

ARK-3360F

Intel® Atom™ N450/D510 with 3 GbE, Isolated COM & wide range power Fanless Box PC



susIAccess



FCC



Features

- Intel® Atom™ N450/D510 1.66 GHz Embedded Box PC
- Mini PCIe and Mini PCI expansion for communication module, i.e. HSDPA, WLAN
- Supports 12 ~ 24 V wide range DC input
- Supports up to 3 x GbE, 6 x USB 2.0 and 6 x COMs ports
- Serial ports support RS-485 auto flow control and isolation (up to 7.5Kv)
- Easy integration, easy maintenance, and wide input voltage range
- Supports SUSIAccess and Embedded Software APIs

Specifications

		ARK-3360F-N4A1E	ARK-3360F-D5A1E
Processor System	CPU	Intel Atom N450 (Single Core)	Intel Atom D510 (Dual Core)
	Frequency	1.66GHz	1.66GHz
	L2 Cache	512KB	1MB
	System Chipset	Intel ICH8-M	
	Front Side Bus	667 MHz	
	BIOS	AMI 16 Mbit Flash BIOS	
Memory	Technology	DDR2 667 MHz	
	Max. Capacity	2 GB	
	Socket	1 x 200-pin SO-DIMM	
Graphics	Chipset	Intel 3.5 Gen Integrated Graphic Engine	
	Interface	VGA: N450 up to 1400 x 1050, D510 up to 2048 x 1536 18-bit LVDS interface (Optional)	
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	
	LAN 3	10/100/1000 Mbps Intel 82541PI GbE, support Wake On LAN	
Audio	Amplifier	-	
	Interface	Line-in, Line-out, Mic-in	
IO interface	Serial Interface	1 x RS-232, 3 x RS-232/422/485, 2 x RS-422/485 with 7.5Kv isolation protection & auto flow control	
	USB Interface	6 x USB ports, Compliant with USB 2.0	
Other	Digital I/O	8-bits	
	Watchdog timer	255-level timer interval, setup by software	
Expansion	Mini PCI	1 x Mini PCI	
	Mini PCIe	1 x full-size Mini PCIe	
Storage	HDD	Supports 1 x SATA 2.5" HDD Bay (support 9.5 mm height only)	
	SSD	Supports CompactFlash socket for type I/II CompactFlash disk	
Software Support	Microsoft Windows	Windows 7, XP Professional, XP Embedded, WinCE 6.0	
	Linux	Ubuntu 10.04	
Power Requirement	Power Type	AT/ATX	
	Power Input Voltage	12 V _{DC} ~ 24 V _{DC}	
	Minimum Power Input	12V-24 V, 3.0A-1.5A	
	Power Adapter	AC to DC, DC19 V/3.42 A, 65 W(Optional)	
Power Consumption	Typical	12.12 W (with Intel Atom D510 at 1.66 GHz)	
	Max.	14.96 W (with Intel Atom D510 at 1.66 GHz)	
Mechanical	Construction	Aluminum housing	
	Mounting	DIN-rail mounting, Desk/wall-mounting	
	Dimensions (W x H x D)	264.5 mm x 69.2 mm x 137.25 mm (10.41" x 2.72" x 5.4")	
	Weight	2 kg (4.4 lb)	
Environment	Operating Temperature	With extended temperature peripherals: -20 ~ 60° C (32 ~ 140° F), with 0.7m/s air flow With 2.5-inch hard disk 0 to 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 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, CCC, BSMI, KC	
	Safety Certifications	UL, CCC, BSMI, KC	

Technical drawing of the ADVANTECH 15.6 inch laptop showing front, side, and top views with dimensions in mm and inches.

Front View Dimensions:

- Overall Width: 313.8 [1.235]
- Overall Height: 137.25 [5.404]
- Bottom Panel Width: 69.00 [2.717]
- Bottom Panel Height: 69.20 [2.724]
- Top Panel Width: 14.00 [0.551]
- Top Panel Height: 10.00 [0.394]
- Bottom Panel Thickness: 8.00 [0.315]
- Bottom Panel Width (inner): 4.00 [0.158]
- Bottom Panel Height (inner): 5.00 [0.197]
- Bottom Panel Width (outer): 4.00 [0.158]
- Bottom Panel Height (outer): 8.00 [0.315]
- Bottom Panel Width (inner, bottom): 4.00 [0.158]
- Bottom Panel Height (inner, bottom): 10.00 [0.394]
- Bottom Panel Width (outer, bottom): 14.00 [0.552]

Side View Dimensions:

- Overall Width: 252.50 [9.941]
- Overall Height: 137.25 [5.404]
- Bottom Panel Width: 119.51 [4.705]
- Bottom Panel Height: 125.76 [4.951]
- Bottom Panel Thickness: 8.00 [0.315]
- Bottom Panel Width (inner): 4.00 [0.158]
- Bottom Panel Height (inner): 5.00 [0.197]
- Bottom Panel Width (outer): 4.00 [0.158]
- Bottom Panel Height (outer): 8.00 [0.315]
- Bottom Panel Width (inner, bottom): 4.00 [0.158]
- Bottom Panel Height (inner, bottom): 10.00 [0.394]
- Bottom Panel Width (outer, bottom): 14.00 [0.552]

Top View Dimensions:

- Overall Width: 313.8 [1.235]
- Overall Height: 137.25 [5.404]
- Bottom Panel Width: 69.00 [2.717]
- Bottom Panel Height: 69.20 [2.724]
- Top Panel Width: 14.00 [0.551]
- Top Panel Height: 10.00 [0.394]
- Bottom Panel Thickness: 8.00 [0.315]
- Bottom Panel Width (inner): 4.00 [0.158]
- Bottom Panel Height (inner): 5.00 [0.197]
- Bottom Panel Width (outer): 4.00 [0.158]
- Bottom Panel Height (outer): 8.00 [0.315]
- Bottom Panel Width (inner, bottom): 4.00 [0.158]
- Bottom Panel Height (inner, bottom): 10.00 [0.394]
- Bottom Panel Width (outer, bottom): 14.00 [0.552]

The diagram shows the rear panel of the 1000 Series Embedded PC with the following ports and connectors labeled:

- COM2, COM3, COM4, COM5, COM6:** Five D-subminiature connectors for serial communication, arranged in a horizontal row at the top.
- COM1:** A D-subminiature connector for serial communication, located below the COM2-6 row.
- LAN1, LAN2:** Two RJ-45 Ethernet ports located to the left of COM1.
- CF CARD:** A CompactFlash card slot located below the LAN ports.
- USB1, USB2:** Two USB Type-A ports located to the left of the CF card slot.
- VGA:** A 15-pin D-subminiature connector for video output, located to the right of COM1.
- Power Input:** A DC power jack with a polarity switch, labeled with "VDD", "GND", and "500mA 12V-50V".

Part No.	CPU	VGA	GbE	USB 2.0	RS-232	RS-232/422/485	RS-422/485	DIO	Audio	Full-size MiniPCIe	CF	2.5" SATAII HDD Bay	Power Input	Operation Temp.
ARK-3360F-N4A1E	Intel Atom N450 1.66 GHz	Yes	3	6	1	3	2 (with 7.5KV isolation)	8-bits	Lin-out, Lin-in, MIC	1	1	1	DC 12V Lockable DC Jack	-20 ~ 60° C
ARK-3360F-D5A1E	Intel Atom D510 1.66 GHz	Yes	3	6	1	3	2 (with 7.5KV isolation)	8-bits	Lin-out, Lin-in, MIC	1	1	1	DC 12V Lockable DC Jack	-20 ~ 60° C

Part Number	Description
-	1 x ARK-3360 Unit
-	1 x Driver/Utility CD/Manual
-	1 x User Manual (Simplified Chinese)
1700009001	1 x 2-pin Phoenix DC power connector

Part Number	Description
2070009030	XPE WES2009 V4.0 ENG
2070009031	XPE WES2009 V4.0 MUI24
2070009835	WES7F V5.0 ENG

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