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# ARK-2120L

## Intel® Atom™ Dual Core N2600/D2550 with Multiple I/Os Fanless Box PC



### Features

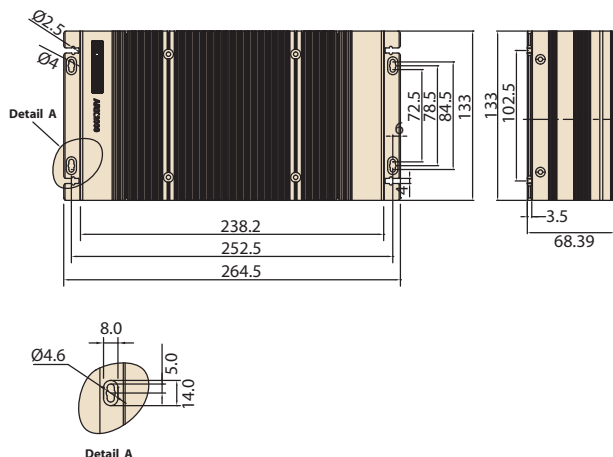
- Intel® Atom™ Dual Core N2600 1.6 GHz/D2550 1.86 GHz, DDR3 memory supports up to 4 GB
- VGA and HDMI dual independent display, supports DirectX 9
- Mini PCIe expansion with SIM holder for communication module, i.e. HSDPA, WLAN
- Supports up to 2 Intel GbE, 6 x USB 2.0 and 4 x COMs ports
- Supports external CFast socket and 1 x 2.5" SATA HDD Bay
- Lockable DC jack design
- Supports iManager, SUSIAccess and Embedded Software APIs



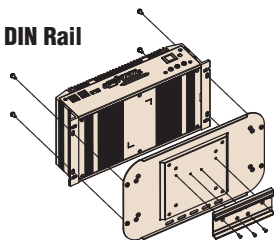
### Specifications

		ARK-2120L-S6A1E	ARK-2120L-S8A1E
Processor System	CPU	Intel Atom N2600	Intel Atom D2550
	Frequency	1.6 GHz (Dual Core)	1.86 GHz (Dual Core)
	L2 Cache	1 MB	1MB
	System Chipset	Intel Atom N2600/D2550 + Intel NM10	
	BIOS	AMI EFI 16Mbit	
Memory	Technology	DDR3 1066 MHz (D2550), DDR3 800 MHz (N2600)	
	Max. Capacity	4 GB	
	Socket	1 x 204-pin SO-DIMM	
Graphics	Chipset	Intel Atom N2600/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	Supports one SATA 2.5" 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> , ± 10%	
	Minimum Power Input	12 V, 1.5 A	
	Power Adapter	AC to DC, DC12 V/3 A, 36 W (Optional)	
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 extended temperature peripherals: -20 ~ 60° C (-4 ~ 140° F) with 0.7m/s air flow 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

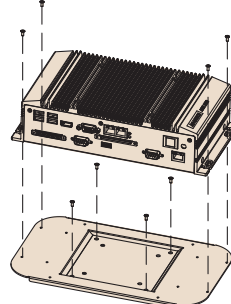


### DIN Rail

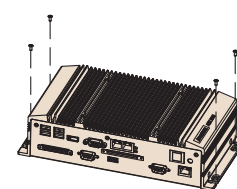


Unit: mm

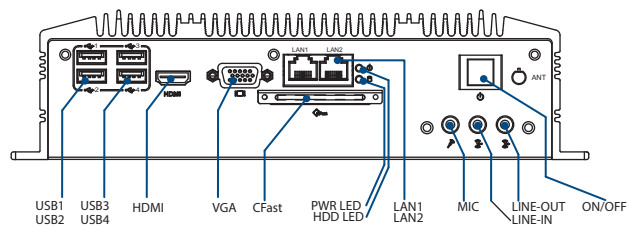
### VESA mount



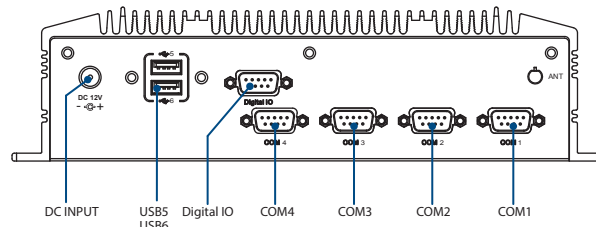
### Wall mount



## 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 MiniPCIe	SIM	CFast	2.5" SATA II HDD Bay	Power Input	Operating Temp.
ARK-2120L-S6A1E	Intel Atom N2600 1.6 GHz	Yes	Yes	2	6	3	1	8-bits	Lin-out, Line-in, MIC	1	1	1	1	DC 12V Lockable DC Jack	-20 ~ 60° C
ARK-2120L-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 Lockable DC Jack	-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
1700020143	1 x Cable for RS-422/485 mode of COM2

## Embedded OS

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

## Optional Items

Part Number	Description
96PSA-A36W12W7	AC-to-DC Adapter, DC 12V/3A 36W, 0 ~ 40° C for Home and Office Use
96PSA-A60W12W6	AC-to-DC Adapter, DC 12V/5A 60W, -20 ~ +70° C
1700001524	Power cable 3-pin 180cm, USA type, for 96PSA-A36W12W7
170203180A	Power cable 3-pin 180cm, UK type, for 96PSA-A36W12W7
170203183C	Power cable 3-pin 180cm, Europe type for 96PSA-A36W12W7
1702002600	Power cable 3-pin 180cm, USA type, for 96PSA-A60W12W6
1702002605	Power cable 3-pin 180cm, EU type, for 96PSA-A60W12W6
1702031801	Power cable 3-pin 180cm, UK type, for 96PSA-A60W12W6
1700008921	Power cable 3-pin 180cm, PSE for 96PSA-A36W12W7
AMK-V004E	VESA mounting kit
AMK-R004E	DIN-rail mounting kit