# ARK-1123HVS

## Intel® Celeron® Quad Core J1900 SoC with Dual HDMI and Dual GbE Fanless Box PC



**WebAccess/IVS**

CCC  CE  FCC

## Features

- Intel® Celeron® J1900 Quad Core 2.0 GHz SoC
- 1 x 2.5" SATA HDD/SSD Bay
- 2 x GbE for Multiple Internet Transmission
- 2 x Independent HDMI
- 1 x RS-232/422/485 (BIOS selection)
- 1 x Full-Size MiniPCIe (ex. WLAN or WWAN module)
- 1 x Half Size MiniPCIe (ex. mSATA)
- Optional VESA / DIN Rail / Wall Mounting kits
- Threaded DC jack design
- Supports SUSIAccess and embedded software APIs

## Specifications

| | | ARK-1123HVS-00A1E |
|---|---|---|
| Processor System | CPU | Intel® Celeron™ Processor J1900 Quad Core 2.0 GHz SoC |
| | Frequency | 2.0 GHz (Up to 2.41 GHz w/ burst frequency enabled) |
| | L2 Cache | 2 MB |
| | BIOS | AMI EFI 64 Mbit (Default BIOS is supported for 64-bit OS installation, BIOS for 32-bit OS is supported by project) |
| Memory | Technology | 4G DDR3L 1600MHz |
| | Max. Capacity | 8 GB |
| | Socket | 1 x 204-pin SO-DIMM |
| Graphics | Chipset | Intel® Atom SoC integrated |
| | Graphic Engine | DirectX* 11.1, OGL 3.0, OCL 1.1, OGL ES 2.0<br>Encode: H264, MPEG2/4, VC1, WMV9<br>Decode: H264, MPEG2 |
| | HDMI | 2 x Lockable HDMI connector, support up to 1920 x 1080 at 60Hz |
| Audio | Main System | ALC-888S, High Definition Audio. Line-out & Line-in |
| Ethernet | LAN #1 | 10/100/1000 Mbps Intel I210 GbE, support Wake on LAN |
| | LAN #2 | 10/100/1000 Mbps Intel I210 GbE, support Wake on LAN |
| I/O Interface | Serial Ports | 1 x RS-232/422/485 (BIOS selectable) |
| | USB Interface | 2 x USB 2.0 & 1 x USB3.0 |
| Other | Watchdog timer | 255-level timer interval, setup by software |
| Expansion | Mini PCIe #1 | 1 x Full-size Mini PCIe, support WLAN or WWAN module |
| | Mini PCIe #2 | 1 x Half-size Mini PCIe, support Half-size mSATA module |
| Storage | 2.5" Drive Bay | 1 x 2.5" SATA HDD Bay (Max Height 7mm) |
| | mSATA | 32G |
| Software Support | Microsoft Windows | WES7, Windows 7, WE8S, Windows 8 (32-bit support by project) |
| | Linux | Support (by Project) |
| Power Requirement | Power Input Voltage | Single 12 $V_{DC}$ |
| | Power Adapter | AC to DC, DC12 V/3 A, 36 W with threaded design |
| Mechanical | Construction | Aluminum housing |
| | Mounting | VESA/DIN Rail/Wall Mounting Kits (Optional) |
| | Dimensions (W x H x D) | 133.8 x 43.1 x 94.2 mm (5.27" x 1.7" x 3.71") |
| Environment | Operating Temperature | With extended temperature SSD/mSATA/RAM : -20 ~ 60 °C with 0.7m/s air flow<br>With standard temperature HDD/SSD/mSATA/RAM peripherals:0 ~ 40 °C with 0.7m/s air flow |
| | Storage Temperature | -40 ~ 85 °C (-40~185 °F) |
| | Relative Humidity | 95% @ 40 °C (non-condensing) |
| | Vibration During Operation | With mSATA/SSD: 3 Grms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 hr/axis<br>With HDD: 0.5Grms, IEC 60068-2-64, random, 5~500Hz, 3 axes, 1hr/axis |
| | Shock During Operation | With mSATA/SSD: 30 G, IEC 60068-2-27, half sine, 11 ms duration<br>With HDD: 10G, IEC 60068-2-27, half sine, 11 ms duration |
| Regulation | EMC | CE/FCC Class A, CCC, BSMI |
| | Safety | UL, CCC, BSMI, CB |

# WebAccess/IVS Function Description

| Function | Specification | Description |
|---|---|---|
| **Monitoring** | Status display | ▪ Displays status and lists events of system login/logout, lost video, cameras status, web and remote connection, storage space, backup, sensors, and DO status |
| | e-Map | ▪ e-map layout shows the locations of video cameras, sensors and alarm devices, allowing you to control them and link actions to the surveillance system simultaneously; also provides a free tool for e-map editing |
| | Event log displaying | ▪ Real time display for event listings and automatic refresh of video events in ViewLog |
| | Screen Split | ▪ Full screen, 1, 4, 9, 10,13, 16 Sequencer, (Able to change time interval) |
| | Camera layout | ▪ Assign name and adjustable font to each camera |
| | Quality adjustment | ▪ Adjustable color control of Hue, Contrast, Brightness, and Saturation for preview, record and playback. |
| **Recording** | Resolutions | ▪ Selectable recording resolutions (Depends on the capture card and IP camera selected) |
| | Compression format | ▪ H.264 |
| | Recording modes | ▪ Cyclic Recording, Non-Cyclic recording, Event Triggered Recording, and Scheduled Recording |
| | Recording Quality | ▪ Adjustable recording quality |
| | Recording Frame | ▪ Adjustable recording frames of each camera and event |
| | Pre & Post Alarm Recording | ▪ Adjust pre-alarm and post-alarm recording time (Pre-alarm recording: 10 seconds, post-alarm recording: 100 seconds) |
| | Record file length | ▪ Adjustable file length for record searching segment |
| **Search & Playback** | Playback Speed | ▪ Single frame, 1/16x, 1/8x, 1/4x, 1/2x, 1x, 2x, 4x, 8x,16x, fast forward and rewind |
| | Playback Mode | ▪ Can show up to 4 cameras' playback images simultaneously |
| | Search Mode | ▪ Allows image searching by date, time, camera, and event.<br>▪ Calendar and time segment for day and time search.<br>▪ Selectable event time, event type, and camera IDs for event search |
| | Smart Search | ▪ Able to search archives for incidents. Smart search list |
| | Image Transfer | ▪ Able to save image as BMP, JPG and AVI format.<br>▪ Selectable day and time for video saving or using bookmark time record list directly. |
| | Bookmark | ▪ Stores many bookmarks to facilitate searching. |
| **Data Storage** | Recording Time | ▪ Recording length varies depending on recording quality, resolution, mode and activity<br>▪ Auto continuous recording-- oldest recorded data will automatically be overwritten when hard drive is full |
| | Backup | ▪ Local: HDD/CD-RW/DVD-RW selectable/External USB HDD/CD-RW/DVD-RW<br>▪ Backup mode: Auto (schedulable) and Manual to backup video file |
| | Storage Path | ▪ Adjust each storage path of each camera and reserve size.<br>▪ Setup each storage path to automatically delete the oldest file records |
| **Alarm Notification** | Event Action Plan | ▪ Flexible, multiple event action plan. Able to define multiple actions taken for event source.<br>▪ Event source: motion detected, sensor triggered, video signal breaks, login failed, system abnormal and backup disk full etc.<br>▪ Event action: DO output, PTZ Control, e-mail sending, SMS notify, video file record, snapshots, phone/mobiles notification, warning sounds, video group play and specific program execute etc. |
| | E-mail and Phone notification | ▪ E-mail notification with attached recording file or snapshot image of any event triggered<br>▪ E-mail and phone notification on multi event source. (with voice modem option) |
| | PTZ Activation | ▪ Supports alarm setup with PTZ preset location. |
| | Sensor and DO | ▪ Adjustable sensor, DO layout, schedulable |
| **Network Control** | IE Remote Control | ▪ View live video, event list, PTZ control, and do remote recording, remote playback, remote setting, e-map function and remote snapshot through IE browser<br>▪ Supports 1, 4, 9, 10,13, 16 screen split |
| **Operation** | User Authority | ▪ Multi-level password protection and unlimited user accounts for logins and passwords. |
| | Authority setting | ▪ Allows authority settings of each user to each camera (local and remote monitor, playback, PTZ control, DO and e-map control, network connecting user numbers, with time limits, print and save function, control, etc.) |
| | PTZ Control | ▪ Embedded PTZ control panel: Pan & Tilt, zoom control and preset function.<br>▪ Supports most popular PTZ protocol |
| | Dynamic IP support | ▪ Built-in Web server. Supports dynamic IP. |
| | Language | ▪ English, Traditional Chinese, Simplified Chinese |
| | Others | ▪ Windows lockup<br>▪ Auto DVR login<br>▪ Auto reboot |

# Plus Package Benefits

**WebAccess/IVS SDK available for 3rd party CMS or AP software integration**

SDK

**WebAccess/IVS**

**Intelligent Video Analytics (IVA)**

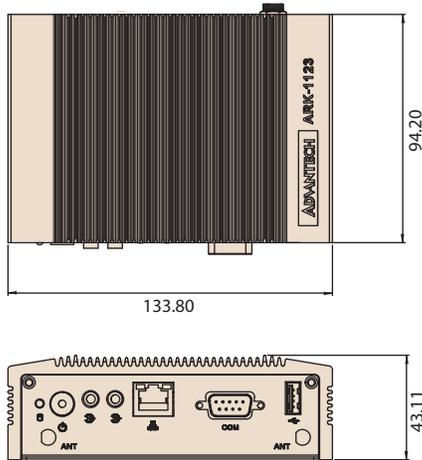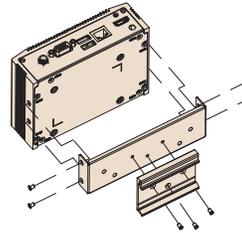Object Counting | People Counting | Camera Tamper | Optical Self Diagnostic | Motion Detection | Forbidden Zone | Demographic
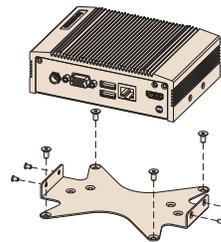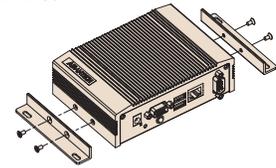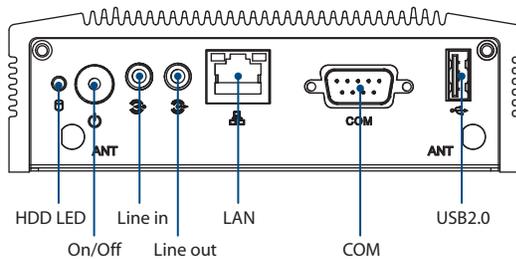
# Dimensions

**DIN Rail**

Unit: mm



94.20

133.80

43.11



**VESA mount**

**Wall mount**



# Front View



| HDD LED | Line in | LAN | | USB2.0 |
| On/Off | Line out | | COM | |

# Rear View



| DC Input | | USB3.0 | LAN | |
| | HDMI | USB2.0 | | HDMI |
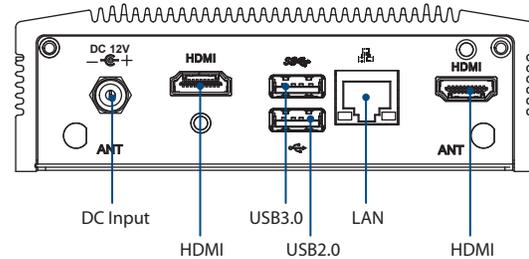
# Ordering Information

| Part Number | CPU | RAM | HDMI | GbE | USB 2.0 | USB 3.0 | RS-232/ 422/485 | Audio | MiniPCIe | 2.5" HDD bay | mSATA | Operating Temperature |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ARK-1123HVS-00A1E | Intel Celeron J1900 | 4G | 2 | 2 | 2 | 1 | 1 | Line in Line out | 1 Half size 1 Full size | 1 | 32G | -20 ~ 60 °C |

# Packing List

| Description |
|---|
| 1 x ARK-1123HVS Unit |
| 1 x User Manual (Simplified Chinese) |
| 1 x AC to DC adapter DC12 V/3 A 36 W, 0 ~ 40 °C with threaded design |
| 1 x Power Cable 3-pin 180cm, USA type |

# Embedded OS

| Description |
|---|
| Windows 7 embedded 64-bit |

# Optional Accessories

| Part Number | Description |
|---|---|
| 170203183C | Power Cable 3-pin 180cm, Europe type (For power adapter 1757004096-01) |
| 170203180A | Power Cable 3-pin 180cm, UK type (For power adapter 1757004096-01) |
| 1700008921 | Power Cable 3-pin PSE Mark 183cm (For power adapter 1757004096-01) |
| 1757004522-01 | AC-to-DC Wide Temperature Adapter, DC 12V/3.33A 40W, -20 °C ~ 70 °C |
| 1702002600-01 | Power cable 3-pin 183 cm, USA type (For power adapter 1757004522-01) |
| 1700018705 | Power cable 3-pin 183 cm, Europe type (For power adapter 1757004522-01) |
| 1700018704 | Power cable 3-pin 183 cm, UK type (For power adapter 1757004522-01) |
| 1700000237-01 | Power cable 3-pin 183 cm, PSE type (For power adapter 1757004522-01) |
| AMK-V003E | ARK-112X series VESA mounting kit |
| AMK-R001E | ARK-112X series DIN-rail mounting kit |
| AMK-W001E | ARK-112X series Wall mounting kit |