

# ARK-VH200

## Intel® Atom™ Dual Core D510 In-Vehicle DVR with 4 BNC Fanless Box PC



susiAccess



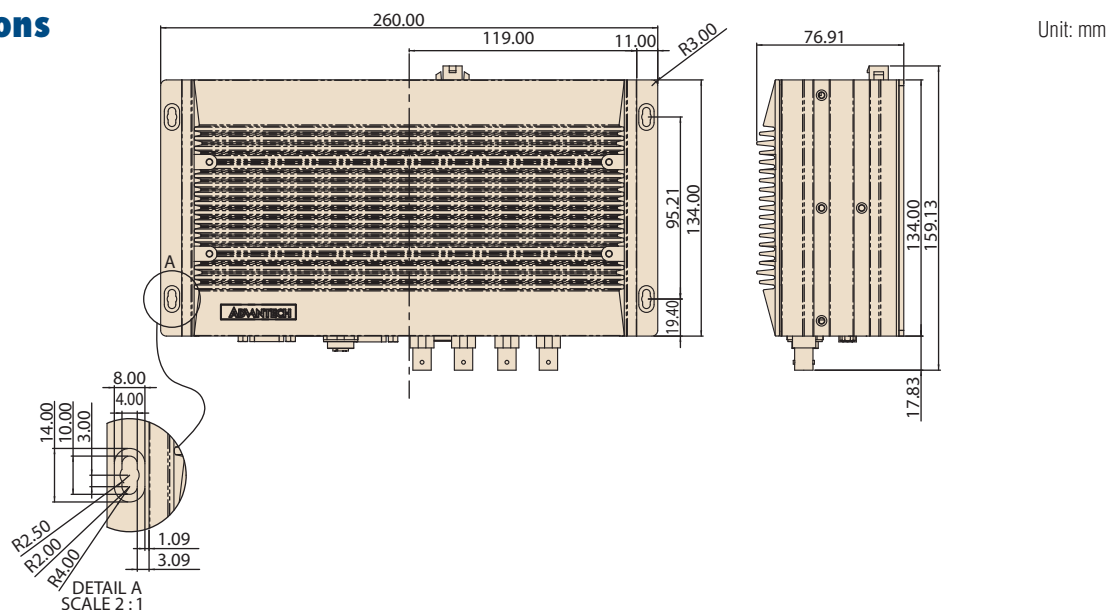
### Features

- Intel® Atom™ D510 processor at 1.66 GHz
- 120/100 FPS D1 resolution video preview and recording
- Optional add-on Mini PCIe card for wireless applications, e.g. WLAN or 3.5G module
- eSATA for large capacity external HDD
- In-vehicle power design and IGN support, compliant with ISO-7637-2
- 4 x USB 2.0 ports (2 x USB ports are lockable for secure connection)
- Compliant with EN50155 for rail transportation applications
- IP40 sealed design
- Supports SUSIAccess and Embedded Software APIs

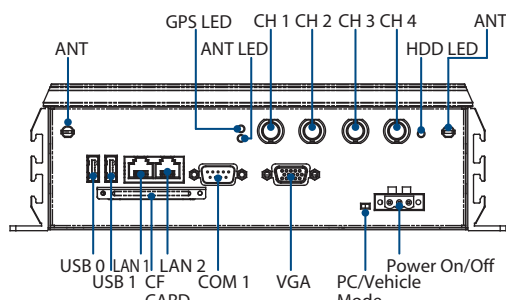
### Specifications

|                   |                                    |                                                                                                                                                                                           |
|-------------------|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Processor System  | CPU                                | Intel Atom Dual Core D510                                                                                                                                                                 |
|                   | Frequency                          | 1.66 GHz                                                                                                                                                                                  |
|                   | L2 Cache                           | 1 MB                                                                                                                                                                                      |
|                   | BIOS                               | AMI 16 Mbit Flash BIOS                                                                                                                                                                    |
| Memory            | Technology                         | DDR2 667 MHz                                                                                                                                                                              |
|                   | Max. Capacity                      | 2 GB                                                                                                                                                                                      |
|                   | Socket                             | 1 x 200-pin SO-DIMM                                                                                                                                                                       |
| Graphics          | Chipset                            | Embedded Gen 3.5G+GFX Core, Intel Gen 3.5 DX9, MPEG2 Decode in HW                                                                                                                         |
|                   | Interface                          | CRT Interface                                                                                                                                                                             |
| Ethernet          | LAN 1                              | 10/100/1000 Mbps Intel 82567V GbE, support Wake On LAN                                                                                                                                    |
|                   | LAN 2                              | 10/100/1000 Mbps Intel 82583V GbE, support Wake On LAN                                                                                                                                    |
| Audio             | Interface                          | Line-out, Mic-in                                                                                                                                                                          |
| IO interface      | Serial Interface                   | 2 x RS-232 port, 1 x RS-232/422/485 (Optional)                                                                                                                                            |
|                   | USB Interface                      | 4 x USB ports, Compliant with USB 2.0 (2 x USB ports are lockable)                                                                                                                        |
| Other             | Digital I/O                        | Supports up to 4-bit DIO                                                                                                                                                                  |
|                   | GPS                                | On-board GPS                                                                                                                                                                              |
|                   | eSATA                              | 1 x eSATA                                                                                                                                                                                 |
|                   | Watchdog timer                     | 255-level timer interval, setup by software                                                                                                                                               |
| Expansion         | Mini PCIe                          | 2 x Mini PCIe                                                                                                                                                                             |
|                   | SIM Socket                         | 1 x SIM Socket                                                                                                                                                                            |
| Video Recording   | Video Compression                  | H/W H.264                                                                                                                                                                                 |
|                   | Video Input                        | 4 x Ch Video Inputs, BNC                                                                                                                                                                  |
|                   | Video Resolution                   | Preview@D1; Record@D1+CIF (dual stream)                                                                                                                                                   |
|                   | Video Frame                        | Total 120/100 FPS (NTSC/PAL) @ D1 resolution                                                                                                                                              |
|                   | SDK Support                        | VC++/.NET/VB/V4L2                                                                                                                                                                         |
| Storage           | HDD                                | Supports 1 x SATA 2.5" HDD Bay (9.5 mm height only)                                                                                                                                       |
|                   | SSD                                | Supports CompactFlash socket for type I/II CompactFlash disk                                                                                                                              |
| Software Support  | Microsoft Windows                  | WES2009, WES7                                                                                                                                                                             |
|                   | Linux                              | Fedora v10.04.1                                                                                                                                                                           |
| Power Requirement | Power Type                         | AT/ATX                                                                                                                                                                                    |
|                   | Power Input Voltage                | PC Mode: 9 V <sub>DC</sub> ~ 32 V <sub>DC</sub><br>VH Mode: 12 V battery (11 V <sub>DC</sub> ~ 16 V <sub>DC</sub> ), 24V battery (22 V <sub>DC</sub> ~ 32 V <sub>DC</sub> )               |
|                   | Ignition                           | Supports ignition function                                                                                                                                                                |
|                   | PIC Firmware                       | Battery status check, and Off-delay support                                                                                                                                               |
|                   | Minimum Power Inputs               | 36W                                                                                                                                                                                       |
|                   | Power Adapter                      | AC to DC, DC19V/3.42A, 65W (Optional)                                                                                                                                                     |
| Power Consumption | Typical                            | 19 W                                                                                                                                                                                      |
|                   | Max.                               | 22 W                                                                                                                                                                                      |
| Mechanical        | Construction                       | Aluminum housing                                                                                                                                                                          |
|                   | Mounting                           | Desk/wall-mounting                                                                                                                                                                        |
|                   | Dimensions (W x H x D)             | 260 mm x 77 mm x 134 mm                                                                                                                                                                   |
|                   | Weight                             | 3 kg (6.6 lb)                                                                                                                                                                             |
| Environment       | Operating Temperature              | With extend temperature peripherals CompactFlash disk: -20 ~ 60° C (-4 ~ 140° F)<br>With extend temperature peripherals 2.5-inch hard disk 0 to 45° C (32 ~ 113° F) , with air flow       |
|                   | Storage Temperature                | -40 ~ 85° C (-40 ~ 185° F)                                                                                                                                                                |
|                   | Relative Humidity                  | 95% @ 40° C (non-condensing)                                                                                                                                                              |
|                   | Vibration Loading During Operation | With CompactFlash disk: 5 Grms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 Oct./min, 1 hr/axis.<br>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             | With CompactFlash disk: 50 G, IEC 60068-2-27, half sine, 11 ms duration<br>With hard disk: 20 G, IEC 60068-2-27, half sine, 11 ms duration                                                |
|                   | EMC                                | CE/FCC Class A                                                                                                                                                                            |
|                   | Safety Certifications              | CE/FCC, CCC, UL/cUL                                                                                                                                                                       |
|                   | In-Vehicle Certification           | E-Mark E13                                                                                                                                                                                |

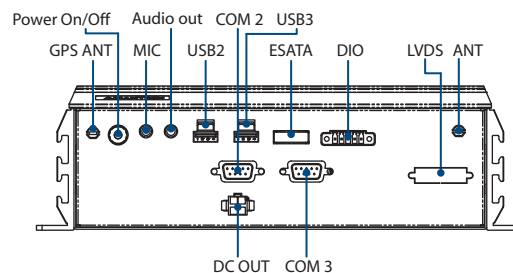
## Dimensions



### Front Panel External I/O Mechanical Layout/Drawing



### Rear Panel External I/O Mechanical Layout/Drawing



## Ordering Information

| Part Number      | Intel CPU              | RAM        | Display | Audio           | GBE | Storage                       | USB 2.0 | COM                                        | On board GPS | 4-bit GPIO | MiniPCle     | eSATA | Video                   | Operating Temp. |
|------------------|------------------------|------------|---------|-----------------|-----|-------------------------------|---------|--------------------------------------------|--------------|------------|--------------|-------|-------------------------|-----------------|
| ARK-VH200A-D5A2E | Intel Atom D510 1.6GHz | Up to 2 GB | VGA     | Line-out Mic-in | 2   | 1x 2.5" HDD bay & 1 x CF Card | 4       | 2 x RS-232 & 1 x RS-232/422/485 (Optional) | 1            | 1          | 2 (1 w/ SIM) | 1     | 4 Ch Video Inputs (BNC) | -20 ~ 60° C     |

Note: Memory, storage and operating system bundled by request.

## Packing List

| Part Number | Description                              |
|-------------|------------------------------------------|
| -           | 1 x ARK-VH200 Unit                       |
| -           | 1 x Driver/Utility CD/Manual             |
| -           | 1 x User Manual (Simplified Chinese)     |
| 1652004519  | 1 x 3-pole Phoenix Power BLOCK 5.0mm     |
| 1750001782  | 1 x GPS antenna Active with 5M SMA cable |

## Optional Items

| Part Number | Description                                                           |
|-------------|-----------------------------------------------------------------------|
| 1757003659  | AC-to-DC Adapter DC19 V/3.42 A 65 W, 0 ~ 40°C for Home and Office Use |
| 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                                     |
| AMK-C001E   | In-vehicle Cradle, SAE J1445 Standard                                 |

## Embedded OS

| Part Number | Description           |
|-------------|-----------------------|
| 2070012562  | XPE WES 2009 OS Image |
| 2070012563  | WES7 OS Image         |



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- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

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- Защита от снятия компонента с производства.



#### Как с нами связаться

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