ARK-1503

Intel® Atom™ D525/D425 Fanless Embedded IPC Integrated Display Interface



Features

- Extremely compact, sealed construction with fanless operation, supports Intel® Atom® D525/D425 up to 1.8 GHz
- Supports integrated LVDS interface, with LVDS / 2*USB / Rx / Tx signal (compliant with ITM-5115)
- Supports 2 Giga LAN and 4 USB 2.0 ports
- Supports 1 x RS-232, 1 x RS-232/422/485 with Auto-flow control
- Built-in 1 x Mini PCIe expansion slot for communication module, like WLAN
- Supports external CF socket
- Supports 2.5" SATA HDD and easy to maintain
- DC 12V power input
- IP40

Windows Embedded

Specifications

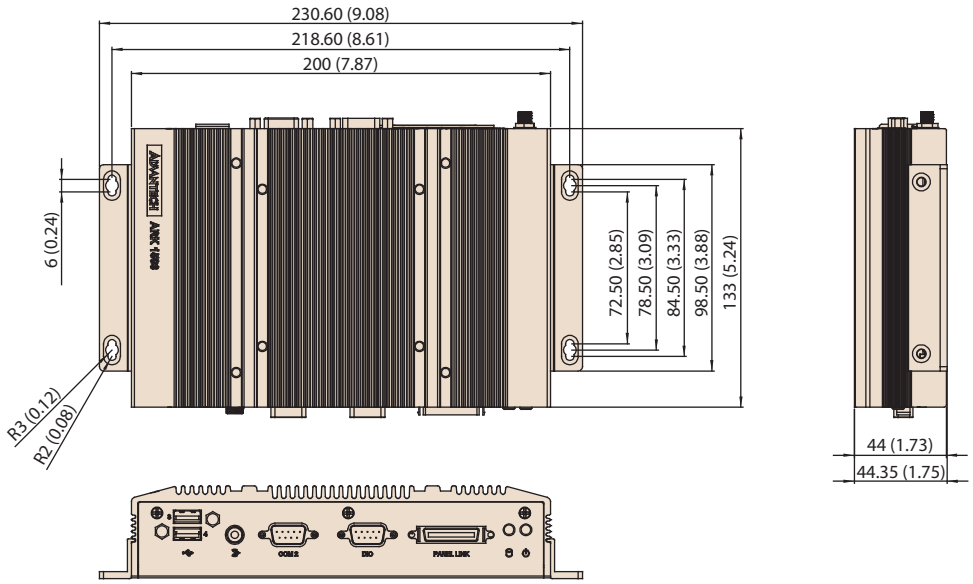
		ARK-1503F-D6A1E/ARK-1503F-D4A1E	ARK-1503P-D6A1E
Processor System	CPU	Intel Atom D525/D425	
	Max. Speed	1.8 GHz	
	System Chipset	ICH8M	
	BIOS	AMI 16 MB SPI BIOS	
Memory	Technology	Single channel DDR3 1066/1333 MHz	
	Max. Capacity	D525: Up to 4G SODIMM; D425: Up to 2G SODIMM	
	Socket	1 x 204-pin SODIMM	
Graphics	Chipset	Intel Gen 3.5 DX9, MPEG2 Decode in HW	
	VRAM	Optimized Shared Memory Architecture up to 224 MB system memory	
	Interface	VGA: Supports up to 2048 x 1536 @ 60 Hz LVDS: Single channel 24-bit LVDS up to WXGA 1366 x 768	
	Dual Display	VGA + LVDS	
Ethernet	LAN1	10/100/1000 Mbps Intel 82567V Giga Ethernet Controller, support Wake On LAN	
	LAN2	10/100/1000 Mbps Intel 82583V Giga Ethernet Controller, support Wake On LAN	
Audio	Interfaces	Line-out	-
IO Interface	Serial Ports	1 x RS-232, 1 x RS-232/422/485 port, support Auto-flow control	1 x RS-232
	USB Interface	4 x USB ports, USB 2.0 Compliant	2 x USB ports, USB 2.0 Compliant
	Digital I/O	8-bit programmable DIO	-
	Watchdog timer	255-level timer interval, setup by software	
	Integrated LVDS Interface	DB36 with LVDS, 2 x USB, Rx/Tx and backlight control	Golden Finger Display Interface
Storage	HDD	Supports one drive bays space for SATA 2.5" HDD (support 9.5 mm height only)	
	SSD	Supports one external CompactFlash socket for type I/II CompactFlash disk	
Expansion	Mini PCIe	1 x Mini PCIe	
Software Support	Microsoft Windows	Windows 7, XP Professional, XP Embedded	
Power Requirement	Power Type	AT/ATX	
	Power Input Voltage	12 V_{DC}	
	Minimum Power Input	DC 12V @ 3A (without supplying power to panel)	
	Power Adapter	AC-to-DC, 60W DC12V/5A	
Power Consumption	Typical	12 W (without supplying power to panel)	
	Max.	17 W (without supplying power to panel)	
Mechanical	Construction	Aluminum housing	
	Mounting	Desk/wall-mounting	
	Dimensions (W x H x D)	230.6 x 133.0 x 44.4 mm (9.08" x 5.24" x 1.75")	
	Weight	1.9 kg (4.18 lbs)	
Environment	Operating Temperature	With extend temperature peripherals : -20 ~ 60° C, w/ industrial HDD: 0-45° C	
	Storage Temperature	- 40 ~ 85° C (-40 ~ 185° F)	
	Relative Humidity	95% @ 40° C (non-condensing)	
	Vibration Loading During Operation	With Compact Flash / 2.5" SATA SSD only: 5 Grms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 Oct./min, 1 hr/axis	
	Shock During Operation	With Compact Flash / 2.5" SATA SSD only: 50 G, IEC 60068-2-27, half sine, 11 ms duration	
	EMC	CE/FCC Class A, BSMI, CCC, KCC	
	Safety Certifications	UL, CCC, BSMI, KCC	

All product specifications are subject to change without notice

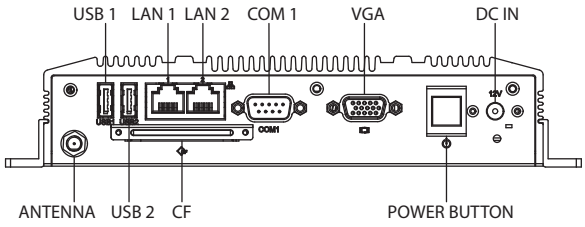
Last updated : 25-Apr-2011

Dimensions

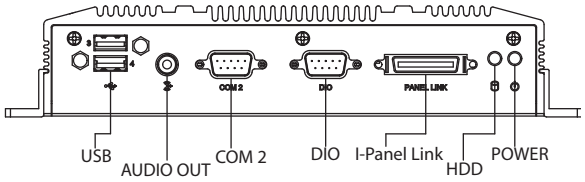
Unit: mm (inch)



Front Panel External I/O Mechanical Layout/Drawing



Rear Panel External I/O Mechanical Layout/Drawing



Packing List

Part Number	Description
-	1 x ARK-1503 Unit
-	1 x Driver/Utility CD/Manual
-	1 x Power bracket

Ordering Information

Part Number	Description
ARK-1503F-D6A1E	Intel Atom D525 1.8 GHz, with DB36 LVDS interface
ARK-1503F-D4A1E	Intel Atom D425 1.8 GHz, with DB36 LVDS interface
ARK-1503P-D6A1E	Intel Atom D525 1.8 GHz, with golden finger interface for ITM-5115R-PA1E

Optional Items

Part Number	Description
1757003062	AC-to-DC Adapter, DC 12V/5A 60W, with DC Jack 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, Europe type
1702031801	Power cable 3-pin 180 cm, UK type
1700000237	Power Cable 3-pin PSE Mark 180cm
WIFI-105E	802.11 b/g/n Mini-PCIe WLAN card
1700001943	Cable SMA/I-PEX 23CM for WLAN module
1750003222	802.11 b/g 5dBi Dipole Antenna for WLAN module
ITM-5115R-LA1E	15" XGA LED Industrial Monitor with I-Panel Link (Compliant with ARK-1503F)
ITM-5115R-PA1E	15" XGA LED Ind. T/S Monitor with golden finger (Compliant with ARK-1503P)

Embedded OS

Part Number	Description
2070010408	Image XPE WES2009 ARK-1503 V4.0 ENG
2070010409	Image XPE WES2009 ARK-1503 V4.0 24MUI
2070010410	Image WES7E ARK-1503 V5.0 ENG