

ARK-3380

Multiple Video Interface, Fanless, Embedded Box Computer



Features

- DVI, LVDS, and TV-out display Interface with dual display capability
- Built-in Intel® Ultra Low Voltage Celeron® or Low Voltage Intel Pentium® M processor
- Sealed construction with fanless operation
- Anti-vibration to ensure maximum reliability
- Easy integration, easy maintenance, few parts, with wide range of power source
- Embedded software support

Introduction

The ARK-3380 Fanless Embedded Box Computer combines a rich display interface and other industrial features into a rugged, compact metal chassis for multimedia intensive applications. The fanless operation provides noise protection to the platform when deployed in external environments. The ARK-3380 Embedded Box Computer is ideally suited for embedded PC applications. All electronics are protected in a compact sealed housing for convenient embedded and stand alone applications, where space and environment considerations are critical.

Specifications

Processor Core Logic System

- **CPU** Intel Ultra Low Voltage Celeron or Intel Pentium M Low Voltage Processor
ULV Celeron M 600 MHz (ARK-3380-1M0A1)
LV Pentium M 1.1 GHz (ARK-3380-1S1A1)
LV Pentium M 1.4 GHz (ARK-3380-1S4A1)
- **System Chipset** Intel 852GM GMCH or Intel 855GME Chipset
Intel ICH4 Chipset
400 MHz FSB
- **BIOS** 4 Mbit Flash BIOS, supports Plug & Play, APM 1.2
- **System Memory** 1 x 200-pin SO-DIMM sockets
1 x DDR 200-pin SO-DIMM, Max. 1 G

Display

- **Chipset** Integrated graphics built-in Intel 852GM GMCH, or Intel 855GME GMCH, utilizing Intel® Extreme Graphics 2 technology
- **Display Memory** Dynamic video memory allocation up to 32 MB
- **Display Interface** CRT Interface
36-bit LVDS interface
DVI interface, compliant with DVI specification 1.0

Ethernet

- **Ethernet Controller** Intel 82551ER 10/100BaseT Ethernet Controller

Audio

- **Audio Interface** Audio controller on the ICH4 chip
AC97 3D surround stereo sound, Dual 6 W Amplifier

Other

- **Watchdog Timer** 255 levels timer interval, setup by software
- **Keyboard/Mouse** Supports PS/2 Mouse and PS/2 Keyboard
- **USB** USB 2.0 compliant

Software Options

- Windows XP Embedded, Windows 2000/XP

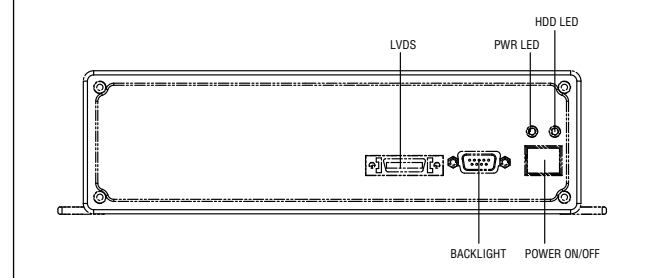
Storage

Supports a drive bay space for 2.5" HDD
Supports a CompactFlash socket for Type I/II CompactFlash disk

Front Panel External I/O

- 1 x LVDS Port by D-Sub Connector
- 1 x Backlight On/Off Control Connector
- 1 x Power On/Off Button

Front Metal Panel I/O Mechanical Drawing/Layout



Mechanical

- **Construction** Aluminum housing
- **Mounting** Din-Rail mounting
Desk/wall-mounting
- **Dimensions (W x H x D)** 264.5 x 69.2 x 137.25 mm (10.41" x 2.72" x 5.4")
- **Weight** 2 kg

Power Supply

- Output Rating 46 W
- Fuse Rating 7 A @ 125 V
- Input Voltage 12 VDC ~ 24 VDC, Typical 12 VDC @ 4.5 A, 16 VDC @ 3.4 A, 19 VDC @ 2.9 A, 24 VDC @ 2.3 A

Environment Specifications

- Operating Temperature** When system is equipped with Industrial Grade CompactFlash disk only -20 ~ 60° C
When system is equipped with 2.5-inch hard disk 0 ~ 45° C
- Relative Humidity** 95 % @ 40° C (non-condensing)
- Vibration Loading During Operation**
When system is equipped with CompactFlash disk only: 5 Grms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 Oct./min, 1 hr/axis.
When system is equipped with 2.5-inch hard disk: 1 Grms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 Oct./min, 1 hr/axis.
- Shock During Operation** When system is equipped with CompactFlash disk only: 50 G, IEC 60068-2-27, half sine, 11 ms duration
When system is equipped with hard disk: 20 G, IEC 60068-2-27, half sine, 11 ms duration
- EMC Approved** CE, FCC
- Safety Approved** UL

Rear Panel External I/O

- 1 x Series Port: Supports RS-232 Interface as COM1
- 1 x Serial Port Supports RS-232/422/485 interface as COM2 (Note: The default setting of COM2 is RS-232. The RS-422/485 mode of COM2 can be supported via replacing the internal cable and adjusting the jumper inside of system)
- 1 x RJ45 Port: Support 10/100Base-T Ethernet Connection
- 1 x PS/2 Connector
- 1 x Reset Button
- 1 x VGA/CRT Connector
- 1 x USB 2.0 Connector
- 1 x Phoenix Type of Power Input Connector
- 1 x Line-out Port
- 1 x Mic-in Port

- 1 x Line-in Port
- 1 x DVI Port
- 1 x S-Video Output Connector
- 1 x Composite Video Output Connector

Packing list

- 1 x ARK-3380 Unit
- 1 x DIN-Rail Mounting Kit
- 1 x PS2 Keyboard/Mouse Cable (P/N: 1700060202)
- 1 x Utility CD
- 1 x Flat Cable Supports RS-485/RS-422 Mode for COM2 Serial Port (P/N: 1700001967)
- 1 x 2-P Phoenix to DC-Jack power cable (P/N: 1700001394)

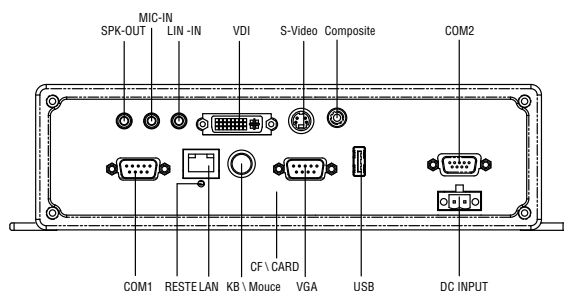
Ordering Information

- ARK-3380-1M0A1E** ULV Celeron M 600 MHz Embedded Box Computer, with DVI, LVDS, Audio, Fast Ethernet, S-Video, C-Video, 1 x RS-232, 1 x RS-232/422/485
- ARK-3380-1S1A1E** LV Pentium M 1.1 GHz Embedded Box Computer, with DVI, LVDS, Audio, Fast Ethernet, S-Video, C-Video, 1 x RS-232, 1 x RS-232/422/485
- ARK-3380-1S4A1E** LV Pentium M 1.4 GHz, Embedded Box Computer, with DVI, LVDS, Audio, fast Ethernet, S-Video, C-Video, 1 x RS-232, 1 x RS-232/422/485

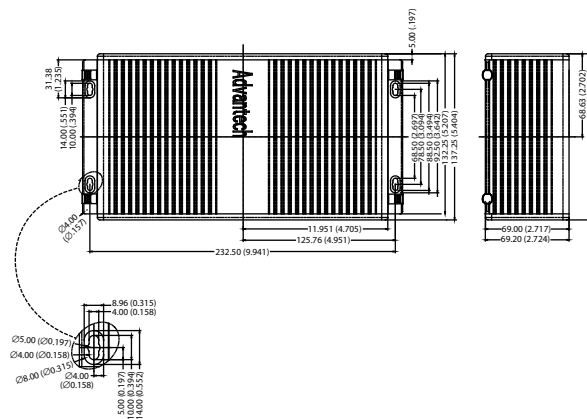
Optional Items

- 1757000222** AC-to-DC Adapter DC19 V/3.42 A 65 W, with Phoenix Power Plug, 0 ~ 45° C for Home and Office Use
- 1700001947** Power cable 2P 180 cm, USA for ARK-338X
- 1700001948** Power cable 2P 180 cm, Europe for ARK-338X
- 1700001949** Power cable 2P 180 cm, UK for ARK-338X
- 2070000521** XPE SP1 OS Image and License for ARK-3380/1/2/9, English Version (440 MB)
- 2070000636** XPE SP2 OS Image and License for ARK-3380/1/2/9, English Version (600 MB)
- 2070000574** XPE SP1 OS Image and License for ARK-3380/1/2/9, Traditional Chinese Version(477 MB)
- 2070000637** XPE SP2 OS Image and License for ARK-3380/1/2/9, Japanese Version (600 MB)

Rear Metal Panel I/O Mechanical Drawing/Layout



Dimensions



Unit: mm (inch)

Benefits

Dual Display, Video Intensive capacity

Rich display interface of DVI, LVDS and TV-out; as well as AC97 Stereo audio designed for diverse applications:

- Point of information
- Gaming
- Digital display broadcasting system

Highly Robust Casting Construction

- Fanless operation in aluminum sealed construction
- A special cushioned design that absorbs vibration to ensure maximum reliability under harsh conditions

Highly Compact Size

- With its maximum mounting height of 69 mm, the ARK-3380 can be used under space critical installation conditions

Highly Scalable Performance with Low Power Consumption

- Scalable Low Voltage and Ultra Low Voltage Pentium M class processor system to bring high computing performance with low power consumption

Optimized Integration

- Few parts, easy integration, easy maintenance to reduce investment
- Systems are supplied "Ready-to-Run"
- Long life cycle support for product continuity

Wide Range of Power Source

- Wide range of DC 12 V ~ 24 V power source offers flexibility of power input for various automation environments

Applications

The ARK-3380 offers comprehensive multimedia I/O support featuring dual display, TV-out, DVI, LVDS and SC97 stereo audio.

- POI/POS
- Intelligent Traffic Surveillance
- KIOSK
- Machine Vision System
- Gaming
- Digital Casting System

Application Examples

