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.

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Tel: +86-755-8981 8866 Fax: +86-755-8427 6832
Email & Skype: info@chipsmall.com Web: www.chipsmall.com
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

ARK-3500

3rd Gen. Intel® Core™ i3/ i5/ i7 with 2 Expansion slots and wide range power Fanless Box PC
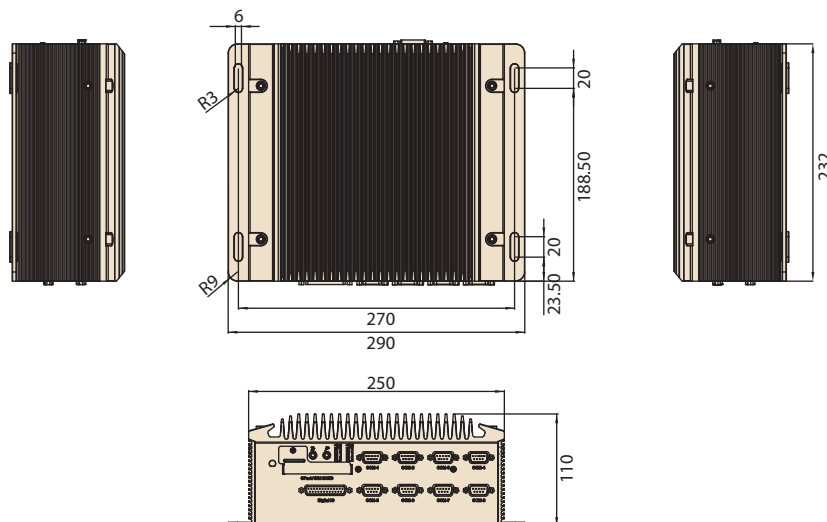
NEW

Features

- Supports Intel® Core™ i3/i5/i7 mobile processor(rPGA) + Intel QM77 PCH
- Triple independent display with 3rd gen Core i processor : DVI + HDMI + DisplayPort
- DDR3/DDR3L SO-DIMM memory support up to 16 GB
- 2 expansion slots with vary interface: PCI, PCIe x 1 & PCIe x 4
- 2 x miniPCIe slots with SIM card holders
- 9-34V wide range lockable DC jack design
- Versatile I/Os including 4 x high speed USB 3.0 and 8 x COM ports
- Flexible Storage Support including 2x mSATA, 1x CFast and 2x 2.5" SATA HDD/ SSD bays
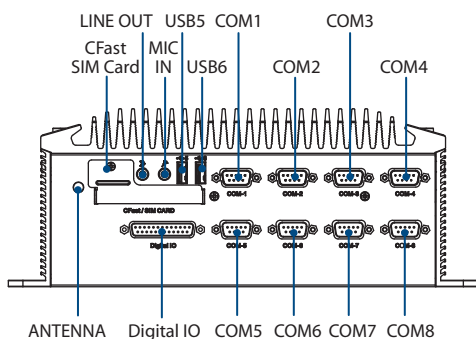- Supports iManager, SUSIAccess and Embedded Software APIs

Windows Embedded SUSIAccess iManager LISTED c UL us E180881 CE FCC RoHS COMPLIANT 2002/95/EC

Specifications

Processor System	CPU (rPGA)	Intel Core i7-3610QE	Intel Core i5-3610ME	Intel Core i3-3120ME	Celeron 1020E
	Frequency	2.3 GHz (Quad Core)	2.7 GHz (Dual Core)	2.4 GHz (Dual Core)	2.2 GHz (Dual Core)
	L3 Cache	6 MB	3 MB	3 MB	2 MB
	Watts	45W	35W	35W	35W
	System Chipset	Intel QM77			
	BIOS	AMI EFI 64Mbit			
Memory	Technology	DDR3/DDR3L 1600MHz			
	Max. Capacity	16 GB			
	Socket	2 x 204-pin SO-DIMM			
Graphics	Chipset	Intel QM77 Integrated GFX Gen 7			
	Graphic Engine	DirectX11, OpenGL 3.1, and Open CL 11; Hardware decode acceleration: AVC/H.264, MPEG-2, VC-1			
	CRT	VGA integrated in DVI-I port			
	DVI-I	1920 x 1200 @ 60 Hz			
	HDMI	Support HDMI 1.4, 1920 x 1200 @ 60 Hz			
	Display port	2560 x 1600 @ 60Hz (Video only, and only support on 3rd generation processor)			
	Dual Display	VGA+DVI, VGA+HDMI, VGA+DP, DVI+HDMI, DVI+DP, HDMI+DP			VGA+DVI, DVI+HDMI, VGA+HDMI
	Triple Display	DVI-D + HDMI + DisplayPort (Main display)			N/A
Ethernet	LAN1	10/100/1000 Mbps Intel 82579LM GbE, support Wake On Lan			
	LAN2	10/100/1000 Mbps Intel I-210IT GbE, support Wake On Lan			
Audio	Interface	Realtek ALC892, High Definition Audio, Line-out, Mic-in			
I/O Interface	Serial Port	4 x RS-232 ports, 4 x RS-232/422/485 port with auto flow control			
	USB	4 x USB 3.0 ports (USB1,2,3,4); 2 x USB 2.0 ports (USB5,6)			
	DIO	16 bit DIO			
Expansions	Mini PCIe	2 x Full-size Mini PCIe with SIM holder (Supports mSATA)			
	Add-on Card Slot	ARK-3500P-00A1E : 2 x PCI; Maximum card size: 110 mm (H) x 180 mm (L) ARK-3500F-00A1E : PCIe x 1 + PCIe x 4; Maximum card size: 110 mm (H) x 180 mm (L) Suggest maximum power consumption 10w for each slot			
Storage	HDD	Two 2.5" SATA HDD Bays with maximum device height 9.5mm, SATA III, Gen 3 Support (Max. Data Transfer Rate 600 MB/s), Support SATA RAID 0, 1			
	Solid State Disk	1 x CFast Card slot			
Software Support	Microsoft Windows	Windows 8 , Windows 7, XP Professional (32bit), XP Embedded (32bit)			
	Linux	Ubuntu 12.04			
Power Requirements	Power Type	AT/ATX			
	Power Input Voltage	9 ~ 34 V_{DC}			
	Power Adapter	AC to DC, DC19V / 6.32A, 120W (Optional)			
Power Consumption	Typical	19.2W	16.4W	14.8W	16.4W
	Max.	60W	36.5W	30W	31.8W
		Max. : test with 100% CPU loading and HDD R/W access only.			
Mechanical	Construction	Aluminum housing			
	Mounting	Desk/wall-mounting			
	Dimensions (W x H x D)	290 x 110 x 232mm (11.4" x 4.33" x 9.13")			
	Weight	4.8 kg			
Environment	Operating Temperature	with extended temp peripherals: -10 ~ 60° C with 0.7m/s air flow with HDD: 0 ~ 40° C with 0.7m/s air flow			
	Storage Temperature	-40 ~ 85° C			
	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	CB, UL, CCC, BSMI			

ADVANTECH **Fanless Embedded Box PCs**

Dimensions

Unit: mm

Front Panel External I/O Mechanical Layout/Drawing

LINE OUT USB5 COM1 COM3
CFast MIC COM2 COM4
SIM Card IN USB6
ANTENNA Digital IO COM5 COM6 COM7 COM8

Rear Panel External I/O Mechanical Layout/Drawing

HDD LED
THERMAL LED
RESET DVI-I USB1 USB2 LAN1 ANTENNA
POWER Display USB3 USB4 LAN2
ON/OFF Port HDMI
ANTENNA ANTENNA
DC IN 9-34V
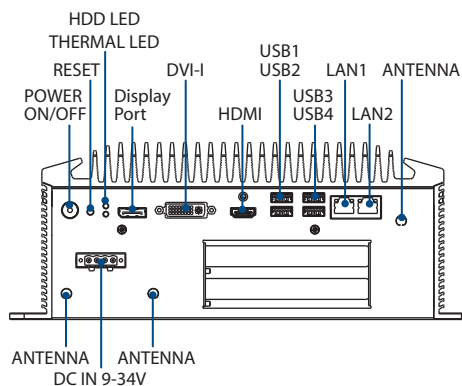
Ordering Information

Part No.	CPU	DDR3	DP	HDMI	DVI-I	RS-232/422/485	RS-232	USB 3.0	USB 2.0	MiniPCIe	SIM	DC input	Expansion
ARK-3500P-00A1E	PGA Socket Type	up to 16 GB	1	1	1	4	4	4	2	2	2	9 ~ 34 V	2 x PCI
ARK-3500F-00A1E	PGA Socket Type	up to 16 GB	1	1	1	4	4	4	2	2	2	9 ~ 34 V	1 x PCIe x 1 1 x PCIe x 4

Note: Memory, storage and operating system bundled by request.

Packing List

Part Number	Description
1654009744	DVI-I to VGA adaptor
968EMLSAP2	SUSI CD
-	User Manual (Simplified Chinese)
-	China RoHS for ARK-3500 Electronic Pollution 1st
1652003234	4 pin DC in terminal block
1930001241	HDD screws
2190000902	CARDBOARD-WARRANTY REV. A2

Optional Items

Part Number	Description
1757004523-01	AC-to-DC Adapter, DC 19V/6.32A 120W, 0~40° C for Home and Office Use
1757004529-01	AC-to-DC Adaptor, DC 19V/6.84A, 130W, -20 ~ 70° C
1702002600	Power cable 3-pin 180cm, USA type, for 1757004523-01 and 1757004529-01
1702031801	Power cable 3-pin 180cm, UK type, for 1757004523-01 and 1757004529-01
1702002605	Power cable 3-pin 180cm, EU type, for 1757004523-01 and 1757004529-01
1700000237	Power cable 3-pin 180cm, with PSE, for 1757004523-01
96MPI7M-2.3-6M9T	CORE 2.3G 6M 988P 4CORE I7-3610QE(G)
96MPI5-2.7-3M9T	CORE 2.7G 3M 988P 2CORE I5-3610ME(G)
96MPI3M-2.4-3M9T	CORE 2.4G 3M 988P 2CORE I3-3120ME(G)
96MPCM-2.2-2M9T	CELERON M 2.2G 2M 988P 2CORE 1020E(G)

Embedded OS

Part Number	Description
2070012570	WES2009 32bit 24MUI
2070012650	WES7E 32bit ENG/CHT/CHS/JPN
2070012706	WES7E 64bit ENG/CHT/CHS/JPN
2070012705	WES7P 32bit ENG/CHT/CHS/JPN
2070012628	WES7P 64bit ENG/CHT/CHS/JPN