

## EMBEDDED INDUSTRIAL PC Selection Guide

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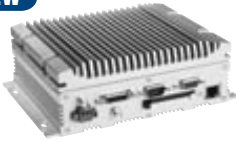


### Selection Guide

Model		ARK-1310	ARK-1360
Processor System	Processor	Advantech EVA-X4150	Intel Atom Z510P 1.1 GHz/Z530 1.6 GHz
	System Chipset	Advantech EVA-X4150	Intel SCH US15WP
	BIOS	Award 2 Mbit Flash BIOS	Award 8 Mbit Flash BIOS
	System Memory	Onboard 64 MB SDRAM	Up to 2 GB DDR2 SDRAM SODIMM
Display Interfaces	CRT	Yes - ARK-1310F-00A1E only	Yes
	LVDS	18-bit LVDS (Optional)	24-bit LVDS (Optional)
	DVI	-	-
	TV Out	-	-
I/O Interfaces	Audio	-	High Definition Audio, Line-In, Spk-out, Mic-in
	Ethernet	2 x 10/100 Mbps	1 x 10/100/1000 Mbps
	Wireless LAN	-	-
	Keyboard/Mouse	1 x PS/2	1 x PS/2
	USB	2 x USB 2.0	4 x USB 2.0
	eSATA	-	-
	Serial Port	4 x RS-232/422/485	2 x RS-232
	Parallel	-	-
	DIO	8-bit DIO	8-bit DIO (by 9-pin D-Sub Connector)
	Expansion	-	1 x Mini PCIe
	Storage System	Solid State Disk	One socket supports Type I/II CompactFlash card
HDD Drive Bay		-	-
Power Supply	Power Management	-	APM 1.2, ACPI 2.0
	Input Voltage	DC 9 V ~ 24 V, AT	DC 12 V ~ 24 V, ATX
	Mounting	Desktop/ Wall/ DIN-Rail/ VESA Mount	
	Dimensions (W x H x D)	189 x 41 x 130.6 mm (7.44" x 1.61" x 5.14")	
	Weight	1.15 kg	
Operating Environment	Operating Temperature	w/ Extended Temperature CF Card: -20 ~ 60° C	0 ~ 55° C
	Vibration During Operation	With CompactFlash disk: 5 Grms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 Oct./min, 1 hr/axis	
	Shock During Operation	With CompactFlash disk: 50 Grms, IEC 60068-2-67, half sine, 11 ms duration	
	Relative Humidity	95% @ 40° C	
EMC		CE/FCC ClassA, CCC, BSMI	
Safety		CB, UL, CCC, BSMI	
Embedded Software Options		WindowsCE. NET 6.0	Windows CE. NET 6.0, Windows XP Embedded

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ARK-1388	ARK-3202	ARK-3360L	ARK-3360F
Intel Core 2 Duo U7500 1.06 GHz/ Intel Celeron M 423 1.06 GHz	Intel Atom N270 1.6 GHz	N450/D510	N450/D510
945GME + ICH7-M	Intel 945GSE + ICH7M	ICH8M	ICH8M
	Award 4 Mbit Flash BIOS	AMI 16 Mbit Flash BIOS	AMI 16 Mbit Flash BIOS
Up to 2 GB DDR2 SDRAM SODIMM	Up to 2 GB DDR2 SDRAM SODIMM	Up to 2 GB DDR2 SDRAM SODIMM	Up to 2 GB DDR2 SDRAM SODIMM
Yes	Yes	Yes	Yes
36-bit LVDS	36-bit LVDS (Optional)	18-bit LVDS (Optional)	18-bit LVDS (Optional)
-	Yes	-	-
-	-	-	-
Mic-in, Spkr-out (Left and Right)	Spkr-out, Mic-in	Line-in, Line-out, Mic-in	Line-in, Line-out, Mic-in
1 x 10/100 Mbps (Support WOL)	2 x 10/100/1000 Mbps (Supports WOL)	2 x 10/100/1000 Mbps (Supports WOL)	3 x 10/100/1000 Mbps (Supports WOL)
-	-	-	-
-	1 x PS/2	-	-
4 x USB 2.0	5 x USB 2.0	6 x USB 2.0	6 x USB 2.0
-	-	-	-
1 x RS-232, 3 x RS-232/422/485	2 x RS-232, and up to 3 x RS-232/422/485	3 x RS-232, 1 x RS-232/422/485	1 x RS-232, 3 x RS-232/422/485, 2 x RS-422/485 w/ isolation and autoflow control
-	-	-	-
6 bit DIO, 4 DI w/ isolation and 2 DO with replay	8-bit DIO	8-bit DIO	8-bit DIO
-	Up to 2 MiniPCle	1 x Mini PCIe	1 x MiniPCI 1 x MiniPCle
One socket supports Type I/II CompactFlash card	One socket supports for Type I/II CompactFlash Card	One socket supports Type I/II CompactFlash Card	
-	1 x SATA 2.5" HDD	1 x SATA 2.5" HDD	
APM 1.2, ACPI 2.0	APM 1.2, ACPI 2.0	APM 1.2, ACPI 2.0	
DC 9 V ~ 32 V, ATX	DC 12 V ~ 24 V, ATX	DC 12V, ATX	DC 12V ~ 24V, ATX
Desktop/ Wall/ DIN-Rail/ VESA Mount	Desktop/ Wall mounting	Desktop/ Wall/ DIN-Rail mount	
189 x 41 x 130.6 mm (7.44" x 1.61" x 5.14")	220 x 68 x 200 mm (8.66" x 2.67" x 7.87")	264.5 x 69.2 x 137.25 mm (10.41" x 2.72" x 5.4")	
1.15 kg	2.2 kg	2.0 kg	2.2 kg
w/ Extended Temperature CF Card and RAM -20 ~ 60° C (ARK-1388V-S0A1E) -20 ~ 55° C (ARK-1388V-S1A1E)	w/ Extended Temperature HDD: 0 ~ 45° C w/ Extended Temperature CF: -20 ~ 60° C	w/ Extended Temperature HDD: 45° C & w/ Extended Temperature CF: -20 ~ 60° C	w/ Extended Temperature HDD: 45° C & w/ Extended Temperature CF: -20 ~ 60° C
With CompactFlash disk: 5 Grms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 Oct./min, 1 hr/axis	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	w/ HDD, 1 Grms, IEC 60068-2-64 random 5 ~ 500 Hz, 1Oct./min, 1hr/axis, 3 axes; CF card only, 5 Grms, IEC 60068-2-64 random 5 ~ 500 Hz, 1Oct./min, 1hr/axis, 3 axes	
With CompactFlash disk: 50 Grms, IEC 60068-2-67, half sine, 11 ms duration	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	w/ HDD, 20 G, IEC 60068-2-27 half sine 11 ms duration, 3 axes w/ CF card, 50 G, IEC 60068-2-27 half sine 11 ms duration, 3 axes	
95% @ 40° C	95% @ 40° C	95% @ 40° C	
CE/FCC Class A, CCC, BSMI	CE/FCC Class A, CCC, BSMI	CE/FCC Class A, CCC, BSMI	
CB, UL, CCC, BSMI	UL, CB, CCC, BSMI	UL, CB, CCC, BSMI	
Vista, WinXPe, WinXP Pro, Win CE .Net 6.0	Windows CE, NET 6.0, Windows XP Embedded	Windows 7, Vista, WinXP Embedded, WinXP Pro	Windows 7, Vista, WinXP Embedded, WinXP Pro

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### Selection Guide

Model		ARK-3390	ARK-3399
Processor System	Processor	Intel Core Duo L2400 1.66 GHz Intel Core 2 Duo U7500 1.06 GHz	Intel Core Duo L2400 1.66 GHz Intel Core 2 Duo U7500 1.06 GHz Intel Celeron M 423 1.06 GHz
	System Chipset	Intel 945GME + ICH7M	Intel 945GME + ICH7M
	BIOS	Award 4 Mbit Flash BIOS	Award 4 Mbit Flash BIOS
	System Memory	Up to 2 GB DDR2 SDRAM SODIMM	Up to 2 GB DDR2 SDRAM SODIMM
Display Interfaces	CRT	Yes	Yes
	LVDS	-	48-bit LVDS
	DVI	Yes	-
	TV Out	-	-
I/O Interfaces	Audio	Line-in, Line-out, Mic-in	Line-in, Line-out, Mic-in
	Ethernet	2 x 10/100/1000 Mbps (Supports WOL)	1 x 10/100/1000 Mbps (Supports WOL)
	Wireless LAN	-	-
	Keyboard/Mouse	1 x PS/2	1 x PS/2
	USB	5 x USB 2.0	5 x USB 2.0
	eSATA	-	-
	Serial Port	1 x RS-232, 3 x RS-232/422/485, 2 x RS-422/485 w/ isolation and autoflow control	1 x RS-232, 1 x RS-232/422/485
	Parallel	-	-
	DIO	8-bit DIO	-
Storage System	Expansion	1 x MiniPCI	-
	Solid State Disk	One socket supports Type I/II CompactFlash Card	one socket supports for Type I/II CompactFlash Card
	HDD Drive Bay	1 x SATA 2.5" HDD	1 x SATA 2.5" HDD
Power Supply	Power Management	APM 1.2, ACPI 2.0	APM 1.2, ACPI 2.0
	Input Voltage	DC 9V ~ 34V, ATX	DC 9V ~ 34V, ATX
	Mounting	Desktop/ Wall/ DIN-Rail mount	Desktop/ Wall/ DIN-Rail mount
	Dimensions (W x H x D)	264.5 x 69.2 x 137.25 mm (10.41" x 2.72" x 5.4")	264.5 x 69.2 x 137.25 mm (10.41" x 2.72" x 5.4")
	Weight	2.2 kg	2.0 kg
Operating Environment	Operating Temperature	w/ Extended Temperature HDD: 0 ~ 45° C w/ Extended Temperature CF: 0 ~ 55° C	w/ Extended Temperature HDD: 0 ~ 45° C w/ Extended Temperature CF: 0 ~ 55° C
	Vibration During Operation	w/ HDD, 1 Grms, IEC 60068-2-64 random 5 ~ 500 Hz, 1Oct./min, 1hr/axis, 3 axes; CF card only, 5 Grms, IEC 60068-2-64 random 5 ~ 500 Hz, 1Oct./min, 1hr/axis, 3 axes	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	w/ HDD, 20 G, IEC 60068-2-27 half sine 11 ms duration, 3 axes w/ CF card, 50 G, IEC 60068-2-27 half sine 11 ms duration, 3 axes	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
	Relative Humidity	95% @ 40° C	95% @ 40° C
EMC		CE/FCC Class A, CCC, BSMI	CE/FCC Class A, CCC, BSMI
Safety		UL, CB, CCC, BSMI	UL, CB, CCC, BSMI
Embedded Software Options		Windows CE, NET 6.0, Windows XP Embedded Windows 7	Vista, WinXP Embedded, WinXP Pro

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ARK-3400	ARK-3403	ARK-3420	ARK-3440
Intel Celeron 370 (1.5 GHz) Intel Celeron 373 (1.0 GHz w/o L2 cache)	Intel Pineview-D D510 1.66 GHz	Intel Core 2 Duo L7500 1.6 GHz, Intel Core 2 Duo U7500 1.06 GHz, Intel Celeron M 550 2.0 GHz	Intel Core i7 610E 2.53 GHz Intel Core i5 520E 2.4 GHz Intel Celeron SV P4505 1.86 GHz
Intel™ 910GML + ICH6-M Chipset	Intel Pineview-D/M+ICH8M	Intel GME965 + ICH8M	Intel™ QM57 Chipset
Award 4 Mbit, FWH	AMI 16 Mbit Flash BIOS	Award 4 Mbit Flash BIOS	AMI 16 Mbit Flash BIOS
Up to 2 GB DDR2 SDRAM SODIMM	Up to 2 GB DDR2 667 SDRAM SODIMM	Up to 4 GB DDR2 SDRAM SODIMM	Up to 4 GB DDR3 1066 SDRAM SODIMM
Yes	Yes	Yes*	Yes
48-bit LVDS (Optional)	18-bit LVDS (Optional)	48-bit LVDS (Optional)	24-bit LVDS (Optional)
Yes	-	Yes	Yes
-	-	-	-
Line-out, Mic-in, Line-in	High Definition Audio, Line-in, Line-out, Mic-in	Line-In, Spk-out, Mic-in	High Definition Audio, Line-In, Spk-out, Mic-in
2 x 10/100/1000 Mbps (Supports WOL)	2 x 10/100/1000 Mbps (Supports WOL)	2 x 10/100/1000 Mbps (Supports WOL)	2 x 10/100/1000 Mbps (Supports WOL)
-	-	-	-
-	-	-	-
6 x USB 2.0	6 x USB 2.0	6 x USB 2.0	6 x USB 2.0
1	1	1	1
2 x RS-232, 2 x RS-232/422/485	2 x RS-2322, 2x RS-232/422/485, 2 x RS-232 (Optional)	2 x RS-232, 2 x RS-232/422/485 RS-485 w/ autoflow control	2 x RS-232, 1 x RS-232/422/485, 2 x RS-232, 1x RS-232/422/485 (optional)
Optional	Optional	Optional	Optional
16-bit DIO (Optional)	8 in, 8 out (Optional)	16-bit DIO (Optional)	16-bits DIO (Optional)
2 PCI slots +1 Mini PCI	PCI+PCIe Slots + 2 MiniPCIe	2 PCI slots+1 Mini PCIe	2 PCI+PCIe Slots + 2 MiniPCIe
One socket supports for Type I/II CompactFlash Card	One socket supports Type I/II CompactFlash Card	One socket supports for Type I/II CompactFlash Card	One socket supports Type I/II CompactFlash Card
1 x SATA 2.5" HDD	2 x SATA 2.5" HDD	2 x SATA 2.5" HDD	2 x SATA 2.5" HDD
APM 1.2	APM 1.2, ACPI 3.0	APM 1.2	APM 1.2, ACPI 3.0
DC 14 V ~DC 24 V	DC 12 V ~ 24 V, ATX	DC 9 V ~ 34 V, ATX	DC 9 V ~ 34 V, ATX
Desk/Wall-mounting	Desktop/ Wall mounting	Desktop/ Wall mounting	Desktop/ Wall mounting
220 x 102.5 x 200 mm (8.66" x 4.04" x 7.87")	220 x 102.5 x 200 mm (8.66" x 4.04" x 7.87")	220 x 102.5 x 200 mm (8.66" x 4.04" x 7.87")	220 x 102.5 x 200 mm (8.66" x 4.04" x 7.87")
4.0 kg	4.0 kg	4.0 kg	4.0 kg
-20 ~ 55° C	w/ Extended Temperature HDD & CF: -20 ~ 55° C	-20 ~ 55° C	w/ Extended Temperature HDD & CF: -20 ~ 55° C
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	w/ HDD, 1 Grms, IEC 60068-2-64 random 5~500Hz, 1 Oct./min, 1hr/ axis, 3 axes; CF card only, 5 Grms, IEC 60068-2-64 random 5 ~ 500 Hz, 1 Oct./min, 1hr/axis, 3 axes	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	w/ HDD, 1 Grms, IEC 60068-2-64 random 5~500Hz, 1Oct./min, 1hr/axis, 3 axes; CF card only, 5 Grms, IEC 60068-2-64 random 5 ~ 500 Hz, 1 Oct./min, 1hr/axis, 3 axes
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	w/ HDD, 20 G, IEC 60068-2-27 half sine 11 ms duration, 3 axes w/ CF card, 50 G, IEC 60068-2-27 half sine 11 ms duration, 3 axes	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	w/ HDD, 20 G, IEC 60068-2-27 half sine 11 ms duration, 3 axes w/ CF card, 50 G, IEC 60068-2-27 half sine 11 ms duration, 3 axes
95% @ 40° C	95% @ 40° C	95% @ 40° C	95% @ 40° C
CE/FCC Class A, CCC, BSMI	CE/FCC Class A, CCC, BSMI	CE/FCC Class A, CCC, BSMI	CE/FCC Class A, CCC, BSMI
UL, CB, CCC, BSMI	UL, CB, CCC, BSMI	UL, CB, CCC, BSMI	UL, CB, CCC, BSMI
	Windows CE., Windows XP Embedded, Windows XP, Windows 7, Linux Fedora 9.0	Windows CE, NET 6.0, Windows XP Embedded, Windows XP, Linux Fedora 9.0	Windows CE., Windows XP Embedded, Windows XP, Windows 7, Linux Fedora 9.0