

# ARK-2120F

## Intel® Atom™ Dual Core D2550 with 3 GbE, 6 COM & Wide Range Power Fanless Box PC



### Features

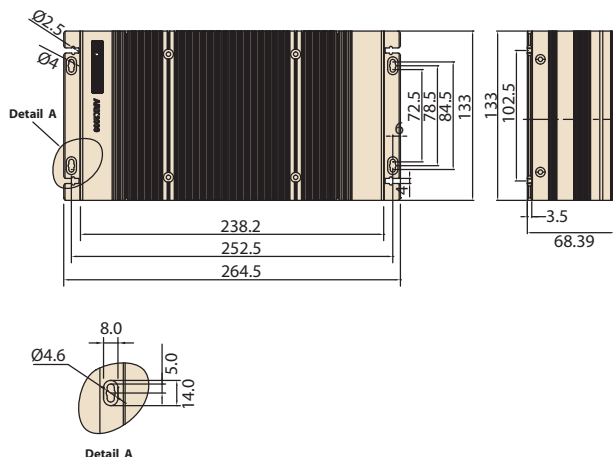
- Intel® Atom™ Dual Core D2550 1.86 GHz, DDR3 memory supports up to 4 GB
- VGA, HDMI, 48-bit LVDS, support dual independent display and DirectX 9
- Mini PCIe expansion with SIM holder for communication module, i.e. HSDPA, WLAN
- Supports up to 3 x GbE, 5 x USB 2.0 and 6 x COMs ports
- Supports external CFast socket and 1 x 2.5" SATA HDD Bay
- Supports 12 ~ 24V wide range DC input
- Lockable DC jack design
- Supports iManager, SUSIAccess and Embedded Software APIs



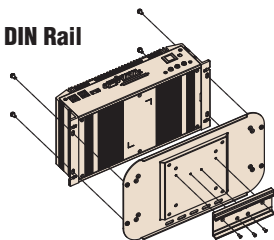
### Specifications

		ARK-2120F-S8A1E
Processor System	CPU	Intel Atom D2550
	Frequency	1.86 GHz (Dual Core)
	L2 Cache	1MB
	System Chipset	D2550 + Intel NM10
	BIOS	AMI EFI 16Mbit
Memory	Technology	DDR3 1066 MHz (D2550)
	Max. Capacity	4 GB
	Socket	1 x 204-pin SO-DIMM
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
	LVDS	Supports 48-bit LVDS, up to 2560 x 1600 (D2550)
	Dual Display	Yes, (VGA + HDMI, VGA + LVDS, HDMI + LVDS)
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
	LAN3	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	2 x RS-232 ports, 4 x RS-232/422/485 port with auto flow control (by BIOS setting)
	USB Interface	5 x USB ports, USB 2.0 Compliant
Other	Digital IO	8-bit
	Watchdog Timer	255 levels timer interval, setup by software
Expansion	Mini PCIe	1 x full size Mini PCIe with SIM holder
Storage	HDD	Supports one SATA 2.5" SATA HDD Bay (Compatible with 12.5mm height HDD) (Max. Data Transfer Rate 300 MB/s)
	SSD	Supports one external CFast socket
Software Support	Microsoft Windows	Windows 7 32bit, Windows 7 Embedded 32bit (XP Professional & XP Embedded support by project)
Power Requirement	Power Type	AT/ATX
	Power Input Voltage	12 V <sub>DC</sub> ~ 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/4.73A, 90 W (Optional)
Power Consumption	Typical	9.2 Watt (with Intel Atom D2550 at 1.8 GHz)
	Max.	11.59 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)	264.50 x 68.39 x 133.0 mm (10.41" x 2.69" x 5.24")
	Weight	2.5 kg (5.51 lb)
Environment	Operating Temperature	With extended temperature peripherals: -20 ~ 60° C (-4 ~ 140° F) with air flow With 2.5-inch hard disk 0 ~ 45° C (32 ~ 112° F) with 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

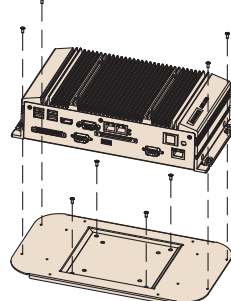


DIN Rail

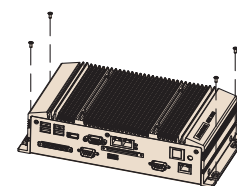


Unit: mm

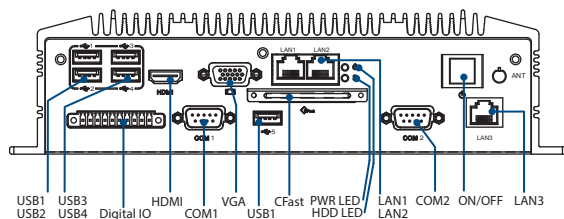
VESA mount



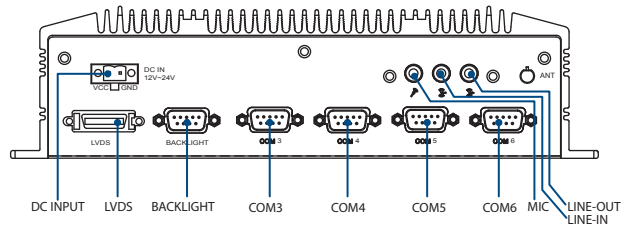
Wall mount



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



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



## Ordering Information

Part No.	CPU	VGA	HDMI/DP	LVDS	GbE	USB 2.0	RS-232	RS-232/422/485	DIO	Audio	Full-size MiniPCIe	SIM	CFast	2.5" SATA II HDD Bay	Power Input	Operating Temp.
ARK-2120F-S8A1E	Intel Atom D2550 1.86 GHz	Yes	Yes	48-bits	3	5	2	4	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
-	1 x ARK-2120 Unit
-	1 x Utility CD
-	1 x User Manual (Simplified Chinese)
-	1 x China RoHS
1700009001	1 x 2-pin Phoenix to DC-Jack power cable

## Optional Items

Part Number	Description
XARK-9NA0904747	AC-to-DC Adapter, DC19 V/4.73 A 90 W, with Phoenix Power Plug
1700001524	Power cable 3-pin 180cm, USA type
1702002605	Power cable 3-pin 180cm, EU type
1702031801	Power cable 3-pin 180cm, UK type
AMK-V004E	VESA mounting bracket
AMK-R004E	DIN-rail mounting kit for ARK-2000 series

## Embedded OS

Part Number	Description
2070011953	Image WES7E SP1 x32 ENG/GER/JPN/CT