

# ARK-20

## Intel® Atom™ Dual Core D2550 with Multiple I/Os Fanless Box PC



### Features

- Intel® Atom™ Dual Core D2550 1.86 GHz, 2 GB DDR3 memory built-in
- VGA and HDMI dual independent display, supports DirectX 9
- Mini PCIe expansion with SIM holder for communication module, i.e. HSDPA, WLAN
- Supports up to 2 Intel GbE, 6 x USB 2.0 and 4 x COMs ports
- 1 x 500GB 2.5" SATA HDD built-in
- Supports iManager, SUSIAccess and Embedded Software APIs



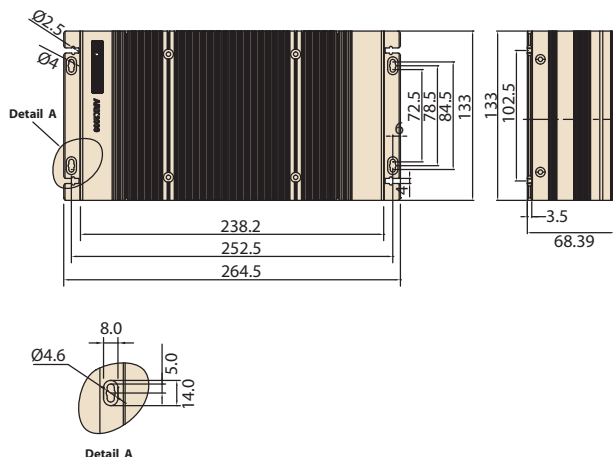
SUSIAccess iManager



### Specifications

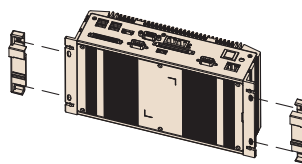
		ARK-20-S8A1E
Processor System	CPU	Intel Atom D2550
	Frequency	1.86 GHz (Dual Core)
	L2 Cache	1 MB
	System Chipset	Intel Atom D2550 + Intel NM10
	BIOS	AMI EFI 16Mbit
Memory	Technology	2 GB memory built-in
Graphics	Chipset	Intel Atom D2550
	Graphic Engine	DirectX 9 and OpenGL3.0 support Hardware decode H/W acceleration: MPEG2 H/W Decode/Acceleration: H.264/VC1/WMV9
	VGA	Up to 1920 x 1200
	HDMI	Supports 1920 x 1200, Max data rate: up to 1.65 Gb/s, Supports HDMI v1.3 Up to 1080p support
	Dual Display	Yes, VGA + HDMI
Ethernet	LAN1	10/100/1000 Mbps Intel 82583V GbE, support Wake On Lan
	LAN2	10/100/1000 Mbps Intel 82583V GbE, support Wake On Lan
Audio	Interface	Realtek ALC892, High Definition Audio. Line-out, Mic-in, Line-in
IO Interface	Serial Ports	3 x RS-232 ports, 1 x RS-232/422/485 port with auto flow control
	USB Interface	6 x USB ports, USB 2.0 Compliant
Other	Digital IO	8-bits
	Watchdog timer	255 levels timer interval, setup by software
Expansion	Mini PCIe	1 x full size Mini PCIe with SIM holder
Storage	HDD	500 GB 2.5" HDD built-in
	SSD	Supports one external CFast socket
Software Support	Microsoft Windows	Windows 7, Windows 7 Embedded (XP Professional & XP Embedded support by project)
	Linux	buntu v12.04
Power Requirement	Power Type	AT/ATX
	Power Input Voltage	12 ~ 24 V <sub>DC</sub>
	Minimum Power Input	12 V ~ 24 V, 3.0 A ~ 1.5 A
	Power Adapter	AC to DC, DC19 V/3.42 A, 65 W
Power Consumption	Typical	8.9 Watt (with Intel Atom D2550 at 1.8 GHz)
	Max.	11 Watt (with Intel Atom D2550 at 1.8 GHz)
Mechanical	Construction	Aluminum housing
	Mounting	Din-Rail mounting, Desk/wall-mounting, VESA mounting
	Dimensions (W x H x D)	264.5 x 69.2 x 133.0 mm (10.41" x 2.72" x 5.24")
	Weight	2.3 kg (5.07 lb)
Environment	Operating Temperature	With 2.5-inch hard disk 0 ~ 45° C (32 ~ 112° F) 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 SSD: 5 Grms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 hr/axis.
	Shock During Operation	With SSD: 50 G, IEC 60068-2-27, half sine, 11 ms duration
	EMC	CE/FCC Class A, CCC, BSMI
	Safety Certifications	UL, CCC, BSMI

## Dimensions

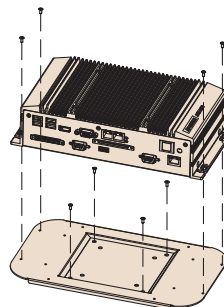


### DIN Rail

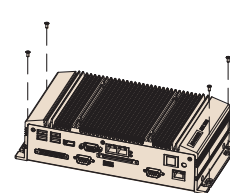
Unit: mm



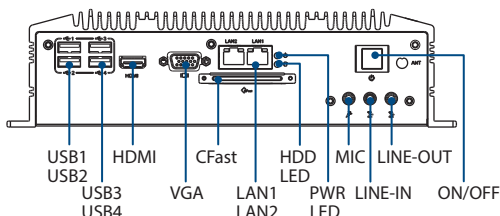
### VESA mount



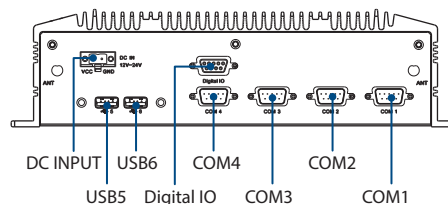
### Wall mount



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



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



## Ordering Information

Part No.	CPU	VGA	HDMI/DP	GbE	USB 2.0	RS-232	RS-232/422/485	DIO	Audio	Full-size MiniPCle	SIM	CFast	2.5" SATA II HDD Bay	Power Input	Operating Temp.
ARK-20-S8A1E	Intel Atom D2550 1.86 GHz	Yes	Yes	2	6	3	1	8-bits	Lin-out, Line-in, MIC	1	1	1	1	DC 12V-24V 2-pin phoenix head	-20 ~ 60° C

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

## Packing List

Part Number	Description
ARK-20-S8A1E	1 x ARK-20 Unit
-	1 x Utility CD
-	1 x User Manual (Simplified Chinese)
-	1 x China RoHS
1700020143	1 x Cable for RS-422/485 mode of COM2
1757003659	AC-to-DC Adapter, DC19 V/3.42 A 65 W, with Phoenix Power Plug, 0 ~ 40° C for Home and Office Use

## Optional Items

Part Number	Description
1700001947	Power cable 2-pin 180 cm, USA type (For adapter 1757003659)
1700001948	Power cable 2-pin 180 cm, Europe type (For adapter 1757003659)
1700001949	Power cable 2-pin 180 cm, UK type (For adapter 1757003659)
1700002141	Power cable 2-pin 180 cm, PSE type (For adapter 1757003659)
AMK-V004E	VESA mounting bracket
AMK-V009E	DIN-rail mounting kit for ARK-2000 series

## Embedded OS

Part Number	Description
TBD	Image WES7E SP1 x32 ENG/GER/JPN/CT