

ARK-1300 Series

Ultra Compact Embedded IPCs



ARK-1300 series embedded IPCs are ultra compact, powerful, and fanless systems designed for rugged and space-critical applications. This series provides integrators a scalable range of processors from Advantech SoC™ to Intel® Core™ 2 Duo, connectivity from multiple gigabit ethernet to wireless interfaces, and high-graphics capable systems. ARK-1300 series is perfect for automation control applications.

Ordering Information

Part Number	Description
ARK-1310F-00A1E	EVA-X4150, VGA/4 x RS-232/422/485, ultra-compact embedded box IPC
ARK-1310L-00A1E	ARK-1310F w/o VGA
ARK-1360F-S1A1E	Intel® Atom™ Z510 1.1GHz with miniPCIe + 8 DIO + 2 COMs, ultra-compact embedded box IPC
ARK-1360F-S6A1E	Intel® Atom™ Z530 1.6GHz with miniPCIe + 8 DIO + 2 COMs, ultra-compact embedded box IPC
ARK-1382-S0A1E	Intel® Celeron® M ULV 423 1.06 GHz, ultra-compact embedded IPC
ARK-1382-S2A1E	Intel® Core™ Duo ULV U7500 1.2 GHz, ultra-compact embedded IPC

Product Selection Guide



Model Name	ARK-1310	ARK-1360	ARK-1382
Features	Cost-effective, entry-level automation system solution	Cost-effective, Intel® Atom™ solution with MiniPCIe expansion slot	Multi-display solution for signage applications
Processor System	Processor	Advantech EVA-X4150	Intel® Atom™ Z510P 1.1 GHz / Z530 1.6 GHz
	System Memory	Onboard 64 MB DDR memory	Up to 2 GB DDR2 SDRAM SODIMM
Graphics	CRT	Yes (ARK-1310F-00A1E only)	Yes
	LVDS	18-bit LVDS (optional)	24-bit LVDS (optional)
	DVI	-	-
	TV Out	-	-
I/O Interface	Audio	-	High Definition Audio, Line-out, Mic-in
	Ethernet	2 x 10/100 Mbps	1 x 10/100/1000 Mbps
	Keyboard/Mouse	1 x PS/2	1 x PS/2
	USB	2 x USB 2.0	4 x USB 2.0
	eSATA	-	-
	Serial Port / Parallel Port	4 x RS-232/422/485	2 x RS-232
	Expansion	-	1 x MiniPCIe
	Wireless	-	-
Storage	Solid State Disk	One Type I/II CompactFlash card	One Type I/II CompactFlash card
	HDD	-	-
Power Requirements	Input Voltage & Type	DC 9 V ~ 24 V, AT	DC 12V ~ 24V, ATX
Certifications	EMC	CE, FCC, CCC, BSMI	CE, FCC, CCC
	Safety	UL, CCC, BSMI	UL, CCC
Dimensions (W x H x D)	189 x 41 x 130.6 mm (7.44" x 1.61" x 5.14")	189 x 41 x 130.6 mm (7.44" x 1.61" x 5.14")	189 x 41 x 130.6 mm (7.44" x 1.61" x 5.14")
Operating Temperature	w/ extended temperature CF card: -20 ~ 60°C	0 ~ 55°C	0 ~ 60°C

* CRT is extended from DVI-I port by Y-cable

ARK-3200/3300 Series



Slim Embedded IPCs

ARK-3200 series embedded IPCs are designed in an ultra low profile aluminum housing (only 68 mm high) with rich I/O ports. The thermal engineering handles high chipset thermal dissipation without a fan. ARK-3200 series provides system integrators with a turn-key solution and a versatile application development path, without breaking the bank or missing time-to-market deadlines.



Compact & MIO Expandable Embedded IPCs

ARK-3300 series embedded IPCs are compact size embedded systems with rich I/O functions. Low power consumption, flexible MIO expansions, and reduced size make the ARK-3300 series the best choice for controller applications. In addition, the flexibility of VESA mount, DIN mount, and wall mount enable the ARK-3300 series to be mounted in most scenarios. As a result, ARK-3300 series is a great choice for general controllers in industrial applications.

Ordering Information

Part Number	Description
ARK-3202L-S6A1E	Intel® Atom™ N270 1.6 GHz compact embedded IPC
ARK-3202F-S6A1E	Intel® Atom™ N270 1.6 GHz with 5 x COM and 2 x MiniPCIe, compact embedded IPC
ARK-3360L-N4A1E	Intel® Atom™ N450 1.66 GHz, compact embedded IPC
ARK-3360F-N4A1E	Intel® Atom™ N450 1.66 GHz, compact embedded IPC
ARK-3360L-D5A1E	Intel® Atom™ D510 1.66 GHz, compact embedded IPC
ARK-3360F-D5A1E	Intel® Atom™ D510 1.66 GHz, compact embedded IPC
ARK-3390-1S1A1E	Intel® Core™ 2 Duo U7500 1.06 GHz, compact embedded IPC
ARK-3390-1S6A1E	Intel® Core™ Duo L2400 1.66G, compact embedded IPC
ARK-3399-1S1A1E	Intel® Core™ 2 Duo U7500 1.06G, compact embedded IPC
ARK-3399-1S6A1E	Intel® Core™ 2 Duo L2400 1.66G, compact embedded IPC

Product Selection Guide



Model Name		ARK-3202	ARK-3360	ARK-3390	ARK-3399
Features		Cost-effective Intel® Atom™ N270 multiple function platform	Ultra low power consumption Intel® Atom™ fanless solution	Highly integrated multi I/O Intel® Core™ 2 Duo fanless solution	Intel® Core™ 2 Duo solution for signage/ embedded system control
Processor System	Processor	Intel® Atom™ N270 1.6 GHz	Intel® Atom™ N450/D510 1.66 GHz	Intel® Core Duo LV 1.66 GHz/ Core™ 2 Duo ULV 1.06 GHz	Intel® Core™ Duo LV 1.66 GHz/ Core™ 2 Duo ULV 1.06 GHz/
	System Memory	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
Graphics	CRT	Yes	Yes	Yes	Yes
	LVDS	36-bit LVDS (optional)	18-bit LVDS (optional)	48-bit LVDS (optional)	48-bit LVDS
	DVI	Yes	-	DVI-D	-
	TV Out	-	-	-	-
I/O Interface	Audio	Spk-out, Mic-in	High Definition Audio, Line-in, Line-out, Mic-in	Line-In, Line-out, Mic-in	Line-In, Line-out, Mic-in
	Ethernet	2 x 10/100/1000 Mbps	3 x 10/100/1000 Mbps	2 x 10/100/1000 Mbps	1 x 10/100/1000 Mbps
	Keyboard/ Mouse	1 x PS/2	-	1 x PS/2	1 x PS/2
	USB	5 x USB 2.0	6 x USB 2.0	5 x USB 2.0	5 x USB 2.0
	eSATA	-	-	-	-
	Serial Port / Parallel Port	2 x RS-232, 3 x RS-232/422/485	1 x RS-232, 3 x RS-232/422/485, 2 x RS-422/485	1 x RS-232, 3 x RS-232/422/485, 2 x RS-422/485	1 x RS-232, 1 x RS-232/422/485
	Expansion	Up to 2x MiniPCIe	1 x MiniPCI, 1 x MiniPCIe	MiniPCI	-
	Wireless	-	-	-	-
Storage	Solid State Disk	One Type I/II CompactFlash Card	One Type I/II CompactFlash Card	One Type I/II CompactFlash Card	One Type I/II CompactFlash Card
	HDD	1 x 2.5" HDD bay	1 x 2.5" SATA HDD bay	1 x 2.5" SATA HDD bay	1 x 2.5" SATA HDD bay
Power Requirements	Input Voltage & Type	DC 12 V ~ 24 V, ATX	DC 12V ~24V, ATX	DC 9 V ~ 34 V, ATX	DC 9 V ~ 34 V, ATX
Certifications	EMC	CE, FCC, CCC, BSMI	CE, FCC, CCC, BSMI	CE, FCC, CCC, BSMI	CE, FCC, CCC, BSMI
	Safety	UL, CCC, BSMI	UL, CCC, BSMI	UL, CCC, BSMI	UL, CCC, BSMI
Dimensions (W x H x D)		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")	264.5 x 69.2 x 137.25 mm (10.41" x 2.72" x 5.40")	264.5 x 69.2 x 137.25 mm (10.41" x 2.72" x 5.40")
Operating Temperature		w/ Extended Temperature HDD: 0 ~ 45°C & CF: -20 ~ 60°C	w/ Extended Temperature HDD: 0 ~ 45°C & w/ Extended Temperature CF: -20 ~ 60°C	w/ Extended Temperature HDD & CF: 0 ~ 55°C	w/ Extended Temperature HDD & CF: 0 ~ 55°C

* CRT is extended from DVI-I port by Y-cable

ARK-3400/5000 Series



PCI/PCIe Expandable Embedded IPCs

ARK-3400 series embedded IPCs are ideal, application-ready system platform solutions. ARK-3400 series units come with two 2.5-inch HDD drive bays to meet large storage demands, flexible expansion with two PCI or PCIe alternative expansion slots, friendly, easy-access CF card, and removable HDD drive design. They support a wide range of input voltages, and are packed into small, rugged cases.



PCI/PCIe Slot Expandable Embedded IPCs

ARK-5000 series embedded IPCs are designed for slot CPU boards; ARK-5000 series offer easy, modular, system expansion using PCI/PCIe slots. These embedded IPCs are ideal for applications involving machine automation, industrial plant, and cabinet integration.

Ordering Information

Part Number	Description
ARK-3400F-S5A1E	Intel® Celeron® 370 (1.5 GHz), expandable compact embedded IPC
ARK-3400F-S0A1E	Intel® Celeron® 373 (1.0 GHz w/o L2 cache), expandable compact embedded IPC
ARK-3403-D5A1E	Intel® Atom™ D510 1.66 GHz, compact embedded IPC
ARK-3403-D6A1E	Intel® Atom™ D525 1.8GHZ, compact embedded IPC
ARK-3420F-S6A1E	Intel® Core™ 2 Duo L7500 1.6 GHz, expandable compact embedded IPC
ARK-3420F-S1A1E	Intel® Core™ 2 Duo U7500 1.06 GHz, expandable compact embedded IPC
ARK-3420F-U0A1E	Intel® Celeron® M 550 2.0 GHz, expandable compact embedded IPC
ARK-3440A-U4A1E	Intel® Core™ i5-520E 2.4GHZ, w/ AMT, function key
ARK-3440A-U5A1E	Intel® Core™ i7-610E 2.53GHz, w/ iAMT, function key
ARK-3440F-U4A1E	Intel® Core™ i5-520E 2.4GHZ, expandable compact embedded IPC
ARK-3440F-U5A1E	Intel® Core™ i7-610E 2.53GHz, expandable compact embedded IPC
ARK-5260F-D5A1E	Intel® Atom™ D510 1.66GHz, w/ VGA, 5 x USB, 4 x COM, Audio, 2 x PCI and 1 x PCIe X1 expansion slot, 2 x Mobile HDD Bay, expandable compact embedded IPC

Product Selection Guide



Model Name		ARK-3400	ARK-3403	ARK-3420	ARK-3440	ARK-5260
Features		Cost effective Intel® Celeron® M solution with 2 PCI expansion and multiple I/O	Valuable Intel® Atom™ D510/D525 with PCI/PCIe expansion and dual SATA HDDs	High performance with PCIe expansion and dual SATA HDDs for image processing and surveillance	High performance Intel® i7 processor fanless computing platform	Valuable ultra low power platform w/ 3 x PCI/ 1 x PCIe expansion slot
Processor System	Processor	Intel® Celeron M 370 1.5 GHz/ Celeron M 373 1.0 GHz	Intel® Atom™ D510/ Intel® Atom™ D525 1.8 GHz	Intel® Core™ 2 Duo L7500 1.6 GHz/ U7500 1.06GHz/ 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® Atom™ D510 1.66 GHz
	System Memory	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	Up to 2GB DDR2 SDRAM SODIMM
Graphics	CRT	Yes*	Yes	Yes*	Yes*	Yes
	LVDS	48-bit LVDS (Optional)	18-bit LVDS (Optional)	48-bit LVDS (Optional)	24-bit LVDS (Optional)	-
	DVI	Yes*	-	Yes*	Yes*	-
	TV Out	-	-	-	HDMI	-
I/O Interface	Audio	Line-In, Line-out, Mic-in	Line-in, Line-out, Mic-in	Line-In, Line-out, Mic-in	Line-in, Line-out, Mic-in	Line-in, Line-out, Mic-in
	Ethernet	2 x 10/100/1000 Mbps	2 x 10/100/1000 Mbps	2 x 10/100/1000 Mbps	2 x 10/100/1000 Mbps	2 x 10/100/1000 Mbps
	Keyboard/Mouse	-	-	-	-	1 x PS/2
	USB	6 x USB 2.0	6 x USB 2.0	6 x USB 2.0	6 x USB 2.0	5 x USB 2.0
	eSATA	1 x eSATA	1 x eSATA	1 x eSATA	1 x eSATA	-
	Serial Port / Parallel Port	2 x RS-232, 2 x RS-232/422/485 w/ autoflow control	2 x RS-232, 2 x RS-232/422/485 (Optional) w/ autoflow control	2 x RS-232, 2 x RS-232/422/485 w/ autoflow control	2 x RS-232, 1 x RS-232/422/485, (Optional 2 x RS-232 & 1 x RS-232/422/485 by cabling)	4 x RS-232/422/485
	Expansion	2 x PCI slot, 1 x Mini PCI	1 x PCI, 1 x PCIe, 2 x MiniPCIe	2 x PCI, 1 x Mini PCIe	2 x PCI/PCIe, 2 x MiniPCIe	2x PCI, 1 x PCIe
Storage	Wireless	-	-	-	-	-
	Solid State Disk	One Type I/II CompactFlash Card	One Type I/II CompactFlash Card	One Type I/II CompactFlash Card	One Type I/II CompactFlash Card	One Type I/II CompactFlash Card
	HDD	1 x 2.5" SATA HDD bay	2 x 2.5" SATA HDD Bay	2 x 2.5" SATA HDD bay	2 x 2.5" SATA HDD	2 x 2.5" SATA HDD Bay
Power Requirements	Input Voltage & Type	DC 14 V ~ 24 V, AT/ATX	DC 12V ~ 24V, ATX	DC 9 V ~ 34 V, ATX	DC 9V~34V, ATX	DC 12V ~ 24V, ATX
Certifications	EMC	CE, FCC, CCC, BSMI	CE, FCC, CCC, BSMI	CE, FCC, CCC, BSMI	CE, FCC, CCC, BSMI	CE, FCC, CCC, BSMI
	Safety	UL, CCC, BSMI	UL, CCC, BSMI	UL, CCC, BSMI	UL, CCC, BSMI	CCC, BSMI
Dimensions (W x H x D)		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")	220x102.5x200 mm (8.66"x4.04"x7.87")	137 x 189 x 221 mm(5.39"x7.4"x 8.7")
Operating Temperature		w/ Extended Temperature HDD: -20 ~ 45°C & CF: -20 ~ 55°C	w/ Extended Temperature HDD: -20~45 C & CF: -15~55 C	w/ Extended Temperature HDD: -20 ~ 45°C & CF: -20 ~ 55°C	w/ Extended Temperature HDD: 0~45 C & CF: 0 ~ 55 C	w/ Extended Temperature HDD: 0~45 C & CF: -20~60 C

* CRT is extended from DVI-I port by Y-cable

ARK-VH Series

In-Vehicle Embedded IPCs



The ARK-VH Series embedded IPC is a brand new design for in-vehicle, fanless, embedded IPCs and offers industrial-grade, high computing power, multiple I/O and low-noise operation for a range of in-vehicle applications, including in-vehicle signage, in-vehicle surveillance, and in-vehicle communications. Advantech in-vehicle platforms feature a vehicle-friendly power design (compliant with ISO-7637-2), wireless communications, GPS receiver, in-vehicle certification (E-Mark, EN50155), anti-vibration and shock resistant design (MIL-810), and easy installation. They operate in an extended range of temperatures with industrial grade Compact Flash, from -20 up to 60° C; in addition, these rugged designs endure shock and vibration and fit a variety of vertical in-vehicle markets such as police cars, taxis, buses, emergency vehicles, trucks, and trains. They are ideal solutions to speed up system integrators' time-to-market and reduce cost for space-critical, in-vehicle applications.

Ordering Information

ARK-1388V	
ARK-1388V-S0A1E	Intel® Celeron® M423 1.06 GHz, ultra-compact in-vehicle embedded IPC
ARK-1388V-S1A1E	Intel® Core™ 2 Duo U7500 1.06 GHz, ultra-compact in-vehicle embedded IPC
ARK-3202V	
ARK-3202V-S6A1E	Intel® Atom™ N270 1.6 GHz, in-vehicle fanless platform w/ 2 MiniPCIe, GPS, 5 x COM, 5 USB 2.0
ARK-VH200	
ARK-VH200A-D5A1E	Intel® Atom™ D510 1.66GHz, fanless mobile DVR platform w/ 4 ch H.264 video recording, GPS, and 2 x MiniPCIe
ARK-VH200B-D5A1E	Intel® Atom™ D510 1.66GHz, fanless mobile DVR platform w/ GPS, 1 x PoE, and 2 x MiniPCIe

Product Selection Guide



Model		ARK-1388V	ARK-3202V	ARK-VH200
Features		Ultra Compact in-vehicle high performance platform	Valuable Intel® Atom™ N270 in-vehicle platform	Fanless, Intel® Atom™ D510 mobile DVR platform
Processor System	Processor	Intel® Celeron 423 1.06GHz / Intel® Core™ 2 Duo U7500 1.06GHz	Intel® Atom™ N270 1.6 GHz	Intel® Atom™ D510 1.66 GHz
	System Memory	Up to 2GB SDRAM SODIMM	Up to 2 GB DDR2 SDRAM SODIMM	Up to 2 GB DDR2 SDRAM SODIMM
Graphics	CRT	Yes	Yes	Yes
	LVDS	36-bit LVDS	36-bit LVDS (Optional)	18-bit LVDS
	DVI	-	Yes (optional)	-
	TV Out	-	-	-
I/O Interface	Audio	Spkr-out (Left and Right), Mic-in	Spkr-out, Mic-in	Line-out, Mic-in
	Ethernet	2 x 10/100 Mbps	2 x 10/100/1000 Mbps	2 x 10/100/1000 Mbps, and 1 x 10/100/1000 Mbps support PoE
	Keyboard/Mouse	-	1 x PS/2	-
	USB	4 x USB 2.0	5 x USB 2.0	2 x USB 2.0, 2 x lockable USB2.0
	eSATA	-	-	1 x eSATA
	Serial Port / Parallel Port	1xRS-232, 3x RS-232/422/485	2 xRS-232, 3 x RS-232/422/485	3x RS-232
	Wireless	On-board GPS receiver, 1x 802.11 b/g WLAN (Optional), 1xGSM/GPRS/EDGE/UMTS/HSDPA (Optional)	On-board GPS Receiver	On-board GPS Receiver
Expansion	-	2 x MiniPCIe (with SIM card socket)	2 x MiniPCIe (with SIM card socket)	
Video/Audio Encoder	Video Input	-	-	4 CH video Inputs
	Resolution	-	-	CIF, 2CIF, D1
	Recording FPS	-	-	Up to D1 @ 120/100 FPS (NTSC/PAL)
	Video Compression	-	-	H/W Compression, H.264
	Audio Encoder	-	-	4 CH Audio Inputs
Storage	Solid State Disk	One Type I/II CompactFlash Card	One Type I/II CompactFlash Card	One Type I/II CompactFlash Card
	HDD	-	-	1 x 2.5" SATA HDD bay
Power Requirements	Input Voltage & Type	DC 9V~32V, AT/ATX, support PWR Ignition, Complaint with ISO 7637-2	DC 9V~32V, AT/ATX, support PWR Ignition, Complaint with ISO 7637-2	DC 9V~32V, AT/ATX, support PWR Ignition, Complaint with ISO 7637-2
Certifications	EMC	E-Mark E13, CE, FCC, CCC, BSMI	CE, FCC, CCC, BSMI	CE, FCC, CCC, BSMI
	Safety	E-Mark E13, UL, CCC, BSMI	UL, CCC, BSMI, E-Mark	CCC, BSMI, E-Mark, EN50155
Dimensions (W x H x D)		164 x 49.2 x 170 mm (6.46" x 1.94" x 6.69")	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")
Operating Temperature		w/ Extended Temperature CF & RAM: -20~60° C (ARK-1388V-S0A1E); -20~55° C (ARK-1388V-S1A1E)	w/ Extended Temperature HDD: 0 ~ 45° C & CF: -20~ 60° C	w/ Extended Temperature HDD: 0~45° C & CF: -20~60° C

* CRT is extended from DVI-I port by Y-cable