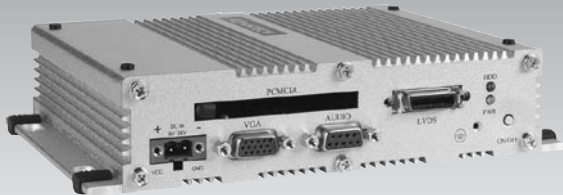


ARK-1380

Ultra Compact, Intel® ULV Celeron® M 1 GHz with PC Card Slot, 4 x USB, CRT & LVDS, 1 x LAN, 2 x COM, Fanless Embedded Computer

NEW



Features

- Built-In Intel® Ultra Low Voltage Celeron® M 1 GHz/600MHz CPU
- Two serial ports and Four USB ports
- One PC Card slot for PCMCIA or Card Bus card
- Comprehensive display, communication and connectivity
- Ultra compact size, VESA mountable, robust construction with fanless operation

Introduction

The ARK-1380 is an Ultra-Compact, Fanless Fully Sealed, robust embedded computer, designed for space critical applications which require low power consumption. All electronics are protected in a ruggedized, sealed housing. No external cooling is needed. The ARK-1380 has a 36-bit LVDS display interface, AC'97 audio, one LAN, four USB, and two serial communication ports; as well as PC Card interfaces for comprehensive multimedia, control and communication capability to fulfill diversified applications.

Ultra Compact Size, VESA Mount, with Fanless Operation

- Four VESA holes for convenient direct mounting of ARK-1380 on any display device
- Support Desktop/Wall/Din Rail Mounting under space critical installation conditions
- Smallest dimension of 188.8 x 106.5 x 35.5 mm (7.5" x 4.2" x 1.4")
- Fanless operation in an aluminum sealed construction

VESA Mount Support, Dual Independent Display Capability

36-bit LVDS LCD and standard CRT interfaces with AC97 audio for the following diverse applications:

- Point of Information
- Gaming
- Digital Signage

Comprehensive Communication and Connective Capacity

Four USB ports, two RS-232 ports, Ethernet interfaces and a PC Card slot enable ARK-1380 to be an ideal performance solution for diversified applications, such as:

- Data communication gateway for navigation and transportation
- POS/Kiosk control, self-service of entrance control, ticketing, payment and information preview system

Optimized Integration in a Robust Casting Construction

- Few parts, no cables, easy integration and easy maintenance for reduced investment
- System is supplied "Ready to Run"
- Accepts a wide range of DC input voltages: 9 ~ 35 V

Specifications

Processor Core Logic System

- **CPU** Embedded Intel Ultra Low Voltage Celeron M 1 GHz/ Celeron M 600 MHz Processor
- **System Chipset** Intel 855GME/852GM chipset
Intel ICH4 chipset
Celeron M 1.0GHz with 855GME
Celeron M 600MHz with 852GM
Award 4 Mbit flash BIOS
- **BIOS** 1 x 200-pin SODIMM Socket
- **System Memory** supports DDR SDRAM up to 1 GB

Display

- **Controller** Integrated graphics controller built in to Intel 855 GME/852GM GMCH, utilizing Intel Extreme Graphics 2 technology
- **Video Memory** Dynamic video memory allocation up to 64 MB
- **Display Interface** CRT interface
36-bit LVDS interface
- **Resolution** CRT Mode: up to 1600 x 1200 at 85 Hz, and 2048 x 1536 at 75 Hz
LCD mode: Dual-channel LVDS panel supports up to UXGA resolution at frequencies of 25 ~ 112 MHz

Audio

- **Audio Interface** Built-in Audio controller on Intel ICH4 chipset
Built-in Dual output 2.2 W amplifier
AC97 stereo surround sound

Ethernet

- **Ethernet Controller** Intel 82562 GZ 10/100Base-T Ethernet controller

PC Card

- **PC Card Controller** Built-in Ricin® R5C485 PC Card controller
- **PC Card Slot Interface** Built-in 1 x PC Card Slot, that supports:
CardBus (Card-32) Card and 16-bit (PCMCIA 2.1/JEIDA4.2) Card
+5 V and +3.3 V working power

USB

- **USB Controller** Built-in USB 2.0 controller on Intel ICH4 chipset supports 4 x USB 2.0 ports

Serial Port

- **Serial Interface** Built-in Winbond W83627HF LPC Super I/O Controller supports 2 x RS-232/422/485 ports by BIOS selection

Others

- **Watchdog Timer** 255 level timer interval, setup by software

Storage

- **SSD Interface** Supports 1 x CompactFlash® Socket for Type I/II CompactFlash disk

Software Options

- Windows XP Embedded, Windows XP Professional and Windows CE 6.0

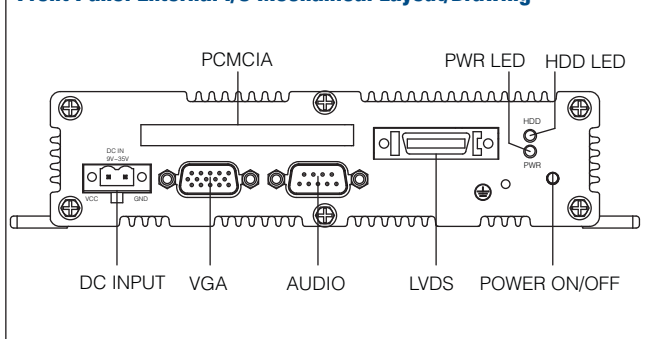
Front Panel External I/O

- 1 x 2-Pole Phoenix power input connector (Left: Ground, Right: VCC)
- 1 x PC Card (PCMCIA/CardBus) slot
- 1 x D-SUB 15-pin female connector as VGA/CRT connector
- 1 x D-SUB 9-pin female connector as audio connector

Note: This connector carries signals for Speak-out, Line-in and Mic-in these functions can be supported by connecting an external Audio cable which has been included in the accessory box.

- 2 x status LEDs as “PWR” and “HDD”
- 1 x ATX Power On/Off button

Front Panel External I/O Mechanical Layout/Drawing



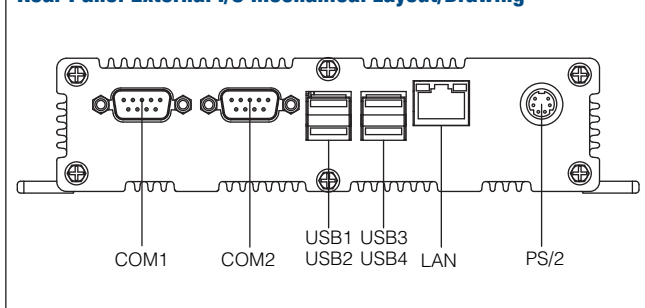
Rear Panel I/O Connectors

- 2 x RS-232/422/485 serial ports as COM1 and COM2

Note: The default setting of COM1 and COM2 is RS-232; the user can switch to RS-422/485 mode by BIOS selection

- 4 x USB 2.0 connectors as USB1~USB4
- 1 x PS/2 Keyboard/Mouse Connector
- 1 x RJ45 connector supports 10/100Base-T Ethernet connection

Rear Panel External I/O Mechanical Layout/Drawing



Mechanical

- **Construction** Aluminum housing
- **Mounting** VESA Mounting, Din-Rail mounting, Desk/Wall mount
- **Dimension** 95 x 114 mm (3.7" x 5.4")
- **Weight** 1.4 kg

Power Supply

- **Power Consumption** 25 W
- **Fuse Rating** 7 A @ 125 V
- **Input Voltage** Supports 9 V_{DC} ~ 35 V_{DC}, ATX, Supports Power Input Reserved Protection, Supports Power Input Surge Protection, Supports Power On after power failure via BIOS setting
- Max Power Input:
 - 9 V_{DC}/3.8 A
 - 12 V_{DC}/2.9 A
 - 16 V_{DC}/2.18 A
 - 19 V_{DC}/1.84 A
 - 24 V_{DC}/1.46 A
 - 35 V_{DC}/1 A

Environmental Specification

- **Operating Temperature** When system is equipped with Commercial Grade Compact Flash Disk and memory: 0° C to 60° C
- **Extended Operating Temperature** When system is equipped with industrial grade Compact Flash Disk and Memory: -40° C to 60° C
- **Relative Humidity** 95% @ 40° C
- **Shock During Operation** When system is equipped with Compact Flash disk only: 50 Grms, IEC 68-2-27, half sine, 11 ms duration
- **Vibration During Operation** When system is equipped with Compact Flash Disk only: 5 Grms, IEC 68-2-64, random, 5 ~ 500 Hz, 1 Oct./min, 1hr/axis.
- **Chassis size (W x D x H)** 188.8 x 106.5 x 35.5 mm (7.5" x 4.2" x 1.4")
- **EMC Approved** CE/FCC Class A
- **Safety Approved** UL/CCC/BSMI

Packing List

- 1 x ARK-1380 Unit
- 1 x Driver/Utility CD (P/N: 2066138000)
- 1 x 2-Pole Phoenix to DC-Jack Power Cable (P/N: 1700001394)
- 1 x DB-9 Male to Mic_In, Ln_Out and Ln_In Audio Cable (P/N:1700006011)

Ordering Information

- **ARK-1380-1S0A1E** Intel ULV Celeron M 1GHz, 2 x Serial ports, PCMCIA, 1 x LAN, 4 x USB 2.0, 2 x COM, 1 x VGA, 1 x LVDS, Ultra Compact, Fanless Embedded Box Computer
- **ARK-1380-2S0A1E** ARK-1380-1S0A1E with 512 MB DDR SDRAM, 1 GB Compact Flash Disk, pre-installed Windows CENET 5.0 Professional Plus and License
- **ARK-1380-1M0A1E** Intel Celeron M 600MHz, 2 x Serial ports, PCMCIA, 1 x LAN, 4 x USB 2.0, 2 x COM, 1 x VGA, 1 x LVDS, Ultra Compact, Fanless Embedded Computer
- **ARK-1380-2M0A1E** ARK-1380-1M0A1E with 512 MB DDR SDRAM, 1GB Compact Flash Disk, pre-installed Windows XP Embedded FP2007 OS Image and License

Optional Items

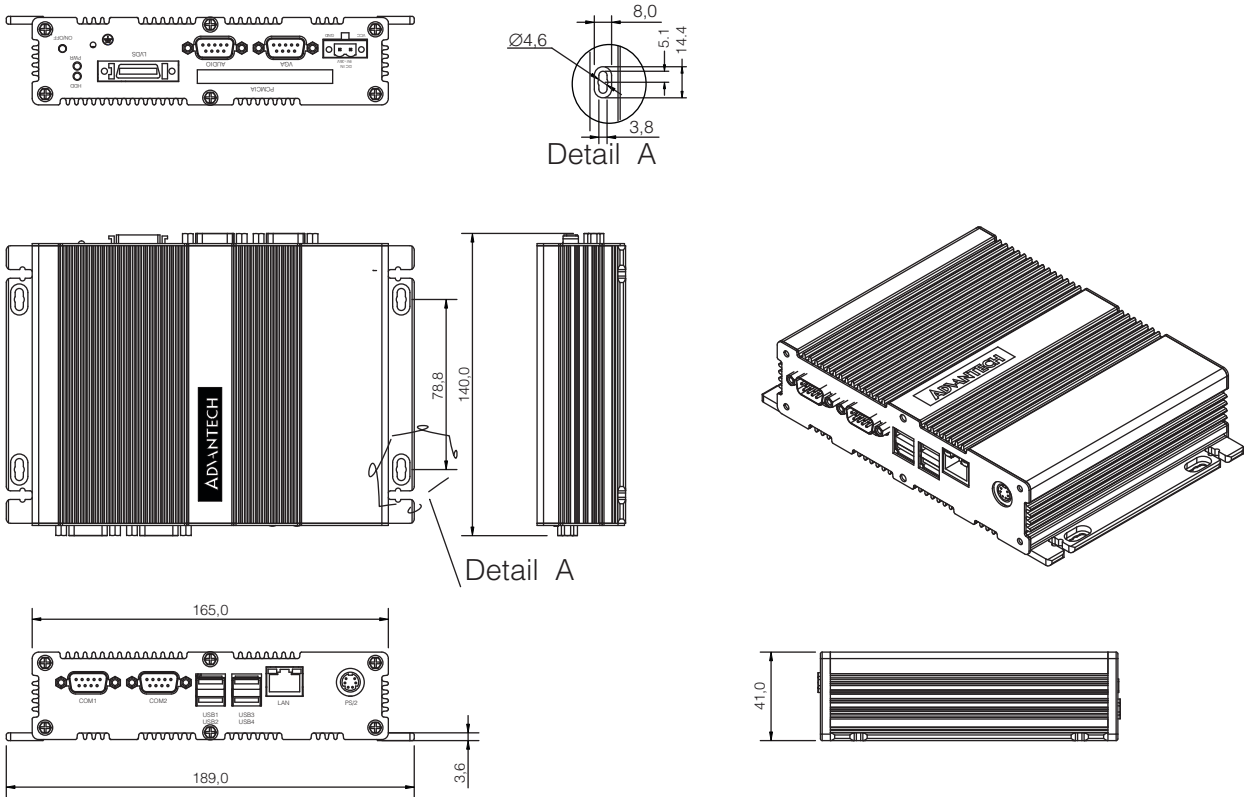
- **1757000222** AC-to-DC Adapter DC19 V/3.42 A 65 W, with Phoenix Power Plug, 0 ~ 40° C for Home and Office Use
- **1700060202** PS2 Keyboard/Mouse Cable
- **1960008516** VESA mounting plate
- **1700001947** Power Cable 2-pin 180 cm, USA type
- **1700001948** Power Cable 2-pin 180 cm, Europe type
- **1700001949** Power Cable 2-pin 180 cm, UK type
- **1997001110, 1997001120, 1997001130, 1997001140** Din-Rail Mounting Kit

Embedded OS (Only available for T-Parts OEM, and CTOS service)

- 2070001119 XPE with Feature Pack 2007 OS Image and License for ARK-1380, English Version (600 MB)
- 2070001121 Windows CE.NET 5.0 Professional Plus OS Image and License for ARK-1380, English Version (36MB)
- 2070001123 Windows CE.NET 6.0 Professional OS Image and License for ARK-1380, English Version (Available from May, 2006)

Dimensions

Unit: mm



Application Example

