UNO-3072A
UNO-3074A

Intel® Atom™ D510 Automation Computer with 2 x PCI, 2 x GbE, and FireWire

Intel® Atom™ D510 Automation Computer with 4 x PCI, 2 x GbE, and FireWire

Features

- Onboard Intel Atom D510 1.66 GHz processor
- Dual IEEE-1394 for vision inspection devices
- AT/ATX power mode by jumper selection
- Onboard 512KB Battery- backup SRAM
- 2 x RS-232/422/485 ports with automatic flow control
- 2 x 10/100/1000Base-T RJ-45 ports with teaming function support
- Up to four PCI expansions
- 4-ch isolated DI, 4-ch isolated DO
- Dual SSD/HDD with onboard RAID 0/1 support
- Fanless design with no internal cables
- Isolation between chassis and power ground
- Front-accessible I/O design
- 1 x internal USB for dongle and flash drive

Introduction

The UNO-3072A and UNO-3074A are Dual Core Atom-based Embedded Automation Computers with up to four PCI slots that provide an excellent performance to power consumption ratio. They are also equipped with two IEEE 1394b bilingual interfaces which allow users to connect their own devices for machine vision. Critical data can be saved on the battery backup SRAM. They also support two HDD bays with RAID 0/1. The design with an open platform can fulfill demanding requirements from the industrial field, especially for machine vision or motion controllers.

Specifications

General

- **Certification**: CE, FCC class A, UL, CCC
- **Dimensions (W x H x D)**: UNO-3072A: 140 x 238 x 177 mm (5.5" x 9.3" x 7.0")
UNO-3074A: 181 x 238 x 177 mm (7.5" x 9.3" x 7.0")
- **Enclosure**: Aluminum + SECC
- **Mounting**: Wallmount, Stand, Panel
- **Industrial Grounding**: Isolation between chassis and power ground
- **Power Consumption**: 25 W (Typical, no add-on card)
- **Power Requirement**: 9 ~ 36 V_{DC} (e.g +24 V @ 3A), ATX, AT/ATX power Jumper selection and BIOS AT simulation (support system reboot automatically after power recovery)
- **Weight**: UNO-3072A: 4.5 kg / UNO-3074A: 5.0 kg
- **OS Support**: WES2009, Windows Vista/XP, Windows 7, Linux, QNX
- **System Design**: Fanless with no internal cabling
- **Remote Management**: Built-in Advantech DiagAnywhere agent on Windows CE/ WES2009

System Hardware

- **CPU**: Intel Atom D510 1.66 GHz
- **Memory**: 2 GB DDRII SDRAM built-in
- **Battery Backup SRAM**: 512 KB
- **Expansion Slots**: UNO-3072A: 2 x PCI V2.2 slots
UNO-3074A: 4 x PCI V2.2 slots
- **PCI Slot Power**: 12 V @ 3 A, -12 V @ 0.8 A, +5 V @ 6 A, +3.3 V @ 6 A (total combined power consumption on the PCI slots should be less than 40W)
- **Indicators**: LEDs for Power, Standby, HDD, SRAM battery, Rx/Tx for COM ports
- **Audio**: AC 97, Line Out
- **Storage**: CF: 1 x internal type I/ II CompactFlash slot
1 x external type I/ II CompactFlash slot
HDD: Two built-in 2.5" SATA HDD brackets with support for RAID 0 and RAID 1
One external SATA 2.0 (does not support hot swap)
- **Display**: DB15 VGA connector, 1600 x 1200 @ 85 Hz
- **Watchdog Timer**: Programmable 256 level timer interval, from 1~255 sec

I/O Interface

- **LAN**: 2 x 10/100/1000Base-T RJ-45 ports (Intel 82574L, supports Wake on LAN, Teaming, built-in boot ROM, and IEEE1588 hardware support)
- **Serial Ports**: 2 x RS-232/422/485 with DB9 connectors, automatic RS-485 data flow control, 2 x RS-232 (optional)
- **Serial Speed**: RS-232 Speed: 50 bps ~ 115.2 kbps,
RS-422/485 Speed: 300 bps ~ 921.6 kbps (Max)
- **USB Ports**: 5 x USB 2.0 (one internal), 2 x USB 2.0 pin header
- **IEEE 1394 (Firewire)**: 2 x type B (Bilingual)
- **Optional I/O**: PS/2 KB/MS, 2 x COM-232, 2 x USB 2.0, LPT
- **Digital Input**: 4-ch. contact DI0 ~ DI3
Wet contact: Logic 0: -3 ~ 3 V_{DC}; Logic 1: ±10 ~ 50 V_{DC}
Dry contact: Logic 0: open; Logic 1: close to GND
isolation and ESD protect 1500 V_{DC},, 50~70 V_{DC} over voltage protection
Opto-Isolator Response: 25µs- Interrupt capable channel: DI0 ~ DI3
- **Digital Output**: 4 ch. DO0 ~ DO3
1,500 V_{DC} isolation, 200 mA max/channel sink current
Keeps output status after system hot reset
Open collector to 40V (200mA maximum sink current load) and 3 kHz speed

Timer/Counter

- **Counter Source**: DI1 & DI3
- **Pulse Output**: DO2 & DO3
- **Can be cascaded as one 32-bit counter/timer**
- **Down counting, preset counting value**
- **Timer Time Base**: 100 kHz, 10 kHz, 1 kHz, 100 Hz

Environment

- **Operating Temperature**: (IEC 60068-2-2, 100% CPU/ I/O loading)
-10 ~ 60°C (14 ~ 140°F)
- **Storage Temperature**: -20 ~ 80°C (-4 ~ 176°F)
- **Humidity**: 95% @ 40°C (non-condensing)
- **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-3072A-A33E**: Intel Atom D510 1.66 GHz, 2 GB RAM Automation Computer w/ 2 x PCI
- **UNO-3074A-A33E**: Intel Atom D510 1.66 GHz, 2 GB RAM Automation Computer w/ 4 x PCI

Accessories

- **PCLS-DIAGAW10**: Advantech Remote Monitoring & Diagnosis Utility
- **1960048293N000**: Top cover of UNO-3082 with venting hole
- **1960045707N010**: Top cover of UNO-3084 with venting hole
- **9663308401E**: USB x 2 for UNO 3000 Series
- **9663308402E**: LPT x 1 for UNO 3000 Series
- **9663308403E**: RS232 COM port x 2 and PS2 x 1 for UNO 3000 Series

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