

# ARK-3500

## Intel® 3rd Gen. Core i High Performance Fanless Embedded Box PC with 2 expansion slots

### Preliminary

### Features

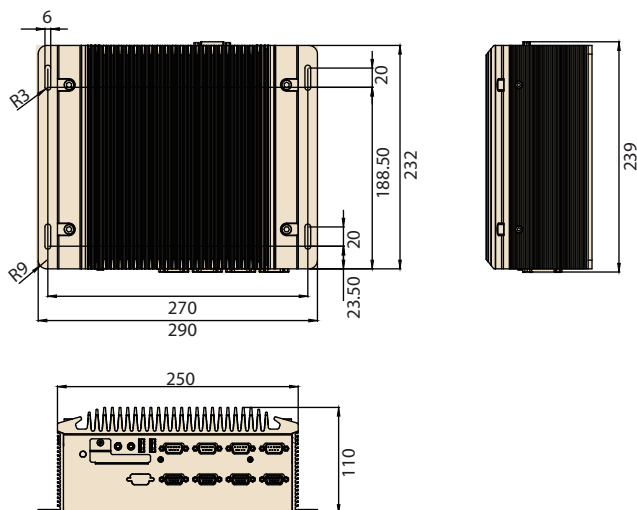
- Support Intel® Core™ i3/i5/i7 mobile processor(rPGA) + Intel QM77 PCH
- Triple independent display with 3rd gen Core I processor : DVI + HDMI + DisplayPort
- DDR3/DDR3L SO-DIMM memory support up to 16 GB
- 2 x card expansion slots with vary interface combinations of PCI, PCIe x 1 and PCIe x 4
- 2 x PCIe mini cards with SIM card holders
- 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 devices
- Support iManager, SUSIAccess and Embedded Software APIs



### Specifications

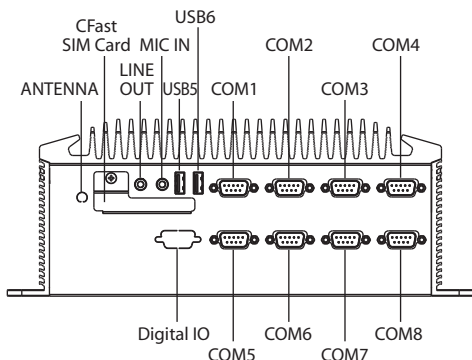
Processor System	CPU	Intel Core i7-3610QE	Intel Core i5-3610ME	Intel Core i3-3120ME	Celeron B810	
	Max. Speed	2.3 GHz	2.7 GHz	2.4 GHz	1.6 GHz	
	L3 Cache	6 MB	3 MB	3 MB	2 MB	
	System Chipset	QM77				
	BIOS	AMI EFI 64Mbit				
Memory	Technology	DDR3 1600 MHz, DDR3L 1333 MHz				
	Max. Capacity	16 GB				
	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, M PEG-2, VC-1				
	CRT	VGA integrated in DVI-I port				
	DVI-I	2560 x 1600 @ 60 Hz				
	HDMI	Support HDMI 1.4, 2560 x 1600 @ 60 Hz				
	Display port	2920 x 1200 @ 60 Hz (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			N/A		
Ethernet	LAN1	10/100/1000 Mbps Intel 82579LM Ethernet controller, support Wake On Lan				
	LAN2	10/100/1000 Mbps Intel I-210IT Ethernet controller, 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)				
Expansions	Mini PCIe	2 x Full-size Mini PCIe with SIM holder (Supports mSATA)				
	Add-on Card Slot	ARK-3500E-00A1E : 2 x PCIe x1				
		ARK-3500P-00A1E : 2 x PCI				
ARK-3500F-00A1E : PCIe x 1 + PCIe x 4; Maximum card size: 110 mm (H) x 180 mm (L)						
Storage	HDD	Two 2.5" drive bay with maximum device height 9.5mm, SATA III, Gen 3 Support				
	Solid State Disk	1 x CFast Card slot				
Software Support	Microsoft Windows	Windows 8 , Windows 7, XP Professional, XP Embedded, WinCE 6.0				
	Linux	Ubuntu 12.04				
Power Requirements	Power Type	AT/ATX				
	Power Input Votage	9 ~ 34 V <sub>DC</sub>				
	Power Adapter	AC to DC, DC19V / 6.32A, 120W (Optional)				
Mechanical	Construction	Aluminum housing				
	Mounting	Desk/wall-mounting				
	Dimensions (W x H x D)	250 x 110 x 230 mm (9.84" x 4.33" x 9.06")				
	Weight	TBD				
Environment	Operating Temperature with SSD	45W Processor: -10 ~ 40° C with 0.7m/s air flow	35W processor: -10 ~ 60° C with 0.7m/s air flow			
	Operating Temperature with HDD	45W Processor: 0 ~ 40° C with 0.7m/s air flow	35W processor: 0 ~ 45° 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	UL, CCC, BSMI				

## Dimensions

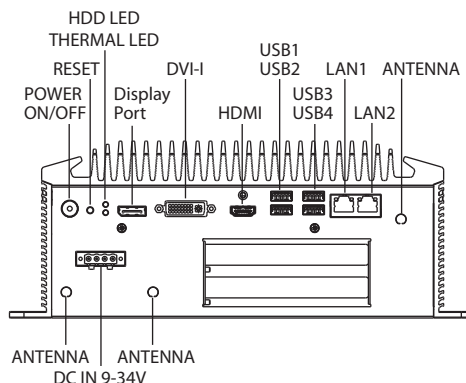


Unit: mm

### Front Panel External I/O Mechanical Layout/Drawing



### Rear Panel External I/O Mechanical Layout/Drawing



## Ordering Information

Part No.	CPU	L2 Cache	DDR3	DP	HDMI	DVI-I	RS-232/422/485	RS-232	USB 3.0	USB 2.0	MiniPCIe*	SIM	DC input	Expansion
ARK-3500E-00A1E	PGA Socket Type	By CPU	2	1	1	2	4	4	4	2	2	2	9 ~ 34 V	2 x PCIe x 1
ARK-3500P-00A1E	PGA Socket Type	By CPU	2	1	1	2	4	4	4	2	2	2	9 ~ 34 V	2 x PCI
ARK-3500F-POA1E	PGA Socket Type	By CPU	2	1	1	2	4	4	4	2	2	2	9 ~ 34 V	1 x PCIe x 1 1 x PCIe x 4

## Packing List

Part Number	Description
1654009744	DVI-I to VGA adaptor
-	Driver CD
-	SUSI CD
-	User Manual (Simplified Chinese)
-	China RoHS for ARK-3500 Electronic Pollution 1st
1652003234	4 pin DC in terminal block
1990020592N001	HDD thermal pad
1990020828N001	CPU thermal pad
-	HDD screws
2190000902	CARDBOARD-WARRANTY REV. A2

## Optional Items

Part Number	Description
-	AC-to-DC Adapter, DC 12V/7A 84W, 0~40° C for Home and Office Use
1702002600	Power cable 3-pin 180 cm, USA type
1702031801	Power cable 3-pin 180 cm, UK type
1702002605	Power cable 3-pin 180 cm, Europe type
1700000237	Power cable 3-pin 180 cm, PSE

## Embedded OS

Part Number	Description
TBD	WES2009 32bit ENG/CHT/CHS/JPN
TBD	WES7E 64bit ENG/CHT/CHS/JPN
TBD	WES7E 32bit ENG/CHT/CHS/JPN