

ARK-VH200

High Performance Intel® Atom™ Fanless Mobile DVR Solution



Features

- Intel® Atom™ D510 processor at 1.66 GHz
- 120/100 FPS D1 resolution video recorders
- 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
- Supports SUSIAccess and Embedded Software APIs
- IP40 rating

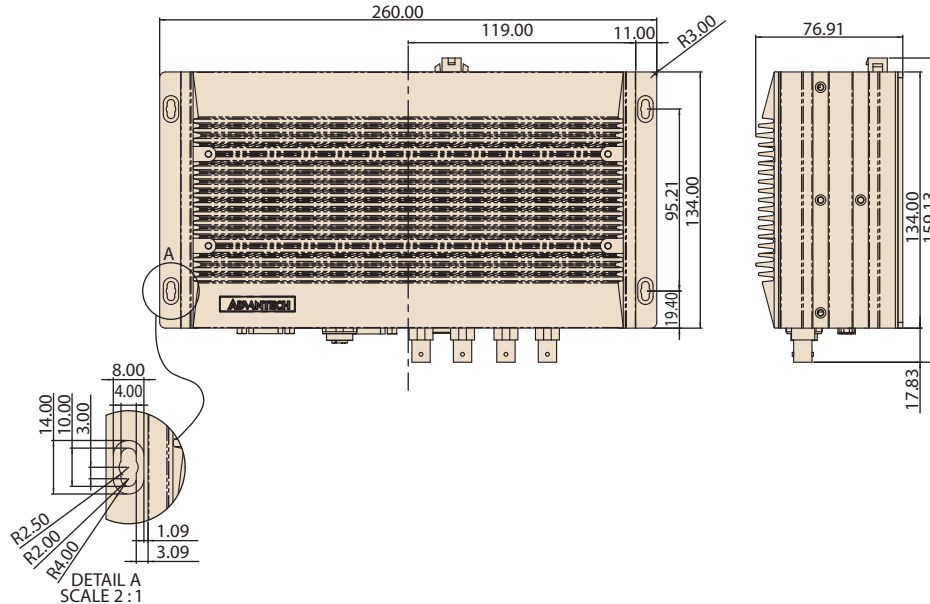


Specifications

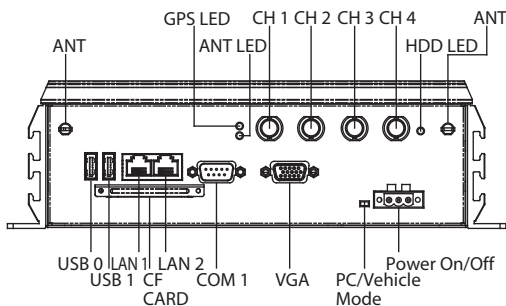
Processor System	CPU	Intel Atom Dual Core D510
	Max. speed	1.66 GHz
	System Chipset	Intel ICH8-M
	Front Side Bus	667 MHz
Memory	BIOS	AMI 16 Mbit Flash BIOS
	Technology	DDR2 667 MHz
	Max. Capacity	2 GB
Graphics	Socket	1 x 200-pin SO-DIMM
	Chipset	Embedded Gen 3.5G+GFX Core, Intel Gen 3.5 DX9, MPEG2 Decode in HW
	Interface	CRT Interface 18-bit LVDS interface
Ethernet	LAN 1	10/100/1000 Mbps Ethernet controller, support Wake On LAN
	LAN 2	10/100/1000 Mbps Ethernet controller, 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
Expansion	Watchdog timer	255-level timer interval, setup by software
	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
	Audio Input	4 x Ch Audio Inputs (Optional)
	Video Format	CIF, 2CIF, D1 (720 x 480)
	Video Frame	Total 120/100 FPS (NTSC/PAL) @ D1 resolution
	SDK Support	VC++, .NET/BCB/VB
Storage	HDD	Supports drive bay space for 1 x SATA 2.5" HDD (9.5 mm height only)
	SSD	Supports CompactFlash socket for type I/II CompactFlash disk
Software Support	Microsoft Windows	WES2009, WES7
	Linux	Fedora 9.0
Power Requirement	Power Type	AT/ATX
	Power Input Voltage	PC Mode: 9 V _{DC} ~ 32 V _{DC} VH Mode: 12 V battery (11 V _{DC} ~ 16 V _{DC}), 24V battery (22 V _{DC} ~ 32 V _{DC})
	Ignition	Supports ignition function
	PIC Firmware	Battery status check, and Off-delay support
	Minimum Power Inputs	36W
Mechanical	Power Adapter	AC to DC, DC19V/3.42A, 65W (Optional)
	Construction	Aluminum housing
	Mounting	Desk/wall-mounting
	Dimensions (W x H x D)	260 mm x 77 mm x 134 mm
Environment	Weight	3 kg (6.6 lb)
	Operating Temperature	With extend temperature peripherals CompactFlash disk: -20 ~ 60° C (-4 ~ 140° F) 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. 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 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	EN50155, E-Mark E13	

Dimensions

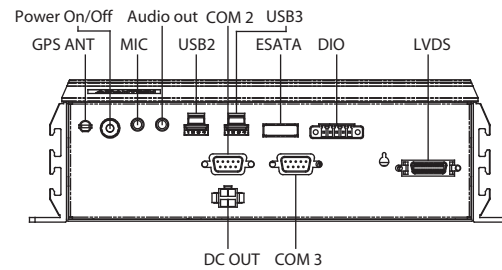
Unit: mm (inch)



Front Panel External I/O Mechanical Layout/Drawing



Rear Panel External I/O Mechanical Layout/Drawing



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

Ordering Information

Part Number	Description
ARK-VH200A-D5A1E	Intel Atom D510 1.6 GHz, w/2 x GbE, 4 x USB 2.0, 3 x COM, 2 x Mini PCIe, GPS, 4 x BNC, 4 x GPIO, Audio

Embedded OS

Part Number	Description
2070009844	XPE WES 2009 V4.0 ENG
2070009845	XPE WES 2009 V 4.0 MUI 24
2070011655	WES7E V5.1.4 ENG/SPN