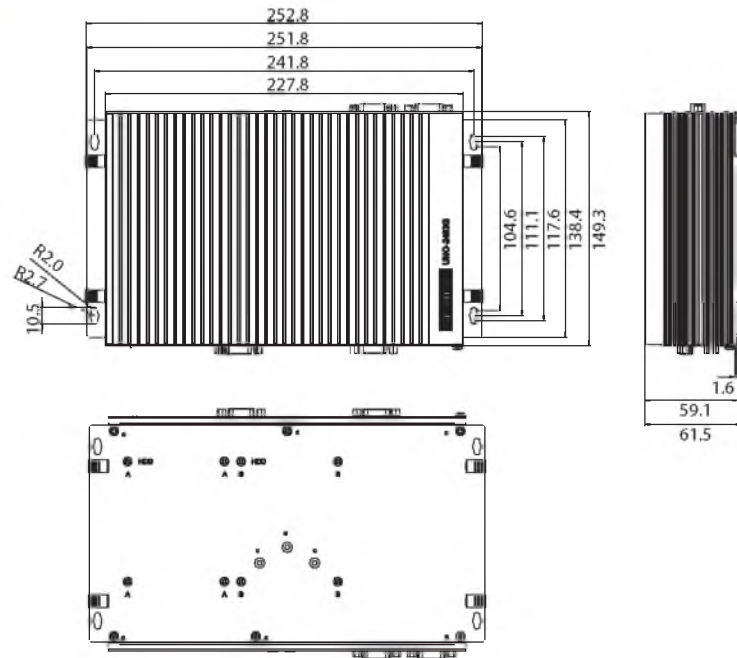
- **Operating Temperature** - 20 ~ 60°C (-4 ~ 140°F) @ 5 ~ 85% RH with 0.7m/s airflow
- **Storage Temperature** - 40 ~ 85°C (-40 ~ 185°F)
- **Relative Humidity** 10 ~ 95% RH @ 40°C, non-condensing
- **Shock Protection** Operating, IEC 60068-2-27, 50G, half sine, 11ms
- **Vibration Protection** Operating, IEC 60068-2-64, 2Grms, random, 5 ~ 500Hz, 1hr/axis (mSATA)
Operating, IEC 60068-2-64, 0.7Grms, random, 5 ~ 500Hz, 1hr/axis (HDD)
- **Ingress Protection** IP40

Application Software

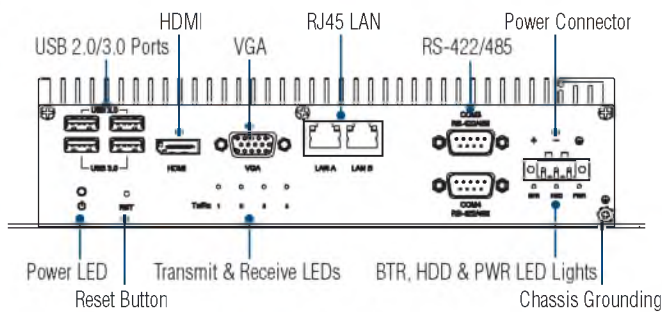
	Version : V2.1 or above An innovative remote device management software, allowing efficient remote monitoring, quick recovery & backup, and real-time remote configuration, to create a more intelligent and interconnected embedded computing solution.
	Version : V7.1 or above WebAccess, as the core of Advantech's IoT solution, is full web browser-based software package for HMI and SCADA software. All HMI and SCADA software features including: Animated Graphics Displays, Real-time Data, Control, Trends, Alarms and Logs, are available in a standard web browser. WebAccess is built around the latest internet technologies. With its open architecture, vertical domain applications can easily be integrated.
	Version : V2.0.3.8 or above Panel Express, a windows based HMI mini SCADA, realizes the cross platform flexibility offered by WebOP Designer to switch hardware for the consideration of cost and performance become an easy job. Panel Express software provides the best economic and express solution for data intensive high-end HMI applications.
	Version : V2.0.3.8 or above An easy to use integrated development tool featuring solution-oriented screen objects, high-end graphics, Windows fonts for multi-language applications. WebOP runtime, a part of WebOP Designer, guarantees reliability and performance because of the minimum system overhead, high communication data rates, and sub-second screen switching.

Dimensions

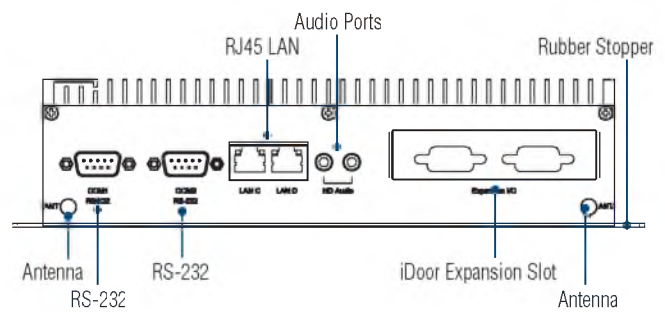
Unit: mm



Front I/O View



Rear I/O View



Ordering Information

- **UNO-2483G-4C3AE** Intel® Celeron 2980U ULT 1.6GHz, 4GB, 4 x LANs, 2 x mPCIe
- **UNO-2483G-434AE** Intel® Core™ i3-4010U ULT 1.7GHz, 8GB, 4 x LANs, 2 x mPCIe
- **UNO-2483G-474AE** Intel® Core™ i7-4650U ULT 1.7GHz, 8GB, 4 x LANs, 2 x mPCIe

iDoor Modules

- **PCM-24D4R2-AE** 4-Port Non-Isolated RS-232 mPCIe, DB37
- **PCM-24D4R4-AE** 4-Port Non-Isolated RS-422/485 mPCIe, DB37
- **PCM-26D2CA-AE** 2-Port Isolated CANBus mPCIe, CANOpen, DB9
- **PCM-27D24DI-AE** 24-Channel Isolated Digital I/O w/ counter mPCIe, DB37
- **PCM-24R1TP-AE** 1-Port Gigabit Ethernet, Intel® 82574L, mPCIe, RJ45
- **PCM-2300MR-AE** MR4A16B, MRAM, 2 MByte, mPCIe
- **PCM-24R2GL-AE** 2-Port Gigabit Ethernet, mPCIe, RJ45
- **PCM-24R2PE-AE** 2-Port Gigabit Ethernet, IEEE 802.3af (PoE) Compliant, mPCIe, RJ45
- **PCM-24S2WF-AE** WiFi 802.11 a/b/g/n 2T2R w/ Bluetooth4.0, Half-size mPCIe, 2-port SMA
- **PCM-24S23G-AE** Wide-Temp 3.75G HSPA and GPS, 2-in-1, Full-size mPCIe w/ Redundant SIM Card holder, 2-port SMA

Accessories

- **1757002321** 63WC to DC UNO series power adapter (Industrial Grade)
- **PWR-249-AE** 65W AC to DC power adapter (Commercial Grade)
- **PWR-244-AE** 96W AC to DC power adapter (Commercial Grade)
- **1702002600** Power Cable US Plug 1.8 M (Industrial Grade)
- **1702002605** Power Cable EU Plug 1.8 M (Industrial Grade)
- **1702031801** Power Cable UK Plug 1.8 M (Industrial Grade)
- **1700000596** Power Cable China/Australia Plug 1.8 M (Industrial Grade)
- **1700001524** Power Cable 3-pin US type 1.8 M (Commercial Grade)
- **170203183C** Power Cable 3-pin EU type 1.8 M (Commercial Grade)
- **170203180A** Power Cable 3-pin UK type 1.8 M (Commercial Grade)

Embedded OS & Automation Software

- **2070012443** Image WES7P MUI, V4.12 B001 for UNO-2483G
- **2070012949** Image WES7P X64 MUI, V4.12 B002 for UNO-2483G
- **968WEXP003X** PanelExpress V2.0 300 tags S/W license
- **968WEXP015X** PanelExpress V2.0 1500 tags S/W license
- **968WEXP050X** PanelExpress V2.0 5000 tags S/W license

UNO-2473G

Intel® Atom™ Regular-Size
Automation Computer w/ 4 x GbE,
3 x mPCIe, HDMI/VGA

Preliminary



Introduction

Advantech's UNO-2000 series of Embedded Automation Computers are Fanless with highly ruggedised with an embedded operating system (Windows CE, Windows XPE, Linux-Embedded). It also includes iDoor technology which supports automation feature extensions such as industry fieldbus communication, Wi-Fi/3G, Digital I/O, including Palm, Small, and Regular-size Form-Factors with indicated market segments in terms of entry, value and performance product positioning. Both entry and value Embedded Automation Computers feature specific functions and they are suitable for data gateway, concentrator and data server applications. The performance model can shorten your development time and offer multiple networking interfaces to fulfill a diverse range of requirements.

Specifications

General

▪ Certification	CE, FCC, UL, CCC, BSMI
▪ Dimensions (W x D x H)	252 x 149 x 62 mm (9.9" x 5.9" x 2.4")
▪ Form Factor	Regular Size
▪ Enclosure	Aluminum Housing
▪ Mounting	Stand, Wall, VESA (Optional)
▪ Weight (Net)	1.6kg (3.5lbs)
▪ Power Requirement	24V _{DC} ± 20%
▪ Power Consumption	28W (Typical), 48W(Max)
▪ OS Support	Microsoft® Windows 7/8

System Hardware

▪ BIOS	AMI UEFI 128Mbit Flash BIOS
▪ Watchdog Timer	Programmable 256 levels timer interval, from 1 to 255 sec
▪ Processor	Intel® Atom™ Processor E3845 1.91 GHz Quad Core, 2MB L2
▪ System Chip	Intel Atom SoC integrated
▪ Memory	On-board 4GB DDR3L 1600 MHz
▪ Graphics Engine	Intel® HD Graphics: Gen7 with 4EU
▪ Ethernet	Intel® i210-IT GbE, 802.1Qav, IEEE1588/802.1AS, 802.3az
▪ LED Indicators	LEDs for Power, battery, LAN (Active, Status), Tx/Rx and HDD
▪ Storage	One mSATA One drive bay for SATA 2.5" HDD (Compatible with 9.5mm height HDD) CFast drive by iDoor Technology (Optional)
▪ Expansion	3 x Full-size mPCIe slot, mPCIe 2.0

I/O Interfaces

▪ Serial Ports	2x RS-232, DB9, 50-115.2kbps 2x RS-422/485, DB9, auto flow control, 50-115.2kbps
▪ LAN Ports	4x RJ45, 10/100/1000 Mbps IEEE 802.3u 1000Base-T Fast Ethernet
▪ USB Ports	4x USB Ports (3 x USB2.0, 1 x USB3.0 compliant)
▪ Displays	1x VGA, supports 1920x1200@60Hz 24bpp 1x HDMI 1.4a, supports 1920x1080P @ 60Hz 24bpp
▪ Audio	Line-In, Line-Out
▪ Power Connector	1x 3 Pins, Terminal Block
▪ Grounding Protection	Chassis Grounding

Features

- 4th Generation Intel® Atom™ Processor up to 1.91GHz with 4GB DDR3L Memory
- 4 x GbE, 4 x USB 2.0/3.0, 2 x RS-232, 2 x RS-422/485, 1 x VGA, 1 x HDMI, Audio
- Comprehensive Palm, Small, Regular-size form-factor
- Compact with Fanless Design
- Rubber Stopper Design with Captive Screw
- Diverse system IO and Isolated Digital IO by iDoor Technology
- Supports Fieldbus Protocol by iDoor Technology
- 3G/GPS/GPRS/Wi-Fi Communication by iDoor Technology
- Supports MRAM by iDoor Technology
- Chassis Grounding Protection
- LAN Redundancy (Teaming)
- Fault-Protected RS-485 Transceivers With Extended Common-Mode Range

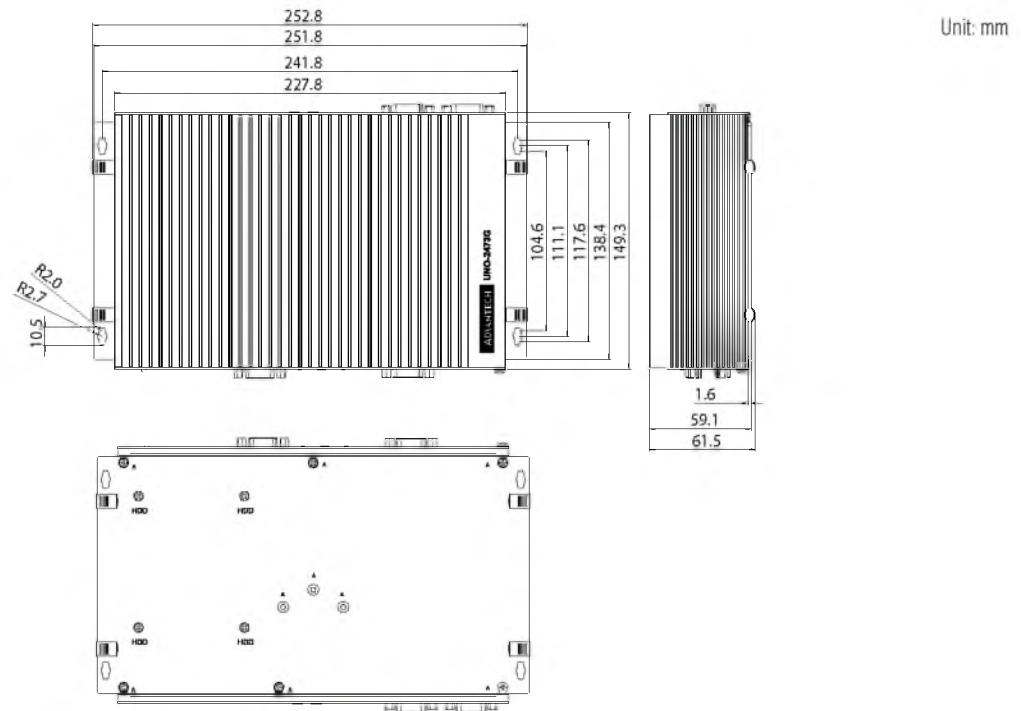
Environment

- **Operating Temperature** UNO-2473G-E3AE: -20 ~ 60°C (-4 ~ 140°F) @ 5 ~ 85% RH with 0.7m/s airflow
UNO-2473XXXXX: -40 ~ 60°C (-40 ~ 140°F) @ 5 ~ 85% RH with 0.7m/s airflow
- **Storage Temperature** -40 ~ 85°C (-40 ~ 185°F)
- **Relative Humidity** 10 ~ 95% RH @ 40°C, non-condensing
- **Shock Protection** Operating, IEC 60068-2-27, 50G, half sine, 11ms
- **Vibration Protection** Operating, IEC 60068-2-64, 2Grms, random, 5 ~ 500Hz, 1hr/axis (mSATA)
Operating, IEC 60068-2-64, 0.7Grms, random, 5 ~ 500Hz, 1hr/axis (HDD)
- **Ingress Protection** IP40

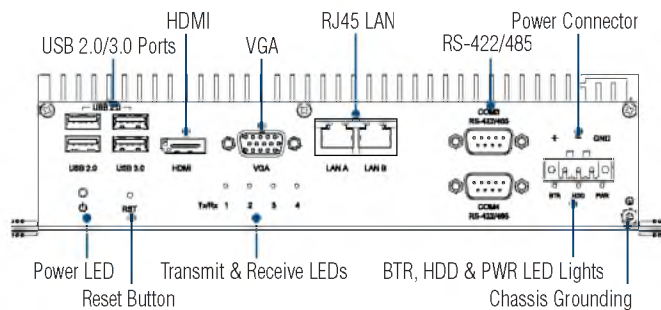
Application Software

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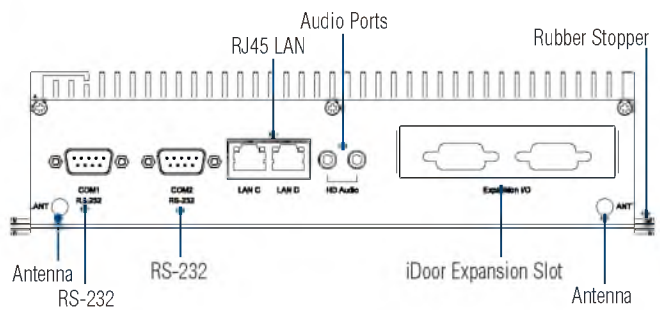
Dimensions



Front I/O View



Rear I/O View



Ordering Information

- UNO-2473G-E3AE Intel® Atom E3845 1.91GHz, 4GB, 4 x LANs, 3 x mPCIe

iDoor Modules

- PCM-2300MR-AE MR4A16B, 2MByte
- PCM-26D1PB-AE Hilscher netX100 FieldBus, ProfiBus, DB9 x 1
- PCM-26D2CA-AE SJA1000 CANBus, CANOpen, DB9 x 2
- PCM-24D2R4-AE OXPcie-952 UART, Isolated RS-422/485, DB9 x 2
- PCM-24D2R2-AE OXPcie-952 UART, Isolated RS-232, DB9 x 2
- PCM-24D4R4-AE OXPcie-954 UART, Non-Isolated RS-422/485, DB37 x 1
- PCM-24D4R2-AE OXPcie-954, UART, Non-Isolated RS-232, DB37 x 1
- PCM-27D24DI-AE Digital I/O, 16DI / 8DO, DB37 x 1

Accessories

- 1757002321 63W, AC-DC, 100-240V, 24VDC 2.62A Power Supply
- 1702002600 Power Cable US Plug 1.8 M
- 1702002605 Power Cable EU Plug 1.8 M
- 1702031801 Power Cable UK Plug 1.8 M
- 1700000596 Power Cable China/Australia Plug 1.8 M

Embedded OS & Automation Software

- 968WEXP003X PanelExpress V2.0 300 tags S/W license
- 968WEXP015X PanelExpress V2.0 1500 tags S/W license
- 968WEXP050X PanelExpress V2.0 5000 tags S/W license

UNO-2362G

AMD® Dual Core T40E Small-Size Automation Computer w/ 1 x GbE, 1 x mPCIe, HDMI/DP

NEW



Introduction

Advantech's UNO-2000 series of Embedded Automation Computers are Fanless with highly ruggedised with an embedded operating system (Windows CE, Windows XPE, Linux-Embedded). It also includes iDoor technology which supports automation feature extensions such as industry fieldbus communication, Wi-Fi/3G, Digital I/O, including Palm, Small, and Regular-size Form-Factors with indicated market segments in terms of entry, value and performance product positioning. Both entry and value Embedded Automation Computers feature specific functions and they are suitable for data gateway, concentrator and data server applications. The performance model can shorten your development time and offer multiple networking interfaces to fulfill a diverse range of requirements.

Specifications

General

- **Certification** CE, FCC, UL, CCC, BSMI
- **Dimensions (W x D x H)** 190 x 107 x 47 mm (7.5" x 4.2" x 1.8")
- **Form Factor** Small Size
- **Enclosure** Aluminum Housing
- **Mounting** Stand, Wall, VESA (Optional)
- **Weight (Net)** 1.0kg (2.2lbs)
- **Power Requirement** 24V_{DC} ±15%
- **Power Consumption** 14W (Typical), 24W(Max)
- **OS Support** Microsoft® Windows XP/7/8 WES7
Linux Fedora

System Hardware

- **BIOS** AMI UEFI 32Mbit Flash BIOS
- **Watchdog Timer** Programmable 256 levels timer interval, from 1 to 255 sec
- **Processor** AMD® G-series T40E 1.0GHz dual core, 512MB
- **System Chip** AMD® A50M FCH
- **Memory** On-board 2GB DDR3 833/1066 MHz
- **Graphics Engine** AMD Radeon™ HD 6250 DirectX® 11 graphics with UVD 3.0 2D/3D Accelerator
- **Ethernet** Realtek RTL8111E, Marvell 88E6172 Giga Ethernet switch with daisy chain technology
- **LED Indicators** LEDs for Power, battery, LAN (Active, Status) and HDD
- **Storage** One mSATA drive
One drive bay for SATA 2.5" HDD (Compatible with 9.5mm height HDD)
Note: iDoor technology isn't compatible with HDD storage.
CFast drive by iDoor Technology (Optional)
- **Expansion** 1 x Full-size mPCIe slot, mPCIe 2.0 (supports SIM card)

I/O Interfaces

- **Serial Ports** 1x RS-232, DB9, 50-115.2kbps
1x RS-485, DB9, auto flow control, 50-115.2kbps
- **LAN Ports** 2x RJ45, 10/100/1000 Mbps IEEE 802.3u 1000Base-T Fast Ethernet
- **USB Ports** 4x USB 2.0 Compliant
- **Displays** 1x DisplayPort 1.1, supports 1920x1200 (HD 6250) @ 30 bpp
1x HDMI v1.3, supports 1920x1080p @ 36 bpp
- **Power Connector** 1x 2 Pins, Terminal Block
- **Grounding Protection** Chassis Grounding

Features

- Onboard AMD(R) Dual Core T40E 1.0GHz processors with 2GB DDR3 SO-DIMM Memory
- 1 x GbE, 4 x USB 2.0, 1 x RS-232, 1 x RS-485, 1 x DP, 1 x HDMI
- Comprehensive Palm, Small, Regular-size form-factor
- Compact with Fanless Design
- Rubber Stopper Design with Captive Screw
- Daisy-Chain for Ethernet with auto-bypass protection enabled
- Dual HDD/SSD support with RAID 0/1 in regular-size
- Diverse system IO and Isolated Digital IO by iDoor Technology
- Supports Fieldbus Protocol by iDoor Technology
- 3G/GPS/GPRS/WiFi Communication by iDoor Technology
- Supports Battery-backup MRAM by iDoor Technology
- Chassis Grounding Protection

Environment

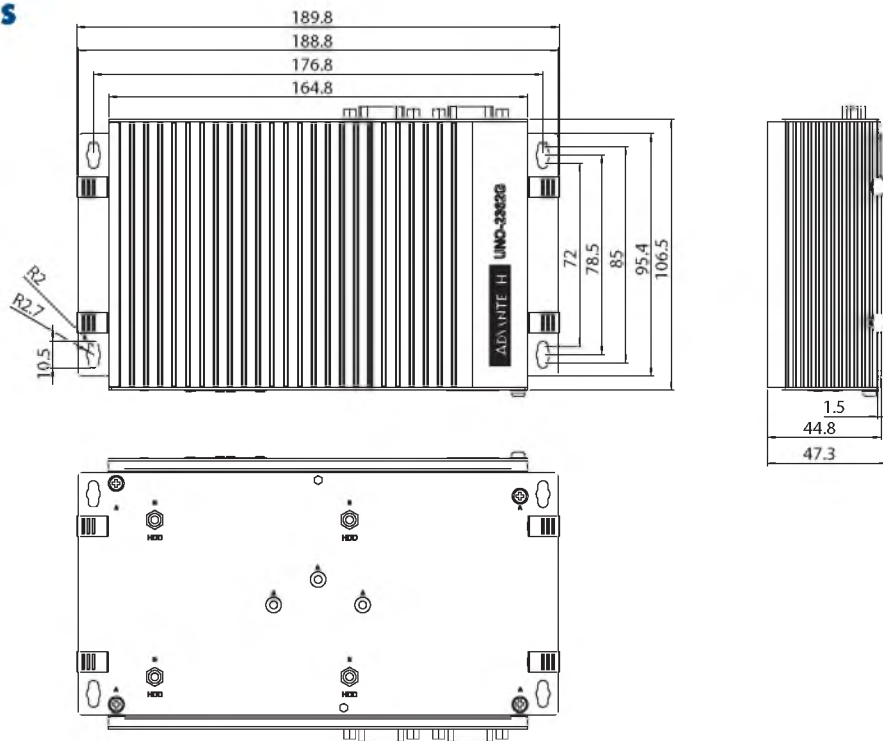
- **Operating Temperature** - 10 ~ 60°C (14 ~ 140°F) @ 5 ~ 85% RH with 0.7m/s airflow
- **Storage Temperature** - 40 ~ 85°C (-40 ~ 185°F)
- **Relative Humidity** 10 ~ 95% RH @ 40°C, non-condensing
- **Shock Protection** Operating, IEC 60068-2-27, 50G, half sine, 11ms
- **Vibration Protection** Operating, IEC 60068-2-64, 2Grms, random, 5 ~ 500Hz, 1hr/axis (mSATA)
Operating, IEC 60068-2-64, 0.75Grms, random, 5 ~ 500Hz, 1hr/axis (HDD)
- **Ingress Protection** IP40

Application Software

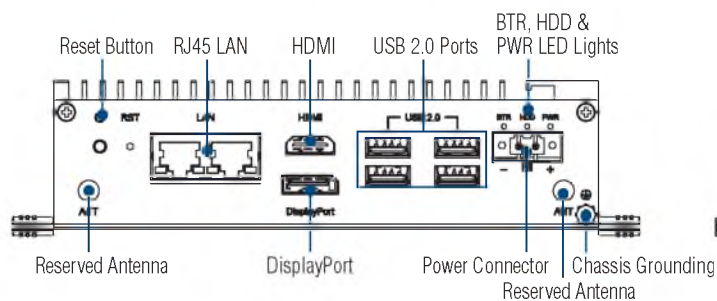
	Version : V2.1 or above An innovative remote device management software, allowing efficient remote monitoring, quick recovery & backup, and real-time remote configuration, to create a more intelligent and interconnected embedded computing solution.
	Version : V7.1 or above WebAccess, as the core of Advantech's IoT solution, is full web browser-based software package for HMI and SCADA software. All HMI and SCADA software features including: Animated Graphics Displays, Real-time Data, Control, Trends, Alarms and Logs, are available in a standard web browser. WebAccess is built around the latest internet technologies. With its open architecture, vertical domain applications can easily be integrated.
	Version : V2.0.3.8 or above Panel Express, a windows based HMI mini SCADA, realizes the cross platform flexibility offered by WebOP Designer to switch hardware for the consideration of cost and performance become an easy job. Panel Express software provides the best economic and express solution for data intensive high-end HMI applications.
	Version : V2.0.3.8 or above An easy to use integrated development tool featuring solution-oriented screen objects, high-end graphics, Windows fonts for multi-language applications. WebOP runtime, a part of WebOP Designer, guarantees reliability and performance because of the minimum system overhead, high communication data rates, and sub-second screen switching.

Dimensions

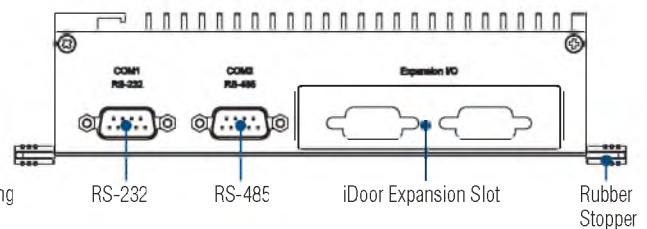
Unit: mm



Front IO View



Rear IO View



Ordering Information

- **UNO-2362G-T2AE** AMD G-series T40E 1.0GHz, 2GB, 1 x GbE, 1 x mPCIe, HDMI/DP

iDoor Modules

- **PCM-2300MR-AE** MR4A16B, 2MByte
- **PCM-26D1PB-AE** Hilscher netX100 FieldBus, ProfiBus, DB9 x 1
- **PCM-26D2CA-AE** SJA1000 CANBus, CANOpen, DB9 x 1
- **PCM-24D2R4-AE** OXPcIe-952 UART, Isolated RS-422/485, DB9 x 2
- **PCM-24D2R2-AE** OXPcIe-952 UART, Isolated RS-232, DB9 x 2
- **PCM-24D4R4-AE** OXPcIe-954 UART, Non-Isolated RS-422/485, DB37 x 1
- **PCM-24D4R2-AE** OXPcIe-954, UART, Non-Isolated RS-232, DB37 x 1
- **PCM-27D24DI-AE** Digital I/O, 16DI / 8DO, DB37 x 1

Accessories

- **1757002321** 63W, AC-DC, 100-240V, 24VDC 2.62A Power Supply
- **1702002600** Power Cable US Plug 1.8 M
- **1702002605** Power Cable EU Plug 1.8 M
- **1702031801** Power Cable UK Plug 1.8 M
- **1700000596** Power Cable China/Australia Plug 1.8 M

Embedded OS & Automation Software

- **2070012411** Image WES7P MUI. V4.12 for UNO-2362G
- **968WEXP003X** PanelExpress V2.0 300 tags S/W license
- **968WEXP015X** PanelExpress V2.0 1500 tags S/W license
- **968WEXP050X** PanelExpress V2.0 5000 tags S/W license

UNO-2272G

Intel® Atom™ Palm-Size Automation Computer with 1 x GbE, 2 x mPCIe, VGA/HDMI

NEW



Introduction

Advantech's UNO-2000 series of Embedded Automation Computers are Fanless with highly ruggedized with an embedded operating system (Linux-Embedded). It also includes iDoor technology which supports automation feature extensions such as industry fieldbus communication, Wi-Fi/3G, Digital I/O, including Palm, Small, and Regular-size Form-Factors with indicated market segments in terms of entry, value and performance product positioning. Both entry and value Embedded Automation Computers feature specific functions and they are suitable for data gateway, concentrator and data server applications. The performance model can shorten your development time and offer multiple networking interfaces to fulfill a diverse range of requirements.

Specifications

General

▪ Certification	CE, FCC, UL, CCC, BSMI
▪ Dimensions (W x D x H)	157 x 88 x 50 mm (6.2" x 3.5" x 2.0")
▪ Form Factor	Palm Size
▪ Enclosure	Aluminum Housing
▪ Mounting	Stand, Wall, VESA (Optional)
▪ Weight (Net)	0.8 kg (1.76 lbs)
▪ Power Requirement	24V _{DC} ± 20%
▪ Power Consumption	12W (Typical), 20W (Max)
▪ OS Support	Microsoft® Windows 7, WES7, Advantech Linux

System Hardware

▪ BIOS	AMI EFI64 Mbit
▪ Watchdog Timer	Programmable 256 levels timer interval, from 1 to 255 sec
▪ Processor	Intel Atom Dual Core N2800 1.86 GHz Intel Atom Quad Core J1900 2 GHz
▪ System Chip	Intel Atom SoC integrated
▪ Memory	Built-in 2GB DDR3 1600 MHz for UNO-2272G-N2AE Built-in 2GB DDR3L 1333 MHz for UNO-2272G-J2AE
▪ Graphics Engine	Intel® HD Graphics
▪ Ethernet	Intel® 82583V GbE, 802.1Qav, IEEE1588/802.1AS, 802.3az Intel® 82583V GbE, 802.1Qav, for UNO-2272G-N2AE Intel® i210 GbE, 802.1Qav, for UNO-2272G-J2AE
▪ LED Indicators	LEDs for Power, HDD, LAN (Active>Status)
▪ Storage	1 x half-size mSATA for UNO-2272G-J2AE 1 x full-size mSATA for UNO-2272G-N2AE Supports HDD/SSD by project
▪ Expansion	1 x Full-size mPCIe slot, 1 x Half-size mPCIe slot, mPCIe Rev. 2.0 for UNO-2272G-N2AE 2 x Full-size mPCIe slot, mPCIe Rev. 2.0 for UNO-2272G-J2AE

I/O Interfaces

▪ Serial Ports	1 x RS-232, DB9, 50-115.2kbps
▪ LAN Ports	1 x RJ45, 10/100/1000 Mbps IEEE 802.3u 1000Base-T Fast Ethernet
▪ USB Ports	3 x USB 2.0 for UNO-2272G-N2AE 2 x USB 2.0 and 1 x USB 3.0 for UNO-2272G-J2AE
▪ Displays	1 x VGA, supports 1920x1200 @ 60Hz 24bpp for UNO-2272G-N2AE 1 x HDMI, supports 1920 x 1080 @ 60Hz for UNO-2272G-J2AE
▪ Audio	Line-Out
▪ Power Connector	1 x 2 Pins, Terminal Block
▪ Grounding Protection	Chassis Grounding

Features

- Intel® Atom™ N2800/J1900 Processors up to 2.41 GHz with 2GB DDR3/DDR3L Memory
- 1 x GbE, 3 x USB 2.0/3.0, 1 x RS-232, 1 x VGA or HDMI, Audio
- Comprehensive Palm, Small, Regular-size form-factor
- Compact with Fanless Design
- Rubber Stopper Design with Captive Screw
- Diverse system I/O and Isolated Digital I/O by iDoor Technology
- Supports Fieldbus Protocol by iDoor Technology
- 3G/GPS/GPRS/Wi-Fi Communication by iDoor Technology
- Supports MRAM by iDoor Technology
- Chassis Grounding Protection

Environment

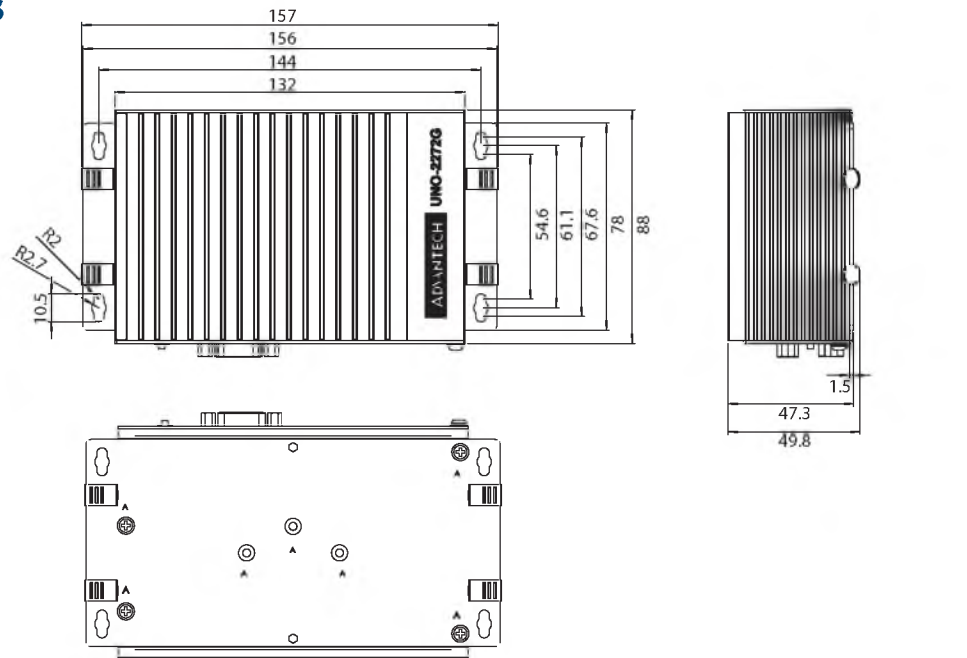
- **Operating Temperature** - 20 ~ 60°C (-4 ~ 140°F) @ 5 ~ 85% RH with 0.7 m/s airflow for UNO-2272G-N2AE
-10 ~ 55°C (14-131) @ 5 ~ 85% RH with 0.7 m/s airflow for UNO-2272G-J2AE
- **Storage Temperature** - 40 ~ 85°C (-40 ~ 185°F)
- **Relative Humidity** 10 ~ 95% RH @ 40°C, non-condensing
- **Shock Protection** Operating, IEC 60068-2-27, 50G, half sine, 11 ms
- **Vibration Protection** Operating, IEC 60068-2-64, 2 Grms, random, 5 ~ 500 Hz, 1hr/axis (mSATA)
- **Ingress Protection** IP40

Application Software

	Version : V2.1 or above An innovative remote device management software, allowing efficient remote monitoring, quick recovery & backup, and real-time remote configuration, to create a more intelligent and interconnected embedded computing solution.
	Version : V7.1 or above WebAccess, as the core of Advantech's IoT solution, is full web browser-based software package for HMI and SCADA software. All HMI and SCADA software features including: Animated Graphics Displays, Real-time Data, Control, Trends, Alarms and Logs, are available in a standard web browser. WebAccess is built around the latest internet technologies. With its open architecture, vertical domain applications can easily be integrated.
	Version : V2.0.3.8 or above Panel Express, a windows based HMI mini SCADA, realizes the cross platform flexibility offered by WebOP Designer to switch hardware for the consideration of cost and performance become an easy job. Panel Express software provides the best economic and express solution for data intensive high-end HMI applications.
	Version : V2.0.3.8 or above An easy to use integrated development tool featuring solution-oriented screen objects, high-end graphics, Windows fonts for multi-language applications. WebOP runtime, a part of WebOP Designer, guarantees reliability and performance because of the minimum system overhead, high communication data rates, and sub-second screen switching.

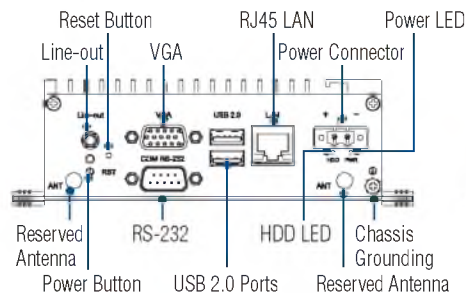
Dimensions

Unit: mm

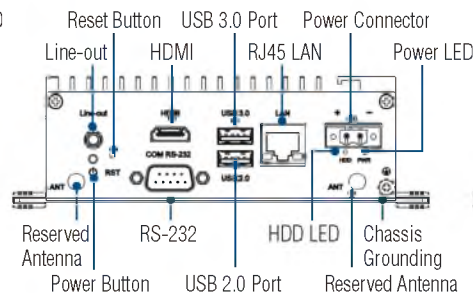


Front I/O View

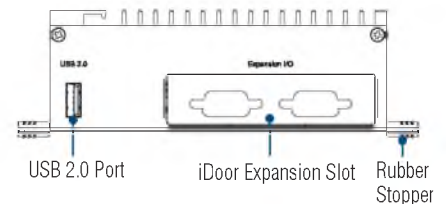
UNO-2272G-N2AE



UNO-2272G-J2AE



Rear I/O View



Ordering Information

- UNO-2272G-N2AE Intel Atom N2800 1.86GHz, 2GB, 1xLANs, 2xmPCIe
- UNO-2272G-J2AE Intel Atom J1900 2GHz, 2GB, 1xLANs, 2xmPCIe

iDoor Modules

- PCM-24S2WF-AE 802.11 a/b/g/n 2T2R w/ Bluetooth4.0, Half-size mPCIe, 2-port SMA
- PCM-24U2U3-AE 2-Port USB 3.0, mPCIe, USB-A type
- PCM-24R2GL-AE 2-Port Gigabit Ethernet, mPCIe, RJ45
- PCM-24D2R2-AE 2-Port Isolated RS-232 mPCIe, DB9
- PCM-24D4R4-AE 4-Port Non-Isolated RS-422/485 mPCIe, DB37
- PCM-24R1TP-AE 1-Port Gigabit Ethernet, Intel® 82574L, mPCIe, RJ45
- PCM-27D24DI-AE 24-Channel Isolated Digital I/O w/ counter mPCIe, DB37
- PCM-26D1DB-MAE 1-Port Hilscher netX100 FieldBus mPCIe, PROFIBUS, DB9, Master
- PCM-26D1DB-SAE 1-Port Hilscher netX100 FieldBus mPCIe, PROFIBUS, DB9, Slave
- PCM-26R2PN-MAE 2-Port Hilscher netX100 FieldBus mPCIe, PROFINET, RJ45, Master
- PCM-26R2PN-SAE 2-Port Hilscher netX100 FieldBus mPCIe, PROFINET, RJ45, Slave

Accessories

- 96PSA-A63W24T2 63WC to DC UNO series power adapter (Industrial Grade)
- PWR-249-AE 65W AC to DC power adapter (Commercial Grade)
- 1702002600 Power Cable US Plug 1.8 M (Industrial Grade)
- 1702002605 Power Cable EU Plug 1.8 M (Industrial Grade)
- 1702031801 Power Cable UK Plug 1.8 M (Industrial Grade)
- 1700000596 Power Cable China/Australia Plug 1.8 M (Industrial Grade)
- 1700001524 Power Cable 3-pin US type 1.8 M (Commercial Grade)
- 170203183C Power Cable 3-pin EU type 1.8 M (Commercial Grade)
- 170203180A Power Cable 3-pin UK type 1.8 M (Commercial Grade)

Embedded OS & Automation Software

- 2070013098 Image WES7P X86 MUI, V4.12.B001 for UNO-2272G-Nx
- 968WEXP003X PanelExpress V2.0 300 tags S/W license
- 968WEXP015X PanelExpress V2.0 1500 tags S/W license
- 968WEXP050X PanelExpress V2.0 5000 tags S/W license

UNO-2174G/GL UNO-2184G

Intel® Celeron® Automation Computers
with 4 x GbE, 2 x Mini PCIe, DVI/DP/HDMI

Intel® Core™ i7 Automation Computer
with 4 x GbE, 2 x Mini PCIe, DVI/DP/HDMI



Features

- Onboard Intel Celeron 847E 1.1GHz/807UE 1.0GHz/Core i7-2655LE 2.2GHz/i7-3555LE 2.5GHz processors
- 2 x RS-232 and 2 x RS-232/422/485 ports with automatic flow control
- 4 x 10/100/1000Base-T Ethernet
- DVI-I, DP, HDMI support 2 x independent displays
- Audio with Mic in, Line in, Line out
- 6 x USB ports
- Supports 2 x PCI-104 plug-in card with daughterboard expansion
- Windows® WES 2009, WES 7 ready solution
- External accessible CFast slot
- Onboard system status LED indicators
- Supports wake on LAN and boot from LAN function
- Supports Power eSATA
- Isolation between chassis and power ground
- IP40 ingress protection

Introduction

The UNO-2184G & 2174G/GL are high-performance Intel 3rd generation Core i7-3555LE/Intel 2nd generation core i7-2655LE/847E/807UE grade controllers that support PCI-104 with daughterboard expansion, 3 x display, 6 x USB, and 2 x Mini PCIe socket. They also feature WLAN, 3G expansion and compatibility with Windows 7. The 4 x Gigabit LANs on the UNO-2184G support teaming function with fault tolerance, link aggregation, and load balance features. The UNO-2184G & 2174G/GL are high end computing platforms designed to support applications with tremendous data volume and 3D content.

Specifications

General

- Certification** CE, UL, CCC, FCC, C-Tick, BSMI
- Dimensions (W x D x H)** 255 x 152 x 69 mm (10" x 6.0" x 2.7")
- Enclosure** Aluminum
- Mounting** DIN-rail, Wallmount, VESA
- Power Consumption** UNO-2174G/GL: 30 W/ 20 W (Typical)
UNO-2184G: 40 W (Typical)
- Power Requirements** 9 ~ 36 V_{DC} (e.g. +24V @ 3A) (Min. 72W), AT/ATX
- Weight** 3.0 kg
- OS Support** Windows XP/7, WES7, WES-2009, Linux
- System Design** Fanless with no internal cabling (except COM3/COM4)
- Remote Management** Built-in Advantech DiagAnywhere agent on WES2009 / WES7

System Hardware

- CPU** UNO-2174G: Intel Celeron 847E 1.1GHz
UNO-2174GL: Intel Celeron 807UE 1.0GHz
UNO-2184G: Intel Core i7-3555LE 2.5GHz/i7-2655LE 2.2GHz
- Memory** UNO-2174G/GL: 4 GB DDR3 SDRAM built-in
UNO-2184G: 4 GB/8 GB DDR3 SDRAM built-in
- Indicators** LEDs for Power, battery, LAN (Active, Status) and Serial (Tx, Rx)
- Keyboard/Mouse** 1 x PS/2
- PC/104 Slot** PCI-104 slot, supports +5 & 3.3V power
- Storage** CF: 1 x CFast slot
HDD: One built-in 2.5" SATA HDD bracket (Optional 2 x HDD Bracket Kit)
- Display** 1 x DVI-I, 1 x HDMI, 1 x DP (2 x independent displays)
- Audio** Mic in, Line in, Line out
- Watchdog Timer** Programmable 256 levels timer interval, from 1 to 255 sec
- Mini PCIe Expansion** 2 x Mini PCIe slots with 1 x SIM card

Daughterboard (Additional purchase required)

- Expansion Slot** PCI-104 support (+5 & 3.3V power)

I/O Interfaces

- Serial Ports** 2 x RS-232, 2 x RS-232/422/485 with DB9 connectors; automatic RS-485 data flow control
- Serial Port Speed** RS-232: 50 ~ 115.2 kbps
RS-422/485: 50 ~ 115.2 kbps (Max.)
- LAN** 4 x 10/100/1000Base-T RJ-45 ports
Supports AMT (UNO-2184G only), wake on LAN and built-in boot ROM in flash BIOS
- USB Ports** 6 x USB (only UNO-2184G-D64E supports 2 x USB3.0)

Environment

- Humidity** 95% @ 40°C (non-condensing)
- Operating Temperature** UNO-2174/2184
UNO-2184GX (TBC)
-10 ~ 60°C (14 ~ 140°F) @ 5 ~ 85% RH. (with air flow)
-40 ~ 60°C (-40 ~ 140°F) @ 5 ~ 85% RH. (with air flow)
- Storage Temperature** -40 ~ 60°C (-40~140°F)
- Shock Protection** IEC 60068-2-27
CompactFlash: 50 G @ wall mount, half sine, 11 ms
HDD: 20 G @ wall mount, half sine, 11 ms
- Vibration Protection** IEC 60068-2-64 (Random 1 Oct./min, 1hr/axis.)
CompactFlash: 2 Grms @ 5 ~ 500 Hz,
HDD: 1 Grms @ 5 ~ 500 Hz

Ordering Information

- UNO-2184G-D44E** Intel Core i7-2655LE 2.2 GHz, 4 GB RAM Automation Computer
- UNO-2184G-D45E** Intel Core i7-2655LE 2.2 GHz, 8 GB RAM Automation Computer
- UNO-2184G-D64E** Intel Core i7-3555LE 2.5GHz, 4 GB RAM Automation Computer
- UNO-2174G-C54E** Intel Celeron 847 1.1 GHz, 4 GB RAM Automation Computer
- UNO-2174GL-C44E** Intel Celeron 807UE 1.0 GHz, 4 GB RAM Automation Computer

Accessories

- UNO-2000G-VMKAE** UNO & FPM integration VESA Mount kit
- 1750006043** Wi-Fi cable 15CM
- 1750002842** Antenna for Wi-Fi
- PCLS-DIAGAW10** Advantech Remote Monitoring & Diagnosis Utility
- UNO-PCM24-AE** 2 x PCI-104 expansion board
- 9656EWMG00E** Half size to full size Mini PCIe bracket
- UNO-2184HD-AE** 2 x HDD Bracket accessory kit for UNO-2184G/2174G

UNO-2170

Intel® Celeron® M Automation Computer with 2 x LAN, 4 x COM, PC/104



Features

- Onboard Celeron® M 600 MHz or Celeron M 1.0 GHz
- Onboard 512 KB battery-backup SRAM
- Two RS-232 and two RS-232/422/485 ports with automatic flow control
- Two 10/100Base-T RJ-45 ports
- Two USB and one type I/II PC card
- PC/104 expansion slots
- Windows® CE 5.0 & 6.0, Windows XP Embedded, and Linux ready solution
- Onboard system status LED indicators
- Supports Boot from LAN function
- Fanless design with no internal cabling
- Isolation between chassis and power ground

Introduction

The UNO-2170 is an Automation Computer that supports PC/104 expansion, serial communication ports and several other networking interfaces. UNO-2170 supports Windows XP Embedded OS and Windows CE 5.0 & 6.0, which offers a pre-configured image with optimized onboard device drivers. Windows XP Embedded delivers the power of the Windows operating system in componentized form. You can seamlessly integrate your applications into Windows XP Embedded and speed up your system development with an application ready platform that can provide a rich networking interface to fulfill diverse requirements.

Specifications

General

- **Certification** CE, FCC class A, UL, CCC
- **Dimensions (W x D x H)** 255 x 152 x 50 mm (10" x 6.0" x 2.0")
- **Enclosure** Aluminum
- **Mounting** Wallmount
- **Industrial Grounding** Isolation between chassis and power ground
- **Power Consumption** 24 W (Typical)
- **Power Requirements** 9 ~ 36 V_{DC} (e.g +24 V @ 2 A) (Min. 48 W), AT
- **Weight** 1.6 kg
- **OS Support** WES Windows XP Embedded, Windows 2000/XP, Windows CE 5.0 & 6.0, Linux, QNX
- **System Design** Fanless with no internal cabling
- **Remote Management** Built-in Advantech DiagAnywhere agent on Windows CE / XPe

System Hardware

- **CPU** Celeron M 600 MHz, Celeron M 1.0 GHz
- **Memory** 256 MB/512 MB DDR SDRAM built-in
- **Battery Backup SRAM** 512 KB
- **Indicators** LEDs for Power, IDE, Alarm for battery backup SRAM, LAN (Active, Status) and Serial (Tx, Rx)
- **Keyboard/Mouse** 1 x PS/2
- **PC Card** 1 x PC Card slot, supports CardBus (Card-32) Card and 16-bit (PCMCIA 2.1/JEIDA4.2) card Supports +5, +3.3 and +12 V @ 120 mA working power
- **PC/104 Slot** 2 x PC/104 slots (optional). Supports +5 V power
- **Printer Port** 1 x printer port
- **Storage** SSD: 1 x internal type I/II CompactFlash® slot
HDD: Built-in one 2.5" SATA HDD bracket
- **Display** DB15 VGA connector, 1600 x 1200 @ 85 Hz

- **Watchdog Timer** Programmable 256 levels timer interval, from 1 to 255 sec

I/O Interface

- **Serial Ports** 2 x RS-232, 2 x RS-232/422/485 with DB9 connectors Automatic RS-485 data flow control
- **Serial Port Speed** RS-232: 50 ~ 115.2 kbps
RS-422/485: 50 ~ 921.6 kbps (Max.)
- **LAN** 2 x 10/100 Base-T RJ-45 ports (Built-in boot ROM in flash BIOS)
- **USB Ports** 2 x USB, EHCI, Rev. 2.0 compliant

Environment

- **Humidity** 95% @ 40°C (non-condensing)
- **Operating Temperature** (IEC 60068-2-2, 100% CPU/ I/O loading) -20 ~ 50°C (-4 ~ 122°F) @ 5 ~ 85% RH.
- **Shock Protection** IEC 68 2-27
CompactFlash: 50 G @ wall mount, half sine, 11 ms
HDD: 20 G @ wall mount, half sine, 11 ms
- **Vibration Protection** IEC 68 2-64 (Random 1 Oct./min, 1hr/axis.)
CompactFlash: 2 Grms @ 5 ~ 500 Hz,
HDD: 0.5 Grms @ 5 ~ 500 Hz

Ordering Information

- **UNO-2170-C00BE** Celeron M 600 MHz Automation Computer
- **UNO-2170-C11BE** Celeron M 1 GHz Automation Computer

Accessories

- **UNO-PCM21-AE** 2 x PC/104 expansion kit for UNO-2170
- **UNO-FPM21-AE** UNO-2000 series VESA mount kit
- **PCLS-DIAGAW10** Advantech Remote Monitoring & Diagnosis Utility

UNO-2172/2182

Intel® Core™ 2 Duo/ Pentium® M/
Celeron® M Automation Computers
with 2 x GbE, 4 x COM, DVI



UNO-2172

UNO-2182



Features

- Onboard Intel Core 2 Duo 1.5 GHz (L7400)/ Pentium M 1.6 GHz/ Celeron M 1.5 GHz processors
- Onboard 512 KB battery-backup SRAM
- 2 x RS-232 and 2 x RS-232/422/485 ports with automatic flow control
- 2 x 10/100/1000 Base-T Ethernet
- DVI-I supports dual display
- Audio with Mic in, Line in, Line out
- 2 x USB 2.0 ports
- PCI-104 expansion
- Windows® WES 2009, WES 7 ready solution
- Supports one SATA HDD and one external eSATA devices
- Onboard system status LED indicators
- Supports wake on LAN and boot from LAN function
- Fanless design with no internal cabling
- Isolation between chassis and power ground

Introduction

UNO-2172 and UNO-2182 are high-performance Pentium M/ Core 2 Duo grade controllers that support PCI-104 expansion, serial communication ports and several other networking interfaces. They support Windows WES2009 OS, which offers a pre-configured image with optimized onboard device drivers. Windows WES2009 delivers the power of the Windows operating system in componentized form. You can seamlessly integrate your applications into Windows WES2009 and speed up your system development with application-ready platforms that provide rich networking interfaces to fulfill diverse requirements.

Specifications

General

- Certifications** CE, FCC Class A, UL, CCC
- Dimensions (W x D x H)** 255 x 152 x 69 mm (10" x 6.0" x 2.7")
- Enclosure** Aluminum
- Mounting** DIN-rail, Wallmount, VESA
- Industrial Grounding** Isolation between chassis and power ground
- Power Consumption** UNO-2182: 35W (Typical)
UNO-2172: 45W (Typical)
- Power Requirements** 9 ~ 36 V_{DC} (e.g. +24V @ 2A) (Min. 48W), ATX
- Weight** 3.0 kg
- OS Support** Windows 2000/XP, WES7, WES-2009, XPe, CE 5.0 & 6.0, Linux, QNX
- System Design** Fanless with no internal cabling
- Remote Management** Built-in Advantech DiagAnywhere agent on Windows CE / WES2009 / WES7

System Hardware

- CPU** UNO-2182: Core 2 Duo L7400 1.5GHz
UNO-2172: Pentium M 1.6GHz, Celeron M 1.5GHz
- Memory** UNO-2182: 2GB DDR2 SDRAM built-in
UNO-2172: 1GB DDR2 SDRAM built-in
- Indicators** LEDs for Power, IDE, Alarm for battery backup SRAM, LAN (Active, Status) and Serial (Tx, Rx)
- Battery Backup SRAM** 512 KB
- Keyboard/Mouse** 1 x PS/2
- PC/104 Slot** PCI-104 slot, supports +5 & 3.3V power
- Storage** CF: 1 x external type I/II CompactFlash® slot
HDD: Build-in one 2.5" SATA/IDE HDD bracket
- Display** DVI-I supports DVI and VGA for dual display
- Audio** Mic in, Line in, Line out
- SATA** 1 x internal, 1 x external SATA 1.0
- Watchdog Timer** Programmable 256 levels timer interval, from 1 to 255 sec

I/O Interface

- Serial Ports** 2 x RS-232, 2 x RS-232/422/485 with DB9 connectors
Automatic RS-485 data flow control
- Serial Port Speed** RS-232: 50 ~ 115.2 kbps
RS-422/485: 50 ~ 921.6 kbps (Max.)
- LAN** 2 x 10/100/1000 Base-T RJ45 ports (supports wake on LAN and built-in boot ROM in flash BIOS)
- USB Ports** 2 x USB, EHCI, Rev. 2.0 compliant

Environment

- Humidity** 95% @ 40° C (non-condensing)
- Operating Temperature** IEC 60068-2-2, 100% CPU/ I/O loading
UNO-2182: -10 ~ 60°C (14 ~ 140°F) @ 5 ~ 85% RH.
UNO-2172: -20 ~ 50°C (-4 ~ 122°F) @ 5 ~ 85% RH.
- Shock Protection** IEC 60068-2-27
CompactFlash: 50 G @ wall mount, half sine, 11 ms
HDD: 20 G @ wall mount, half sine, 11 ms
- Vibration Protection** IEC 60068-2-64 (Random 1 Oct./min, 1hr/axis.)
CompactFlash: 2 Grms @ 5 ~ 500 Hz,
HDD: 1 Grms @ 5 ~ 500 Hz

Ordering Information

- UNO-2172-C22BE** Celeron M 1.5 GHz, 1GB RAM Automation Computer
- UNO-2172-P22BE** Pentium M 1.6 GHz, 1GB RAM Automation Computer
- UNO-2182-D13BE** Core 2 Duo 1.5GHz, 2GB RAM Automation Computer

Accessories

- UNO-PCM22-AE** 2 x PC/104 expansion kit for UNO-2100 series
- UNO-FPM21-AE** UNO-2000 series VESA mount kit
- PCLS-DIAGAW10** Advantech Remote Monitoring & Diagnosis Utility

UNO-2173A/AF

Intel® Atom™ N270 Automation
Computers with 2 x LAN,
3 x COM, Mini PCIe



Features

- Onboard Intel Atom N270 1.6 GHz processor
- 2 x 10/100/1000Base-T RJ-45 port
- 4 x USB 2.0 ports
- Windows® CE 5.0 & 6.0, Windows WES2009, WES7, and Linux ready solution
- Onboard system status LED indicators
- Front-accessible CF slot
- Supports Boot from LAN function
- 1 x Mini PCIe slot for WLAN card
- Fanless design with no internal cabling
- Isolation between chassis and power ground
- Supports wide operating temperatures from -20 ~ 70°C
- IP40 ingress protection
- Windows 7 and Moblin supported

Introduction

The UNO-2173A/AF are Embedded Automation Computers equipped with Intel Atom N270 1.6 GHz CPUs, Gigabit Ethernet ports, rich I/O, and 1 x Mini PCIe socket. They also feature WLAN, 3G expansion and compatibility with Windows 7. Both products have Energy Star certification, IP40 anti-dust ingress protection and wide operating temperatures (-20 ~ 70°C), providing high performance and high versatility with low power consumption. The UNO-2173A/AF are economic new computing platforms for manufacturing executing systems, facility automation, in-vehicle, and industrial thin client applications.

Specifications

General

- **Certification** Energy Star, CE, FCC class A, UL, CCC
- **Dimensions (W x D x H)** 255 x 152 x 59 mm (10" x 6.0" x 2.3")
- **Enclosure** Aluminum +SECC
- **Mounting** DIN-rail, Wallmount, VESA
- **Industrial Grounding** Isolation between chassis and power ground
- **Power Consumption** 15 W (Typical)
- **Power Requirements** 9 ~ 36 V_{DC} (e.g +24 V @ 1.5 A) (Min. 36 W), ATX
- **Weight** 2.5 kg
- **OS Support** Windows WES 2009, Windows XP, Windows 7, Windows CE 5.0 & 6.0, Linux, QNX, WES7
- **System Design** Fanless design with no internal cabling
- **Remote Management** Built-in Advantech DiagAnywhere agent on Windows CE / WES 2009 / WES 7

System Hardware

- **CPU** Intel Atom N270 1.6 GHz
- **Memory** 1 GB, 2 GB DDR2 SDRAM built-in
- **Indicators** LEDs for Power, CF, LAN (Active, Status), Serial (Tx, Rx)
- **Keyboard/Mouse** 1 x PS/2
- **Storage** CF: 1 x front-accessible type I/II CompactFlash® slot
HDD: 1 x built-in 2.5" SATA HDD/SSD bracket
DB15 VGA connector, 1600 x 1200 @ 85 Hz
LVDS with backlight control (UNO-2173AF)
- **Display** Programmable 256 levels timer interval, from 1 to 255 sec
- **Watchdog Timer** 1 x Mini PCIe
- **Expansion Slot** 1 x Mini PCIe

I/O Interface

- **Serial Ports** UNO-2173A: 2 x RS-232
UNO-2173AF: 2 x RS-232, 1 x RS-422/485
- **Serial Port Speed** 50 ~ 115.2 kbps
- **LAN** 2 x 10/100/1000Base-T RJ-45 ports (Built-in boot ROM in flash BIOS) (One LAN port in UNO-2173A)
- **USB Ports** 4 x USB 2.0 (2 ports on UNO-2173A)
- **Audio** 5.1 channel HD audio (Only for UNO-2173AF)

Environment

- **Humidity** 95% @ 40°C (non-condensing)
- **Operating Temperature** IEC 60068-2-2 with 100% CPU/ I/O loading
-20 ~ 70°C (-4 ~ 158°F)
- **Ingress Protection** IP40
- **Shock Protection** IEC 60068-2-27
CompactFlash: 50 G @ wall mount, half sine, 11 ms
HDD: 20 G @ wall mount, half sine, 11 ms
- **Vibration Protection** IEC 60068-2-64 (Random 1 Oct./min, 1hr/axis.)
CompactFlash: 5 Grms @ 5 ~ 500 Hz,
HDD: 1 Grms @ 5 ~ 500 Hz

Reserved Functions

- **Battery Backup SRAM*** 1 MB
- **Printer Port*** 1 x printer port pin head
- **USB*** 1 x internal pin head

*Note: This function is optional for project request

Ordering Information

- **UNO-2173A-A12E** Intel Atom N270 1.6 GHz, 1 GB RAM Computer w/ front I/O
- **UNO-2173A-A13E** Intel Atom N270 1.6 GHz, 2 GB RAM Computer w/ front I/O
- **UNO-2173AF-A12E** Intel Atom N270 1.6 GHz, 1 GB RAM Computer
- **UNO-2173AF-A13E** Intel Atom N270 1.6 GHz, 2 GB RAM Computer

Accessories

- **UNO-FPM21-AE** UNO-2000 series VESA mount kit
- **EWM-W138H01E** Mini PCIe card for WLAN
- **1960032715N040** Rear panel of UNO-2173A for Antenna
- **1960032715N020** Rear panel of UNO-2173AF for Antenna
- **1750006043** SMA/I-PEX cable 15CM
- **1750002842** Wireless Antenna
- **PCLS-DIAGAW10** Advantech Remote Monitoring & Diagnosis Utility

UNO-2174A/2178A

Intel® Atom™ N450/ D510
Automation Computers
with 6 x USB, 8 x COM,
2 x Mini PCIe



Features

- Onboard Intel Atom N450/D510 processors
- 2 x 10/100/1000Base-T RJ-45 ports, 6 x USB 2.0 ports
- Windows® CE 6.0, WES 2009, WES 7 and Advantech Linux ready solution
- Onboard system status LED indicators
- Front-accessible CF slot
- Supports Boot from LAN function
- 2 x Mini PCIe slots with 1 x SIM slot support
- Fanless design with no internal cabling
- Isolation between chassis and power ground
- Supports wide operating temperatures from -10 ~ 70°C
- IP40 ingress protection
- Windows 7 32 bit supported
- Supports plug-in cards (1 x PCI-104 and 1 x PC/104+) with additional daughterboard expansion
- Supports 8 x COM ports (UNO-2178A)
- Supports arbitrary baud rates

Introduction

The UNO-2174A and UNO-2178A are Embedded Automation Computers equipped with Intel Atom N450/D510 CPUs, Gigabit Ethernet ports, rich I/O, and 2 x Mini PCIe socket. They also feature WLAN, 3G expansion and compatibility with Windows 7. Both products have Energy Star certification, IP40 anti-dust ingress protection and wide operating temperatures (-10 ~ 70°C), providing high performance and high versatility with low power consumption. The UNO-2174A and UNO-2178A are economic new computing platforms for manufacturing executing systems, facility automation, and industrial thin client applications. With an additional daughterboard, the UNO-2174A and UNO-2178A support 1 x PC/104+ and 1 x PCI-104 plug-in cards for further expansion.

Specifications

General

- Certification** Energy Star, CE, FCC Class A, UL, CCC, C-Tick Class A, BSMI
- Dimensions (W x D x H)** UNO-2174A-A23E: 255 x 152 x 50 mm (10" x 6.0" x 2.0")
UNO-2174A-A33E: 255 x 152 x 59 mm (10" x 6.0" x 2.3")
UNO-2178A: 255 x 152 x 59 mm (10" x 6.0" x 2.3")
- Enclosure** Aluminum +SECC
- Mounting** DIN-rail, Wallmount, VESA
- Industrial Grounding** Isolation between chassis and power ground
- Power Consumption** UNO-2174A: 12 W (Typical)
UNO-2178A: 16 W (Typical)
- Power Requirements** 9 ~ 36 V_{DC} (e.g. +24 V @ 1.5 A) (Min. 36 W), ATX
- Power Suspend Mode** S3, S4
- Weight** 2.5 kg
- OS Support** Windows XP/7, WES7, WES-2009, CE 6.0, Advantech Linux, QNX
- System Design** Fanless design with no internal cabling
- Remote Management** Built-in Advantech DiagAnywhere agent on Windows CE, WES2009, WES7

System Hardware

- CPU** UNO-2178A: Intel Atom D510 Dual Core 1.66 GHz
UNO-2174A: Intel Atom N450 1.6 GHz /D510 1.66GHz
- Memory** 2 GB DDR2 SDRAM built-in
- Indicators** LEDs for Power, CF, LAN (Active, Status), Serial (Tx, Rx)
- Keyboard/Mouse** 1 x PS/2
- Storage** CF: 1 x rear type I/II CompactFlash® slot
HDD: 1 x built-in 2.5" SATA HDD/SSD bracket (Not available when PCI-104 expansion is being used)
- Display** DB15 VGA connector, UNO-2174A supports up to 1400 x 1050, UNO-2178A supports up to 2048 x 1536
- Watchdog Timer** Programmable 256 levels timer interval, from 1 to 255 sec
- Expansion** 2 x Mini PCIe
1 x SIM card slot
- Printer Port** 1 x Printer port (UNO-2174A)

Daughterboard (Additional purchase required)

- Expansion Slot** PC/104+ and PCI-104 support (+5 & 3.3V power) (HDD slot is not available when PCI-104 slot is being used)
2 x Mini PCIe card slots and 1 x SIM card slot

I/O Interface

- Serial Ports** UNO-2174A: 2 x RS-232/485 (COM1-2),
2 x RS-232/422/485 w/ 128kB FIFO (COM A-B)
UNO-2178A: 2 x RS-232/485 (COM1-2),
2 x RS-232/422/485 w/ 128kB FIFO (COM A-B),
4 x RS-232/485 from DB25 connector (COM3-6)
- Serial Port Speed** 50-115.2 kbps (COM 1-6 in RS-232/485 mode)
50-115.2 kbps (COM A/B in RS-232 mode, 921.6kbps peak performance)
50-921.6 kbps (COM A/B in RS-422/485 mode)
- LAN** 2 x 10/100/1000Base-T RJ-45 ports (Built-in boot ROM in flash BIOS)
- USB Ports** 6 x USB 2.0
- Audio** Line in, Line out, Mic in (5.1 channel HD audio)

Environment

- Humidity** 95% @ 40°C (non-condensing)
- Operating Temperature** IEC 60068-2-2 with 100% CPU/I/O loading
-10 ~ 70°C (14 ~ 158°F)
- Ingress Protection** IP40
- Shock Protection** IEC 60068-2-27
CompactFlash: 50 G @ wall mount, half sine, 11 ms
HDD: 20 G @ wall mount, half sine, 11 ms
- Vibration Protection** IEC 60068-2-64 (Random 1 Oct./min, 1hr/axis.)
CompactFlash: 2 Grms @ 5 ~ 500 Hz,
HDD: 1 Grms @ 5 ~ 500 Hz

Ordering Information

- UNO-2174A-A23E** Intel Atom N450 1.6 GHz, 2 GB RAM, 4 x COM ports Automation Computer
- UNO-2178A-A33E** Intel Atom D510 1.66 GHz, 2 GB RAM, 8 x COM ports Automation Computer
- UNO-2174A-A33E** Intel Atom D510 1.66 GHz, 2GB RAM, 4 x COM ports Automation Computer

Accessories

- UNO-FPM21-AE** UNO-2000 series VESA mount kit
- EWM-W138H01E** Mini PCIe card for WLAN
- 1750006043** Wi-Fi cable 15CM
- 1750002842** Antenna for Wi-Fi
- 9656EWMG00E** Half-size miniPCIe to miniPCIe bracket set
- PCLS-DIAGAW10** Advantech Remote Monitoring & Diagnosis Utility
- UNO-PCM23-AE** 1 x PCI-104 and 1 x PC/104+ Expansion board

UNO-2174G/GL UNO-2184G

Intel® Celeron® Automation Computers
with 4 x GbE, 2 x Mini PCIe, DVI/DP/HDMI

Intel® Core™ i7 Automation Computer
with 4 x GbE, 2 x Mini PCIe, DVI/DP/HDMI



Features

- Onboard Intel Celeron 847E 1.1GHz/807UE 1.0GHz/Core i7-2655LE 2.2GHz/i7-3555LE 2.5GHz processors
- 2 x RS-232 and 2 x RS-232/422/485 ports with automatic flow control
- 4 x 10/100/1000Base-T Ethernet
- DVI-I, DP, HDMI support 2 x independent displays
- Audio with Mic in, Line in, Line out
- 6 x USB ports
- Supports 2 x PCI-104 plug-in card with daughterboard expansion
- Windows® WES 2009, WES 7 ready solution
- External accessible CFast slot
- Onboard system status LED indicators
- Supports wake on LAN and boot from LAN function
- Supports Power eSATA
- Isolation between chassis and power ground
- IP40 ingress protection

Introduction

The UNO-2184G & 2174G/GL are high-performance Intel 3rd generation Core i7-3555LE/Intel 2nd generation core i7-2655LE/847E/807UE grade controllers that support PCI-104 with daughterboard expansion, 3 x display, 6 x USB, and 2 x Mini PCIe socket. They also feature WLAN, 3G expansion and compatibility with Windows 7. The 4 x Gigabit LANs on the UNO-2184G support teaming function with fault tolerance, link aggregation, and load balance features. The UNO-2184G & 2174G/GL are high end computing platforms designed to support applications with tremendous data volume and 3D content.

Specifications

General

- Certification** CE, UL, CCC, FCC, C-Tick, BSMI
- Dimensions (W x D x H)** 255 x 152 x 69 mm (10" x 6.0" x 2.7")
- Enclosure** Aluminum
- Mounting** DIN-rail, Wallmount, VESA
- Power Consumption** UNO-2174G/GL: 30 W/ 20 W (Typical)
UNO-2184G: 40 W (Typical)
- Power Requirements** 9 ~ 36 V_{DC} (e.g. +24V @ 3A) (Min. 72W), AT/ATX
- Weight** 3.0 kg
- OS Support** Windows XP/7, WES7, WES-2009, Linux
- System Design** Fanless with no internal cabling (except COM3/COM4)
- Remote Management** Built-in Advantech DiagAnywhere agent on WES2009 / WES7

System Hardware

- CPU** UNO-2174G: Intel Celeron 847E 1.1GHz
UNO-2174GL: Intel Celeron 807UE 1.0GHz
UNO-2184G: Intel Core i7-3555LE 2.5GHz/i7-2655LE 2.2GHz
- Memory** UNO-2174G/GL: 4 GB DDR3 SDRAM built-in
UNO-2184G: 4 GB/8 GB DDR3 SDRAM built-in
- Indicators** LEDs for Power, battery, LAN (Active, Status) and Serial (Tx, Rx)
- Keyboard/Mouse** 1 x PS/2
- PC/104 Slot** PCI-104 slot, supports +5 & 3.3V power
- Storage** CF: 1 x CFast slot
HDD: One built-in 2.5" SATA HDD bracket (Optional 2 x HDD Bracket Kit)
- Display** 1 x DVI-I, 1 x HDMI, 1 x DP (2 x independent displays)
- Audio** Mic in, Line in, Line out
- Watchdog Timer** Programmable 256 levels timer interval, from 1 to 255 sec
- Mini PCIe Expansion** 2 x Mini PCIe slots with 1 x SIM card

Daughterboard (Additional purchase required)

- Expansion Slot** PCI-104 support (+5 & 3.3V power)

I/O Interfaces

- Serial Ports** 2 x RS-232, 2 x RS-232/422/485 with DB9 connectors; automatic RS-485 data flow control
- Serial Port Speed** RS-232: 50 ~ 115.2 kbps
RS-422/485: 50 ~ 115.2 kbps (Max.)
- LAN** 4 x 10/100/1000Base-T RJ-45 ports
Supports AMT (UNO-2184G only), wake on LAN and built-in boot ROM in flash BIOS
- USB Ports** 6 x USB (only UNO-2184G-D64E supports 2 x USB3.0)

Environment

- Humidity** 95% @ 40°C (non-condensing)
- Operating Temperature** UNO-2174/2184
UNO-2184GX (TBC)
UNO-2184G
-10 ~ 60°C (14 ~ 140°F) @ 5 ~ 85% RH. (with air flow)
-40 ~ 60°C (-40 ~ 140°F) @ 5 ~ 85% RH. (with air flow)
- Storage Temperature** -40 ~ 60°C (-40~140°F)
- Shock Protection** IEC 60068-2-27
CompactFlash: 50 G @ wall mount, half sine, 11 ms
HDD: 20 G @ wall mount, half sine, 11 ms
- Vibration Protection** IEC 60068-2-64 (Random 1 Oct./min, 1hr/axis.)
CompactFlash: 2 Grms @ 5 ~ 500 Hz,
HDD: 1 Grms @ 5 ~ 500 Hz

Ordering Information

- UNO-2184G-D44E** Intel Core i7-2655LE 2.2 GHz, 4 GB RAM Automation Computer
- UNO-2184G-D45E** Intel Core i7-2655LE 2.2 GHz, 8 GB RAM Automation Computer
- UNO-2184G-D64E** Intel Core i7-3555LE 2.5GHz, 4 GB RAM Automation Computer
- UNO-2174G-C54E** Intel Celeron 847 1.1 GHz, 4 GB RAM Automation Computer
- UNO-2174GL-C44E** Intel Celeron 807UE 1.0 GHz, 4 GB RAM Automation Computer

Accessories

- UNO-2000G-VMKAE** UNO & FPM integration VESA Mount kit
- 1750006043** Wi-Fi cable 15CM
- 1750002842** Antenna for Wi-Fi
- PCLS-DIAGAW10** Advantech Remote Monitoring & Diagnosis Utility
- UNO-PCM24-AE** 2 x PCI-104 expansion board
- 9656EWMG00E** Half size to full size Mini PCIe bracket
- UNO-2184HD-AE** 2 x HDD Bracket accessory kit for UNO-2184G/2174G

UNO-2050G

AMD Geode™ LX Automation Computer
with 2 x LAN, 4 x COM, 8 x DI, 8 x DO



Features

- Onboard AMD Geode LX800 500MHz CPU
- Two RS-232 and two isolated RS-232/422/485 with automatic flow control
- Two 10/100 Base-T RJ-45 ports
- 8-ch Isolated DI and 8-ch Isolated DO with counter and timer
- Windows® CE 5.0 & 6.0, Windows XP Embedded SP2, and Linux ready solution
- Fanless design with no internal cabling
- Isolation between chassis and power ground

Introduction

UNO-2050G is an X86-grade platform with dual LAN and 16-channel isolated digital I/O and timer/counter. In addition, it also provides two RS-232 and two isolated RS-232/422/485 communication ports with RS-485 automatic flow control functionality. Therefore, the UNO-2050G is an ideal solution for embedded controllers.

UNO-2050G is available with a pre-configured Windows CE image with optimized onboard device drivers. Microsoft Windows CE is a compact, highly efficient, real-time operating system designed for embedded systems without mechanical HDD limitations. To expand storage capability, the UNO-2050G allows the addition of an external 2.5" HDD using Advantech's HDD expansion kit. It can be used for large data backup requirements and popular OS installations such as Microsoft Windows and Linux OS. Significant anti-vibration (1G w/HDD) is maintained even with the mechanical HDD inside. UNO-2050G is the perfect embedded application ready platform that can shorten development time and offer a rich networking interface to fulfill diverse application requirements.

Specifications

General

- **Certifications** CE, FCC class A, UL, CCC
- **Dimensions (W x D x H)** 188.8 x 106.5 x 35.5 mm (7.5" x 4.2" x 1.4")
- **Enclosure** Aluminum
- **Mounting** Wallmount, DIN-rail
- **Industrial Groundin** Isolation between chassis and power ground
- **Power Consumption** 15 W (Typical)
- **Power Requirements** 9 ~ 36 V_{DC} (e.g. +24 V @ 1 A) (Min. 24 W), AT
- **Weight** 0.8 kg
- **OS Support** WES Windows XP Embedded, Windows 2000 & XP, Windows CE 5.0 & 6.0, Linux, QNX
- **System Design** Fanless design with no internal cabling
- **Remote Management** Built-in Advantech DiagAnywhere agent on Windows CE / XPe

System Hardware

- **CPU** AMD Geode LX800 500MHz
- **Memory** Onboard 256 MB DDR SDRAM
- **Indicators** LEDs for Power, IDE, Diagnosis (programmable) and LAN (Active, Status)
Buzzer for Diagnosis (programmable)
- **Keyboard/Mouse** 1 x PS/2
- **Storage** SSD: 1 x internal type I/II CompactFlash® slot
HDD: expansion kit for 2.5" IDE HDD (Optional)
- **Display** DB15 VGA connector, 1024 x 768 @ 60 Hz
- **Watchdog Timer** Programmable 256 levels timer interval, from 1 to 255 sec

I/O Interface

- **Counter/Timer** 2 x 16-bit: counter source: DI6 & DI7, Pulse output: DO6 & DO7. Can be cascaded as one 32-bit counter/timer; Down counting, preset counting value, interrupt handling, Timer time base: 100/10/1 kHz, 100 Hz
- **Digital Inputs** 8 ch. wet contact 2,000 V_{DC} isolation, 2,000 V_{DC} ESD protection, 70 V_{DC} over-voltage protection
0 ~ 50 V_{DC} input range and 10 kHz speed; Interrupt handling

- **Digital Outputs** 8 ch. 2,000 V_{DC} isolation and 200 mA max/channel sink current. Keeps output status after system hot reset.
5 ~ 40 V_{DC} output range and 10 kHz speed
- **LAN** 2 x 10/100Base-T with RJ-45 port
- **Serial Ports** 2 x standard RS-232 (COM1/COM2)
2 x isolated RS-232/422/485 (COM3/COM4)
Automatic RS-485 data flow control
RS-232/422/485 (COM3/COM4) with 2000 V_{DC} EFT protection & 2000 V_{DC} isolation
RS-232: 50 ~ 115.2 kbps (COM1/COM2)
50 ~ 230.4 kbps (COM3/COM4)
RS-422/485: 50 ~ 921.6 kbps (Max.)
- **Serial Port Speed**

Environment

- **Humidity** 95% @ 40° C (non-condensing)
- **Operating Temperature** (IEC 60068-2-2, 100% CPU/I/O loading)
-10 ~ 55° (14 ~ 131° F)
- **Shock Protection** IEC 68 2-27
CompactFlash: 20 G @ DIN, half sine, 11 ms.
50 G @ Wall/Panel, half sine, 11 ms
- **Vibration Protection** IEC 68 2-6
CompactFlash: 2 Grms @ sine, 5 ~ 500 Hz
1 Oct./min, 1hr/axis.
HDD: 1 Grms @ sine, 12 ~ 300 Hz, 1 Oct./min, 1hr/axis.

Ordering Information

- **UNO-2050G-G30E** LX800 500MHz, 256 MB RAM Automation Computer

Accessories

- **UNO-HD20-AE** UNO-2000 HDD expansion kit
- **UNO-FPM21-AE** UNO-2000 series VESA mount kit
- **PCLS-DIAGAW10** Advantech Remote Monitoring & Diagnosis Utility

UNO-2059GL

AMD Geode™ LX Automation Computer with 4 x COM, LAN



Features

- Onboard AMD Geode GX533 LX800 500MHz CPU
- 2 x RS-232/485, 2 x RS-232/422/485 with automatic flow control
- 1 x 10/100Base-T RJ-45 port and 2 x USB 2.0 ports
- One programmable diagnostic LED and buzzer
- Windows® CE 5.0 & 6.0, Windows XP Embedded SP2, and Linux ready solution
- Fanless design with no internal cabling
- Isolation between chassis and power ground

Introduction

Advantech's UNO-2059GL is an X86-grade platform that offers USB interfaces to fulfill I/O device expansion needs. In addition, it also offers two RS-232/485 and two RS-232/422/485 communication ports with automatic flow control functionality. The UNO-2059GL is an ideal compact solution for large computing and communication requirements.

The UNO-2059GL is available with a pre-configured Windows CE image with optimized onboard device drivers. Microsoft Windows CE is a compact, highly efficient, real-time operating system designed for embedded systems without mechanical HDD limitations. To expand storage capability, the UNO-2059GL allows the addition of an external 2.5" HDD using Advantech's HDD expansion kit. It can be used for large data backup requirements and popular OS installations such as Microsoft Windows and Linux OS. Significant anti-vibration (1G w/HDD) is maintained even with the mechanical HDD inside.

Specifications

General

- **Certification** CE, FCC class A
- **Dimensions (W x D x H)** 188.8 x 106.5 x 35.5 mm (7.5" x 4.2" x 1.4")
- **Enclosure** Aluminum
- **Mounting** Wallmount, DIN-rail
- **Industrial Grounding** Isolation between chassis and power ground
- **Power Consumption** 15 W (typical)
- **Power Requirements** 10 – 48 V_{DC} (e.g. +24 V @ 1 A) (Min. 24 W), AT
- **Weight** 0.8 kg
- **OS Support** WES Windows XP Embedded, Windows 2000 & XP, Windows CE 5.0 & 6.0, Linux, QNX
- **System Design** Fanless with no internal cabling
- **Remote Management** Built-in Advantech DiagAnywhere agent on Windows CE / XPe

System Hardware

- **CPU** AMD Geode LX800 500MHz
- **Memory** Onboard 256 MB DDR SDRAM
- **Indicators** LEDs for power, IDE, diagnosis (programmable) and LAN (Active, Status)
Buzzer for diagnosis (programmable)
- **Keyboard/Mouse** 1 x PS/2
- **Storage** SSD: 1 x internal type I/II CompactFlash® slot
HDD: expansion kit for 2.5" IDE HDD (Option)
- **Display** DB15 VGA connector, 1024 x 768 @ 60 Hz
- **Watchdog Timer** Programmable 256 levels timer interval, from 1 to 255 sec

I/O Interface

- **Serial Ports** 2 x RS-232/485, 2 x RS-232/422/485
– Automatic RS-485 data flow control
– RS-422/485 surge protection up to 2,000 V_{DC}
- **Serial Port Speed** RS-232: 50 – 230.4 kbps;
RS-422/485: 50 – 921.6 kbps (Max.)
- **USB Ports** 2 x USB ports, EHCI, Rev. 2.0 compliant
- **LAN** 1 x 10/100Base-T RJ-45 port

Environment

- **Humidity** 95 % @ 40°C (non-condensing)
- **Ingress Protection** IP40
- **Operating Temperature** (IEC 60068-2-2, 100% CPU/ I/O loading)
–10 – 55°C (14 – 131°F)
- **Shock Protection** IEC 68 2-27
CompactFlash®: 20 G @ DIN, half sine, 11 ms.
50 G @ Wall/Panel, half sine, 11 ms
- **Vibration Protection** IEC 68 2-6
CompactFlash®: 2 Grms @ sine, 5 – 500 Hz,
1 Oct./min, 1hr/axis.
HDD: 1 Grms @ sine, 12 – 300 Hz, 1 Oct./min,
1 hr/axis.

Ordering Information

- **UNO-2059GL-G30E** LX800 500MHz, 256 MB RAM Automation Computer

Accessories

- **UNO-HD20-AE** UNO-200 HDD expansion kit
- **UNO-FPM21-AE** UNO-2000 series VESA mount kit
- **PCLS-DIAGAW10** Advantech Remote Monitoring & Diagnosis Utility

UNO-2053GL

AMD Geode™ LX Automation Computer
with 2 x LAN, 2 x COM, Audio



Features

- Onboard AMD Geode LX800 500MHz CPU
- Two standard RS-232 and one DB-15 VGA connector
- Two 10/100Base-T RJ-45 ports and two USB 2.0 ports
- Audio with Mic in, Line in, Line out
- Windows® CE 5.0 & 6.0, Windows XP Embedded SP2, and Linux ready solution
- Fanless design with no internal cabling
- Isolation between chassis and power ground

Introduction

UNO-2053GL is a X86-grade platform that offers dual LAN and dual USB interfaces to fulfill user's diverse communication needs. In addition, it also offers two RS-232 communication ports on board. Therefore, UNO-2053GL is an ideal solution for data gateway applications. UNO-2053GL is available with a pre-configured Windows CE image with optimized onboard device drivers. Microsoft Windows CE is a compact, highly efficient, real-time operating system designed for embedded systems without mechanical HDD limitations. To expand storage capability, the UNO-2053GL allows the addition of an external 2.5" HDD using Advantech's UNO HDD expansion kit. It can be used for large data backup requirements and popular OS installations such as Microsoft Windows and Linux OS. Significant anti-vibration is maintained even with the mechanical HDD inside. (1 G)

UNO-2053GL is a perfect embedded application-ready platform that can shorten your development time and offer a rich networking interface to fulfill diverse requirements.

Specifications

General

- **Certifications** CE, FCC class A, UL, CCC
- **Dimensions (W x D x H)** 188.8 x 106.5 x 35.5 mm (7.5" x 4.2" x 1.4")
- **Enclosure** Aluminum
- **Mounting** Wallmount, DIN-rail
- **Industrial Grounding** Isolation between chassis and power ground
- **Power Consumption** 15 W (Typical)
- **Power Requirements** 9 ~ 36 V_{DC} (e.g. +24 V @ 1 A) (Min. 24 W), AT
- **Weight** 0.8 kg
- **OS Support** WES Windows XP Embedded, Windows 2000 & XP, Windows CE 5.0 & 6.0, Linux
- **System Design** Fanless with no internal cabling
- **Remote Management** Built-in Advantech DiagAnywhere agent on Windows CE / XPe

System Hardware

- **CPU** LX800 500MHz
- **Memory** Onboard 256 MB DDR SDRAM
- **Indicators** LEDs for power, IDE and LAN (Active, Status)
- **Keyboard/Mouse** 1 x PS/2
- **Storage** SSD: 1 x internal type I/II CompactFlash® slot
HDD: expansion kit for 2.5" IDE HDD (Option)
- **Display** DB15 VGA connector, 1024 x 768 @ 60 Hz
- **Audio** Mic in, Line in, Line out
- **Watchdog Timer** Programmable 256 levels timer interval, from 1 to 255 sec

I/O Interface

- **LAN** 2 x 10/100Base-T RJ-45 ports
- **Serial Ports** 2 x standard RS-232
- **Serial Port Speed** RS-232: 50 ~ 115.2 kbps
- **USB Ports** 2 x USB ports, EHCI. Rev. 2.0 compliant

Environment

- **Humidity** 95 % @ 40°C (non-condensing)
- **Ingress Protection** IP40
- **Operating Temperature** (IEC 60068-2-2, 100% CPU/ I/O loading)
-10 ~ 55° C (14 ~ 131° F)
- **Shock Protection** IEC 68 2-27
CompactFlash®: 20 G @ DIN, half sine, 11 ms.
50 G @ Wall/Panel, half sine, 11 ms
- **Vibration Protection** IEC 68 2-6
CompactFlash: 2 Grms @ sine, 5 ~ 500 Hz,
10 ct./min, 1hr/axis
HDD: 1 Grms @ sine, 12 ~ 300 Hz, 10 ct./min, 1hr/axis

Ordering Information

- **UNO-2053GL-G30E** LX800 500MHz, 256 MB RAM Automation Computer

Accessories

- **UNO-HD20-AE** UNO-2000 HDD expansion kit
- **UNO-FPM21-AE** UNO-2000 series VESA mount kit
- **PCLS-DIAGAW10** Advantech Remote Monitoring & Diagnosis Utility

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