![Chipsmall logo]

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

ARK-3403

Intel® Atom™ D510/D525 Fanless Embedded Box PC with PCI/PCIe Expansion and Dual SATA HDDs
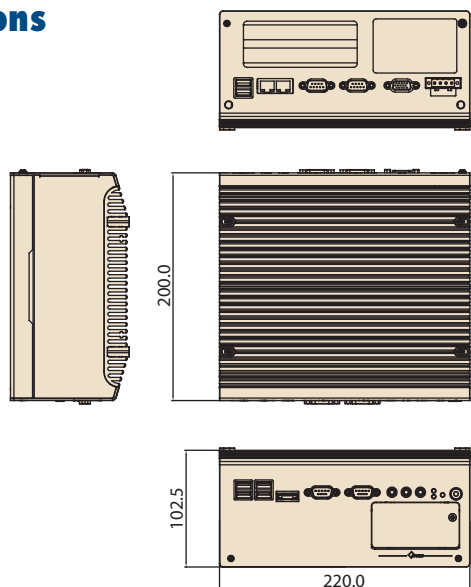
Features

- Intel® Atom™ D510/D525 dual core up to 1.8 GHz Fanless Embedded Box PC
- Supports VGA and LVDS dual display and support for widescreens with high resolution
- Supports 2 GbE, eSATA, 6 USB 2.0, audio and 4 COM ports
- Two internal 2.5" SATA HDD drive bays
- Supports 2 x Mini PCIe, 2 x PCI/PCIe expansion interfaces for diverse applications
- Easy integration, easy maintenance, and wide input voltage range
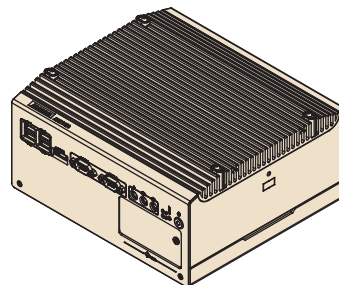- Supports SUSIAccess and Embedded Software APIs

Specifications

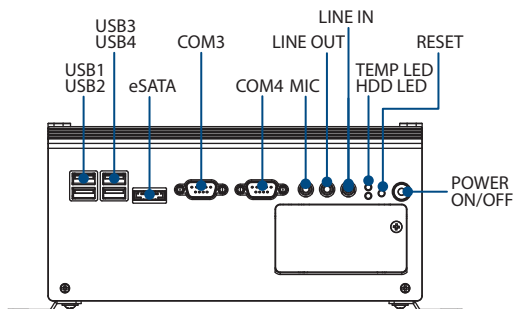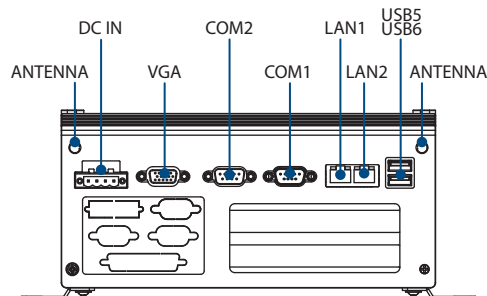|			
Processor System	CPU	Intel Atom D510 processor	Intel Atom D525 processor
	Max. speed	1.66 GHz	1.8 GHz
	System Chipset	Intel ICH8-M	
	BIOS	AMI 16 Mbit SPI BIOS	
Memory	Technology	DDR2 667 MHz	
	Max. Capacity	2 GB	
	Socket	1 x 200-pin SO-DIMM	
Graphics	Chipset	Intel 3.5 Gen Integrated Graphic Engine + GFX core	
	Interface	VGA: up to 1920 x 1200 18-bit LVDS interface(Optional)	
Ethernet	LAN 1	10/100/1000 Mbps Intel 82567V Ethernet controller, support Wake on LAN	
	LAN 2	10/100/1000 Mbps Intel 82583V Ethernet controller, support Wake on LAN	
Audio	Amplifier	-	
	Interface	Line-out, Mic-in, Line-in	
IO interface	Serial Interface	4 COM, 2 x RS-232 and 2 x RS-232/422/485 port , RS-485 w/auto flow control, 2 extra RS-232 ports (optional)	
	USB Interface	6 x USB ports, Compliant with USB 2.0	
	Parallel Port	Supports D-sub 25-pin connector (optional)	
	Digital I/O	Support 16-bit digital IO (optional)	
Other	Thermal Alarm	Yellow LED lighting	
	Watchdog Timer	255-level timer interval, setup by software	
Expansion	PCI/PCIe Slot	1 Slot PCI and 1 Slot PCIe x1 (default); 2 Slots PCIe x1 (optional); 2 Slots PCI (optional) Supports maximum dimension of 167 mm (width) x 106 mm (length) for expansion PC board	
	Mini PCI/Mini PCIe	2 x Mini PCIe	
Storage	HDD	Supports drive bay space for 2 x SATA 2.5" HDD (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	Fedora 12	
Power Requirement	Power Type	AT/ATX	
	Power Input Voltage	12 V_{DC} ~ 24 V_{DC}	
	Minimum Power Input	12 V_{DC} ~ V_{DC} @ 4.6 A ~ 2.4 A	
	Power Adapter	AC to DC, DC19V/7.89A, 150W(Optional)	
Power Consumption	Typical	13 W (with Intel Atom D510 1.66 GHz and w/o expansion)	
	Max.	15 W (with Intel Atom D510 1.66 GHz and w/o expansion)	
Mechanical	Construction	Aluminum housing	
	Mounting	Desk/wall-mounting	
	Dimensions (W x H x D)	220 mm x 102.5 mm x 200 mm (8.66" x 4.04" x 7.87")	
	Weight	4 kg (8.8 lb)	
Environment	Operating Temperature	With extended temperature peripherals CompactFlash disk: -10 ~ 55° C With extended temperature peripherals 2.5-inch hard disk -10 to 45° C, 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, CCC, BSMI	
	Safety Certifications	UL, CCC, BSMI	

ADVANTECH | **Embedded Box PCs**

All product specifications are subject to change without notice

Dimensions

Unit: mm

200.0

102.5

220.0

Front Panel External I/O Mechanical Layout/Drawing

USB1
USB2
USB3
USB4
eSATA
COM3
COM4 MIC
LINE OUT
LINE IN
TEMP LED
HDD LED
RESET
POWER
ON/OFF

Rear Panel External I/O Mechanical Layout/Drawing

ANTENNA
DC IN
VGA
COM2
COM1
LAN1
LAN2
USB5
USB6
ANTENNA

Packing List

Part Number	Description
-	1 x ARK-3403 unit
-	1 x Driver/Utility CD/Manual
1960014487T00C	2 x desk/wall mount plate
1652003234	1 x 4-pin phoenix DC power connector

Ordering Information

Part Number	Description
ARK-3403-D5A1E	Intel Atom D510 1.66 GHz, w/VGA, 2 x Giga LAN, 6 x USB 2.0, 4 x COM, 2 Mini PCIe, Audio
ARK-3403-D6A1E	Intel Atom D525 1.8 GHz, w/VGA, 2 x GLAN, 6 x USB2.0 4 x COM, 2 Mini PCIe, audio

Optional Items

Part Number	Description
1757002161	AC-to-DC adapter, DC19 V/7.89A 150 W, with phoenix power plug, 0 ~ 40° C for home and office use
1702002600	Power cable 3-pin 180 cm, USA type
1702002605	Power cable 3-pin 180 cm, EU type
1702031801	Power cable 3-pin 180 cm, UK type
1700008871	COM Cable D-SUB 9P(M)/IDE#2 10P-2.0 20 cm
1700018187	LPT cable 2 x 13p-2.0/D-SUB 25P(F) 20 cm
1700018490	LVDS cable
1700009407	DIO cable D-SUB 25P(M)/2*10P-1.25 15cm
1700009396	LVDS power cable
AMO-R010E	2 slot riser card, 1 x PCIe x1 + 1 x PCI
AMO-R013E	2 slot riser card, 2 x PCI
AMO-R009E	2 slot riser card, 2 x PCIe x1

Embedded OS

Part Number	Description
2070009923	WinCE 6.0 ARK-3403 ENG
2070009030	XPE WES2009 Luna Pier V4.0 ENG
2070010797	WES7E SPI for ARK-3403 ENG 32 bit