

ARK-10

Intel® Celeron Quad Core J1900 Quad Core SoC with Dual GbE and Dual COM Fanless Box PC



Features

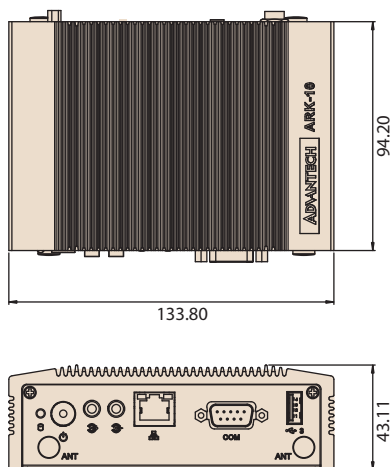
- Intel® Celeron J1900 Quad Core 2.0 GHz SoC
- 2G DDR3L Memory & 500G 2.5" 24x7 SATA HDD Built In
- 2 x GbE for Multiple Internet Transmission
- 2 x RS-232/422/485 (BIOS selection)
- 1 x Full-Size MiniPCIe (ex. WLAN or WWAN module)
- Optional VESA / DIN Rail / Wall Mounting kits
- Threaded DC jack design
- Supports SUSIAccess and Embedded Software APIs



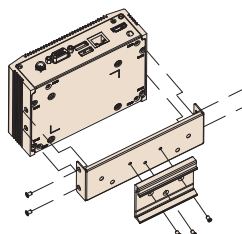
Specifications

		ARK-10-U0A2E
Processor System	CPU	Intel® Celeron Processor J1900 Quad Core SoC
	Frequency	2.0 GHz (Up to 2.41 GHz w/ burst frequency enabled)
	L2 Cache	2 MB
	BIOS	AMI EFI 64 Mbit (Default BIOS is supported for 64-bit OS installation, BIOS for 32-bit OS is supported by project)
Memory	Technology	DDR3L 1333 MHz
	Socket	1 x 204-pin SO-DIMM, 2 GB Memory Built In
Graphics	Chipset	Intel® Atom SoC integrated
	Graphic Engine	DirectX* 11.1, OGL 3.0, OCL 1.1, OGL ES 2.0 Encode: H264, MPEG2/4, VC1, WMV9 Decode: H264, MPEG2
	VGA	1 x VGA, support up to 1920 x 1200 at 60Hz
Audio	Main System	ALC-888S, High Definition Audio. Line-out & Line-in
Ethernet	LAN #1	10/100/1000 Mbps Intel I210 GbE, support Wake on LAN
	LAN #2	10/100/1000 Mbps Intel I210 GbE, support Wake on LAN
I/O Interface	Serial Ports	2 x RS-232/422/485 (BIOS selectable)
	USB Interface	2 x USB 2.0 & 1 x USB3.0
Other	Watchdog timer	255-level timer interval, setup by software
Expansion	Mini PCIe	1 x Full-size Mini PCIe, support WLAN or WWAN module
Storage	2.5" Drive Bay	1 x 500GB 2.5" 24x7 SATA HDD Built In
	mSATA	1x half-size mSATA (Suggest to assembly by CTOS or T-Part due to complex installation)
Software Support	Microsoft Windows	WES7, Windows 7, WE8S, Windows 8 (32-bit support by project)
	Linux	Support (by Project)
Power Requirement	Power Input Voltage	Single 12 V _{DC}
	Power Adapter	AC to DC, DC12 V/3 A, 36 W with threaded design
Mechanical	Construction	Aluminum housing
	Mounting	VESA/DIN Rail/Wall Mounting Kits (Optional)
	Dimensions (W x H x D)	133.8 x 43.1 x 94.2 mm (5.27" x 1.7" x 3.71")
Environment	Operating Temperature	0 ~ 50° C with 0.7m/s air flow
	Storage Temperature	-40 ~ 85 °C (-40-185 °F)
	Relative Humidity	95% @ 40 °C (non-condensing)
	Vibration During Operation	0.5Grms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 hr/axis
	Shock During Operation	10G, IEC 60068-2-27, half sine, 11 ms duration
Regulation	EMC	CE/FCC Class A, CCC, BSMI
	Safety	UL, CCC, BSMI, CB

Dimensions

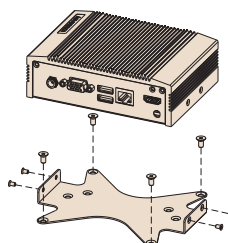


DIN Rail

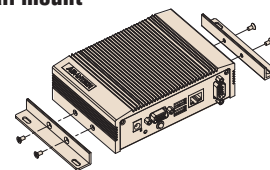


Unit: mm

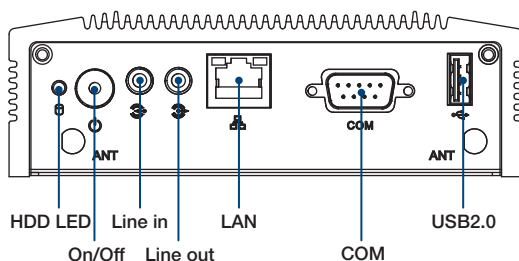
VESA mount



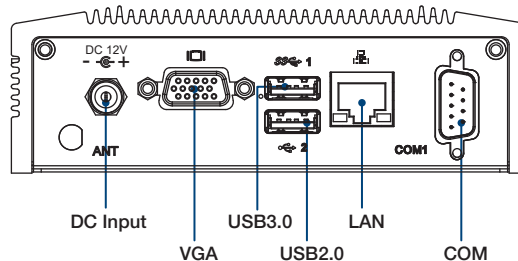
Wall mount



Front Panel External I/O Mechanical Layout/Drawing



Rear Panel External I/O Mechanical Layout/Drawing



Ordering Information

Part Number	CPU	RAM	VGA	GbE	USB 2.0	USB 3.0	RS-232/422/485	Audio	MiniPCIe	2.5" HDD bay	mSATA	Operating Temperature
ARK-10-U0A2E	Intel Atom J1900 QC	2GB Built In	1	2	2	1	2	Line in Line out	1 Full-size	1 x 500G 2.5" 24x7 HDD Built In	1 (H/S)	0 ~ 50 °C

Packing List

Part Number	Description
-	1 x ARK-10 Unit
-	1 x User Manual (Simplified Chinese)
-	1 x AC to DC adapter DC 12V/3A 36W

Embedded OS (Only available for T-Parts OEM, and CTOS service)

Part Number	Description
2070013062	WE8S 64-bit with EN/JP/TC/SC (OS size around 11G)
2070013368	WE8S 64-bit with EN/JP/TC/SC (OS size around 13G)

* Default BIOS is supported for 64-bit OS installation, BIOS for 32-bit OS is supported by project.

Optional Items

Part Number	Description
1700001524	Power Cable 3-pin 180cm, USA type
170203183C	Power Cable 3-pin 180cm, Europe type
170203180A	Power Cable 3-pin 180cm, UK type
1700008921	Power Cable 3-pin PSE Mark 183cm
AMK-V003E	ARK-112X series VESA mounting kit
AMK-R001E	ARK-112X series DIN-rail mounting kit
AMK-W001E	ARK-112X series Wall mounting kit

ARK-11

Intel Celeron N3350 DC SoC with 4K Dual HDMI/Dual LAN/M.2 DIN-Rail Fanless Box PC



Features

- Intel Celeron N3350 Dual Core 1.1 GHz
- DIN-Rail system with essential I/O ports on front-side bezel
- I-Grade 4G DDR3L memory and 64G SSD built-in
- Windows 10 IoT Enterprise built-in
- 60W adaptor bundled in the accessory box
- Dual HDMI display up to 4K resolution
- 1 x full-size mPCIe with SIM holder and 1 x M.2 2230 for WIFI #1
- 12V ~ 28V wide range power input
- -30 ~ 70 °C extended operating temperature
- Advantech WISE-DeviceOn support



WISE-DeviceOn SUSI API



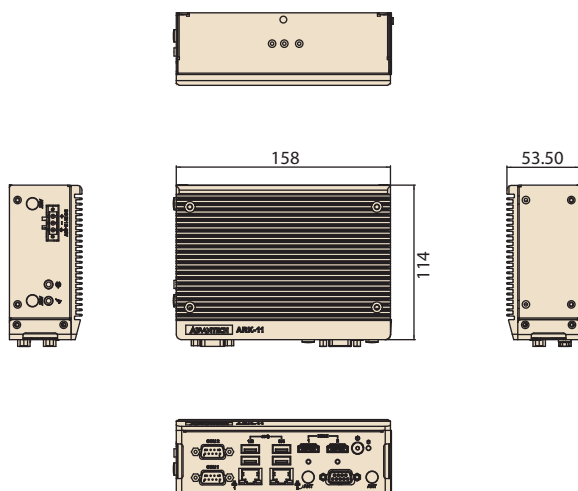
Specifications

Model Name	ARK-11-S1A3	
Processor System	CPU	Intel Celeron N3350 Dual Core SoC
	Frequency	1.1 GHz, turbo burst up to 2.4 GHz
	Core Number	2
	BIOS	AMI EFI 64 Mbit
Memory	Technology	DDR3L 1866 Mhz
	Max capacity	8GB, 1 x 4GB memory (-40 ~ 85 °C) built-in
	Socket	2 x 204-pin SO-DIMM
Graphics	Chipset	Intel HD Graphics 500, CPU integrated
	Graphic Engine	Gen9 Low Power; 18 Execution Units Media Codec Supported: H.264, MPEG2, MVC, VC-1, WMV9, H.265 / HEVC, VP8, JPEG / MJPEG 3D HW Acceleration: OpenGL 4.4, DirectX* 12, OpenCL* 2.0
	HDMI	HDMI1 : 3840 x 2160 @ 30Hz HDMI2 : 3840 x 2160 @ 30Hz
	Dual Display	HDMI1 + HDMI2
Ethernet	LAN1	10/100/1000 Mbps Intel i210GbE, support Wake On LAN
	LAN2	10/100/1000 Mbps Intel i210GbE, support Wake On LAN
Audio	Interface	Realtek ALC888S, High Definition Audio, Mic-in, Line-out
I/O Interface	Serial Ports	2 x RS-232/422/485 with auto flow control, COM2 with 5V/12V power supply
	USB Ports	4 x USB 3.0
	GPIO	8-bit Programmable DIO (Optional)
Expansion	Mini PCIe	1 x Full-size mPCIe with SIM holder #1
	M.2	1 x M.2 2230 E key for WIFI module #1
Storage	SSD/HDD	1 x 2.5" 64G MLC SSD (-40~85°C) built-in
	mSATA	1 x Full-size mSATA (*share with mPCIe slot)
Other	WatchDog Timer	255 levels timer interval, setup by software
Software Support	Microsoft Windows	Windows 10 IoT Enterprise built-in
	Linux	Support by project
Power Requirement	Power Type	ATX/AT
	Power Input Voltage	12 ~ 28 V _{DC}
	Power Adaptor	AC to DC, 24V/2.5A 60W adaptor built-in
Power Consumption	Typical	6.4W
	Max.	18.1W
Mechanical	Construction	Aluminum housing
	Mounting	DIN-rail/Wall Mount
	Dimensions (W x H x D)	53.5 x 158 x 114 mm (2.11" x 6.22" x 4.49")
	Weight	1.2 kg (2.65lb)
Environment	Operating Temperature	With extended temp. peripherals: -30 ~ 70 °C (-22 ~ 158 °F) with 0.7 m/s air flow With 2.5 inch hard disk: 0 ~ 40 °C (32 ~ 104 °F) with 0.7 m/s air flow
	Storage Temperature	-40 ~ 85 °C (-40 ~ 185°F)
	Relative Humidity	95% @ 40 °C (non-condensing)
	Vibration during Operation	With SSD: 3 Grms, IEC60068-2-64, random, 5~500 Hz, 1hr/axis
	Shock during Operation	With SSD: 30 G, IEC-60068-2-27, half sine, 11 ms duration
	EMC	CE/FCC Class B, CCC, BSMI
	Safety	UL, CB, CCC and BSMI

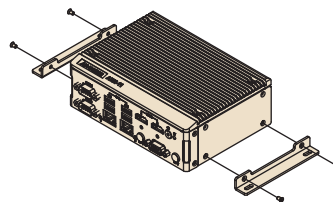
#1 SIM holder and M.2 slot are hardware interfaces for wireless communication integration only. System level RF certification is not available.

Dimensions

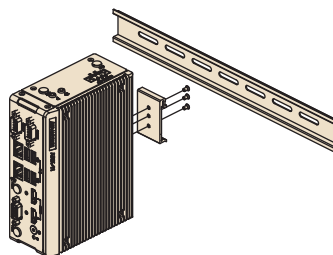
Unit: mm



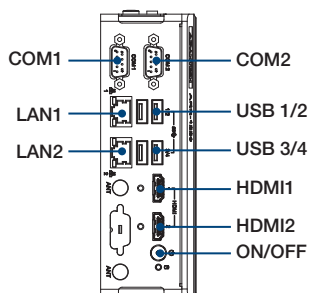
Wall Mount



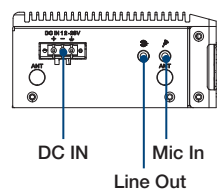
DIN Rail



Front Panel External I/O Mechanical Layout/Drawing



Top Panel External I/O Mechanical Layout/Drawing



Ordering Information

Part No.	CPU	RAM	HDMI	GbE	USB 3.0	RS-232/422/485	Audio	Full-size MiniPCle	SIM	M.2	2.5" SATA III HDD Bay	mSATA	Power Input	Operating Temp.
ARK-11-S1A3	Intel Celeron N3350 1.1 GHz SoC	4GB built-in	2	2	4	2	Mic-in, Line-out	1	1	1	64GB SSD built-in	1 (shared w/ mPCle)	12-28 V _{oc}	-30 ~ 70 °C

Packing List

Part Number	Description
-	1 x ARK-1220L Unit
-	1 x User Manual (Simplified Chinese)
-	Wrench for top cover
1960015198T011	1 x DIN-rail bracket
1652004519	1 x 3-pin terminal block
96PSA-A60W24T2-3	24V/2.5A 60W adaptor

Optional Items

Part Number	Description
1702002600	Power cable 3-pin 183cm, USA type
1702002605	Power cable 3-pin 183cm, EU type
1702031801	Power cable 3-pin 183cm, UK type
1700000237	Power cable 3-pin 183cm, PSE type
1700023855-01	1M lockable HDMI cable
1700023856-01	3M lockable HDMI cable
1700019967	GPIO cable, F Cable 2*5P-2.0/D-SUB 9P(F) 15CM
AMK-W003	ARK-1220L wall mount kit

Embedded OS

Part Number	Description
20706WX9ES0108	Win10 IoT Ent 2019 LTSC 64bit, English (14.7GB)

ARK-1123C

Intel® Atom E3825 SoC with Dual GbE and Dual COM Fanless Box PC



Features

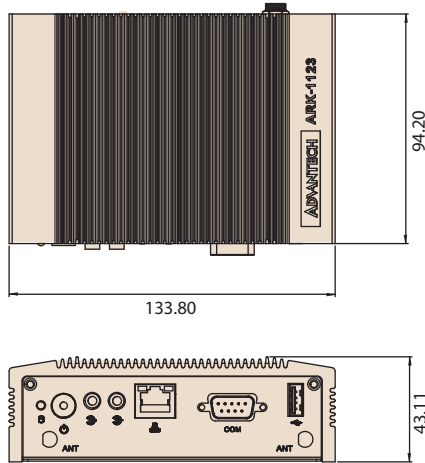
- Intel® Atom™ E3825 Dual Core 1.33 GHz SoC
- 1 x 2.5" SATA HDD/SSD Bay & 1 x VGA
- 2 x GbE for Multiple Internet Transmission
- 2 x RS-232/422/485 (BIOS selection)
- 1 x Full-Size MiniPCIe (ex. WLAN or WWAN module)
- 1 x Half-size mSATA
- Optional VESA / DIN Rail / Wall Mounting kits
- Threaded DC jack design
- Supports SUSIAccess and Embedded Software APIs



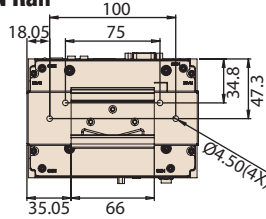
Specifications

		ARK-1123C-S3A2E
Processor System	CPU	Intel Atom Processor E3825 Dual Core SoC
	Frequency	1.33 GHz
	L2 Cache	1 MB
	BIOS	AMI EFI 64 Mbit (Default BIOS is supported for 64-bit OS installation, BIOS for 32-bit OS is supported by project)
Memory	Technology	DDR3L 1066MHz
	Max. Capacity	8 GB
	Socket	1 x 204-pin SO-DIMM
Graphics	Chipset	Intel® Atom SoC integrated
	Graphic Engine	DirectX* 11.1, OGL 3.0, OCL 1.1, OGL ES 2.0 Encode: H264, MPEG2/4, VC1, WMV9 Decode: H264, MPEG2
	VGA	1 x VGA, support up to 1920 x 1200 at 60Hz
Audio	Main System	ALC-888S, High Definition Audio. Line-out & Line-in
Ethernet	LAN #1	10/100/1000 Mbps Intel I210 GbE, support Wake on LAN
	LAN #2	10/100/1000 Mbps Intel I210 GbE, support Wake on LAN
I/O Interface	Serial Ports	2 x RS-232/422/485 (BIOS selectable)
	USB Interface	2 x USB 2.0 & 1 x USB3.0
Other	Watchdog timer	255-level timer interval, setup by software
Expansion	Mini PCIe	1 x Full-size Mini PCIe, support WLAN or WWAN module
Storage	2.5" Drive Bay	1 x 2.5" SATA HDD Bay (Max Height 9.5mm)
	mSATA	1x Half-size mSATA (Suggest to assembly by CTOS or T-Part due to complex installation)
Software Support	Microsoft Windows	WE7, Windows 7, WE8S, Windows 8, Windows 10
	Linux	Support (by Project)
Power Requirement	Power Input Voltage	Single 12 V _{DC}
	Power Adapter	AC to DC, DC12 V/3 A, 36 W with threaded design
Power Consumption	Typical	5.28W
	Max.	8.16W
Mechanical	Construction	Aluminum housing
	Mounting	VESA/DIN Rail/Wall Mounting Kits (Optional)
	Dimensions (W x H x D)	133.8 x 43.1 x 94.2 mm (5.27" x 1.7" x 3.71")
	Weight	0.8 kg
Environment	Operating Temperature	With extended temperature SSD/mSATA/RAM: -30 ~ 70° C with 0.7m/s air flow With standard temperature HDD/SSD/mSATA/RAM peripherals: 0 ~ 40° C with 0.7m/s air flow
	Storage Temperature	-40 ~ 85° C (-40-185° F)
	Relative Humidity	95% @ 40° C (non-condensing)
	Vibration During Operation	With mSATA/SSD: 3 Grms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 hr/axis With HDD: 0.5Grms, IEC 60068-2-64, random, 5~500Hz, 3 axes, 1hr/axis
	Shock During Operation	With mSATA/SSD: 30 G, IEC 60068-2-27, half sine, 11 ms duration With HDD: 10G, IEC 60068-2-27, half sine, 11 ms duration
Regulation	EMC	CE/FCC Class B, CCC, BSMI
	Safety	UL, CCC, BSMI, CB

Dimensions

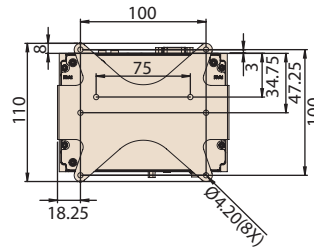


DIN Rail

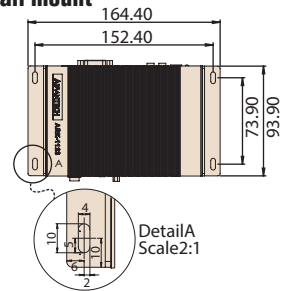


Unit: mm

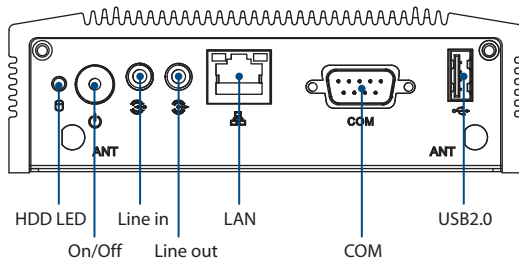
VESA mount



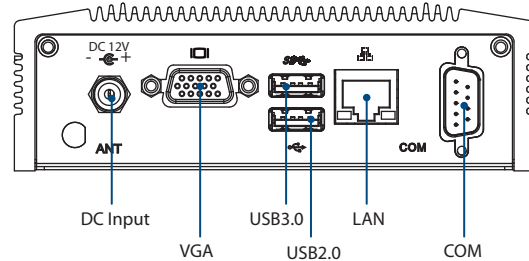
Wall mount



Front Panel External I/O Mechanical Layout/Drawing



Rear Panel External I/O Mechanical Layout/Drawing



Ordering Information

Part Number	CPU	RAM	VGA	GbE	USB 2.0	USB 3.0	RS-232/422/485	Audio	MiniPCIe	2.5" HDD bay	mSATA	Operating Temperature
ARK-1123C-S3A2E	Intel Atom E3825	Up to 8GB	1	2	2	1	2	Line in Line out	1 Full size	1	1 (H/S)	-30 ~ 70° C

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

Packing List

Part Number	Description
-	1 x ARK-1123C Unit
-	1 x User Manual (Simplified Chinese)
96PSA-A36W12W7	1 x AC to DC adapter DC 12V/3A 36W, -20 ~ 60° C

Embedded OS (Only available for T-Parts OEM, and CTOS service)

Part Number	Description
2070013032	WE7E 64-bit with EN/JP/TC/SC (OS size around 11G)
2070013370	WE8S 64-bit with EN/JP/TC/SC (OS size around 13G)
2070013712	WE7E 32-bit with EN/JP/TC/SC
2070014791	Win10 IoT Ent LTSB 2016 64bit, EN

Optional Items

Part Number	Description
1700001524	Power Cable 3-pin 180cm, USA type
170203183C	Power Cable 3-pin 180cm, Europe type
170203180A	Power Cable 3-pin 180cm, UK type
1700008921	Power Cable 3-pin PSE Mark 183cm
AMK-V003E	ARK-112X series VESA mounting kit
AMK-R001E	ARK-112X series DIN-rail mounting kit
AMK-W001E	ARK-112X series Wall mounting kit

ARK-1123H

Intel® Celeron Quad Core J1900 SoC with Dual HDMI/GbE IoT Fanless BOX PC



Features

- Intel® Celeron J1900 Quad Core 2.0 GHz SoC
- 1 x 2.5" SATA HDD/SSD Bay
- 2 x GbE for Multiple Internet Transmission
- 2 x Independent HDMI
- 1 x RS-232/422/485 (BIOS selection)
- 1 x Full-Size MiniPCIe (ex. WLAN or WWAN module)
- 1 x Half Size mSATA
- Optional VESA / DIN Rail / Wall Mounting kits
- Threaded DC jack design
- Supports SUSIAccess and Embedded Software APIs
- Support WIFI 802.11 a/b/g/n bundled for IoT Gateway



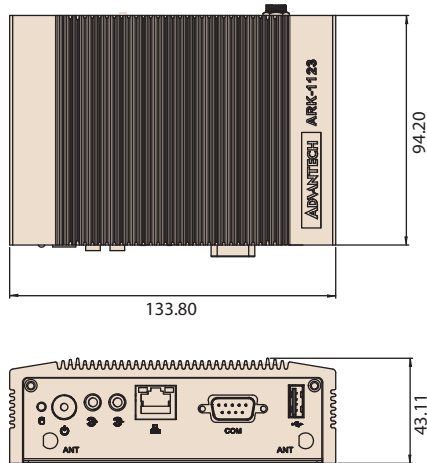
WISE-PaaS/RMM



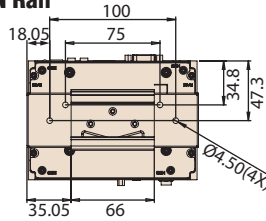
Specifications

		ARK-1123H-U0A2E
Processor System	CPU	Intel® Celeron™ Processor J1900 Quad Core 2.0 GHz SoC
	Frequency	2.0 GHz (Up to 2.41 GHz w/ burst frequency enabled)
	L2 Cache	2 MB
	BIOS	AMI EFI 64 Mbit (Default BIOS is supported for 64-bit OS installation, BIOS for 32-bit OS is supported by project)
Memory	Technology	DDR3L 1333MHz
	Max. Capacity	8 GB
	Socket	1 x 204-pin SO-DIMM
Graphics	Chipset	Intel® Atom SoC integrated
	Graphic Engine	DirectX* 11.1, OGL 3.0, OCL 1.1, OGL ES 2.0 Encode: H264, MPEG2/4, VC1, WMV9 Decode: H264, MPEG2
	HDMI	2 x Lockable HDMI connector, support up to 1920 x 1080 at 60Hz (2nd HDMI w/o audio function by Intel limitation)
Audio	Main System	ALC-888S, High Definition Audio. Line-out & Line-in
Ethernet	LAN #1	10/100/1000 Mbps Intel I210 GbE, support Wake on LAN
	LAN #2	10/100/1000 Mbps Intel I210 GbE, support Wake on LAN
I/O Interface	Serial Ports	1 x RS-232/422/485 (BIOS selectable)
	USB Interface	2 x USB 2.0 & 1 x USB3.0
Other	Watchdog timer	255-level timer interval, setup by software
Expansion	Mini PCIe	1 x Full-size Mini PCIe, support WLAN or WWAN module
Storage	2.5" Drive Bay	1 x 2.5" SATA HDD Bay (Max Height 9.5mm)
	mSATA	1 x Half-size mPCIe (Suggest to assembly by CTOS or T-Part due to complex installation)
Software Support	Microsoft Windows	WES7, Windows 7, WE8S, Windows 8 and Windows 10
	Linux	Support (by Project)
Power Requirement	Power Input Voltage	Single 12 V _{DC}
	Power Adapter	AC to DC, DC12 V/3 A, 36 W with threaded design
Power Consumption	Typical	5.64W
	Max.	14.04W
Mechanical	Construction	Aluminum housing
	Mounting	VESA/DIN Rail/Wall Mounting Kits (Optional)
	Dimensions (W x H x D)	133.8 x 43.1 x 94.2 mm (5.27" x 1.7" x 3.71")
	Weight	0.8kg
Environment	Operating Temperature	With extended temperature SSD/mSATA/RAM : -20 ~ 60° C with 0.7m/s air flow With standard temperature HDD/SSD/mSATA/RAM peripherals: 0 ~ 40° C with 0.7m/s air flow
	Storage Temperature	-40 ~ 85° C (-40-185° F)
	Relative Humidity	95% @ 40° C (non-condensing)
	Vibration During Operation	With mSATA/SSD: 3 Grms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 hr/axis With HDD: 0.5Grms, IEC 60068-2-64, random, 5~500Hz, 3 axes, 1hr/axis
	Shock During Operation	With mSATA/SSD: 30 G, IEC 60068-2-27, half sine, 11 ms duration With HDD: 10G, IEC 60068-2-27, half sine, 11 ms duration
Regulation	EMC	CE/FCC Class B, CCC, BSMI
	Safety	UL, CCC, BSMI, CB

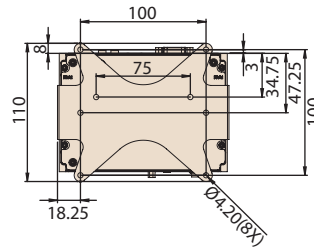
Dimensions



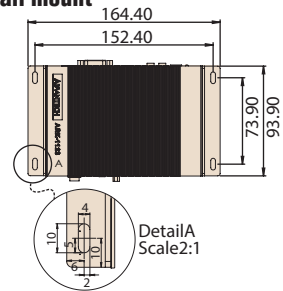
DIN Rail



VESA mount

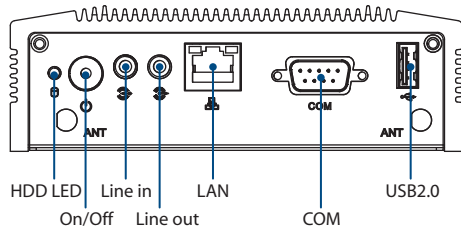


Wall mount

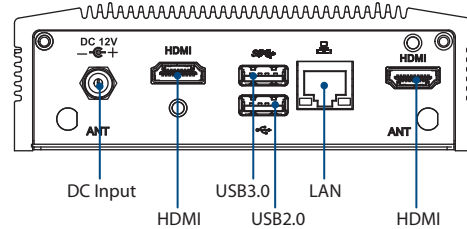


Unit: mm

Front Panel External I/O Mechanical Layout/Drawing



Rear Panel External I/O Mechanical Layout/Drawing



Ordering Information

Part Number	CPU	RAM	HDMI	GbE	USB 2.0	USB 3.0	RS-232/422/485	Audio	MiniPCIe	2.5" HDD bay	mSATA	Operating Temperature
ARK-1123H-U0A2E	Intel Celeron J1900	Up to 8GB	2	2	2	1	1	Line in Line out	1 Full size	1	1 (H/S)	-20 ~ 60° C

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

Packing List

Part Number	Description
-	1 x ARK-1123H Unit
-	1 x User Manual (Simplified Chinese)
96PSA-A36W12W7	1 x AC to DC adapter DC 12V/3A 36W, -20 ~ 60° C

Embedded OS (Only available for T-Parts OEM, and CTOS service)

Part Number	Description
2070013033	WE7E 64-bit with EN/JP/TC/SC (OS size around 11G)
2070013371	WE8S 64-bit with EN/JP/TC/SC (OS size around 13G)
2070014792	WIN10 IoT LTSB_x64_Eng
2070014334	Win10 IoT Core_x32 V10.1.10586.0 EN
2070014369	IDP-WR3.1_x64 V1.0.1 EN

Optional Items

Part Number	Description
1700001524	Power Cable 3-pin 180cm, USA type
170203183C	Power Cable 3-pin 180cm, Europe type
170203180A	Power Cable 3-pin 180cm, UK type
1700008921	Power Cable 3-pin PSE Mark 183cm
AMK-V003E	ARK-112X series VESA mounting kit
AMK-R001E	ARK-112X series DIN-rail mounting kit
AMK-W001E	ARK-112X series Wall mounting kit
1700023855-01	1M lockable HDMI cable
1700023856-01	3M lockable HDMI cable
AMO-WIFI08E	WIFI802.11a/b/g/n, Atheros AR9462,2T2R

ARK-1123L

Intel® Atom E3825 SoC with Dual COM and GPIO Palm-Size Fanless Box PC



Features

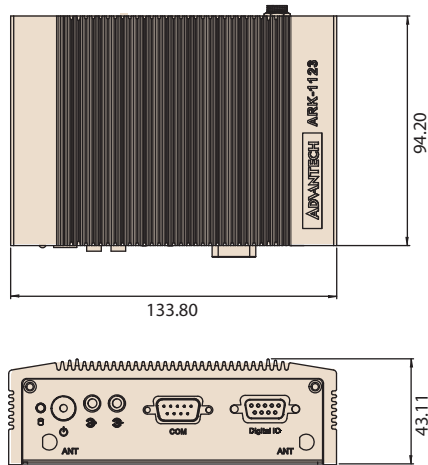
- Intel® Atom™ Processor E3825 Dual Core 1.33 GHz SoC
- 1 x 2.5" SATA HDD/SSD Bay
- 1 x GbE & 1 x VGA & 1 x GPIO
- 1 x RS-232 & 1 x RS-232/422/485
- 1 x Full-Size MiniPCIe (ex. WLAN or WWAN module)
- 1 x Half Size MiniPCIe (ex. mSATA)
- Optional VESA / DIN Rail / Wall Mounting kits
- Threaded DC jack design
- Supports SUSIAccess and Embedded Software APIs



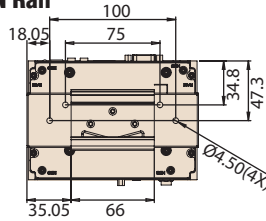
Specifications

		ARK-1123L-S3A2E
Processor System	CPU	Intel Atom E3825 Dual Core SoC
	Frequency	1.33 GHz
	L2 Cache	1 MB
	BIOS	AMI EFI 64 Mbit (Default BIOS is supported for 64-bit OS installation, BIOS for 32-bit OS is supported by project)
Memory	Technology	DDR3L 1066MHz
	Max. Capacity	8 GB
	Socket	1 x 204-pin SO-DIMM
Graphics	Chipset	Intel® Atom SoC integrated
	Graphic Engine	DirectX* 11.1, OGL 3.0, OCL 1.1, OGL ES 2.0 support Encode: H264, MPEG2/4, VC1, WMV9 Decode: H264, MPEG2
	VGA	1 x VGA, support up to 1920 x 1200 at 60Hz
Audio	Main System	ALC-888S, High Definition Audio. Line-out & Line-in
Ethernet	LAN #1	10/100/1000 Mbps Intel I210 GbE, support Wake on LAN
I/O Interface	Serial Ports	1 x RS-232 & 1 x RS-232/422/485 (BIOS selectable)
	USB Interface	1 x USB 2.0 & 1 x USB3.0
Other	Watchdog timer	255-level timer interval, setup by software
	GPIO	8 bit GPIO
Expansion	Mini PCIe	1 x Full-size Mini PCIe, support WLAN or WWAN module
Storage	2.5" Drive Bay	1 x 2.5" SATA HDD Bay (Max Height 9.5mm)
	mSATA	1 x Half-size mSATA
Software Support	Microsoft Windows	WES7, Windows 7, WE8S, Windows 8 and Windows 10
	Linux	Support (by Project)
Power Requirement	Power Input Voltage	Single 12 V _{DC}
	Power Adapter	AC to DC, DC12 V/3 A, 36 W with threaded design
Power Consumption	Typical	5.28W
	Max.	8.16W
Mechanical	Construction	Aluminum housing
	Mounting	VESA/DIN Rail/Wall Mounting Kits (Optional)
	Dimensions (W x H x D)	133.8 x 43.1 x 94.2 mm (5.27" x 1.7" x 3.71")
	Weight	0.8kg
Environment	Operating Temperature	With extended temperature SSD/mSATA/RAM : -30 ~ 70° C with 0.7m/s air flow With standard temperature HDD/SSD/mSATA/RAM peripherals:0 ~ 40° C with 0.7m/s air flow
	Storage Temperature	-40 ~ 85° C (-40~185° F)
	Relative Humidity	95% @ 40° C (non-condensing)
	Vibration During Operation	With mSATA/SSD: 3 Grms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 hr/axis With HDD: 0.5Grms, IEC 60068-2-64, random, 5~500Hz, 3 axes, 1hr/axis
	Shock During Operation	With mSATA/SSD: 30 G, IEC 60068-2-27, half sine, 11 ms duration With HDD: 10G, IEC 60068-2-27, half sine, 11 ms duration
Regulation	EMC	CE/FCC Class A, CCC, BSMI
	Safety	UL, CCC, BSMI, CB

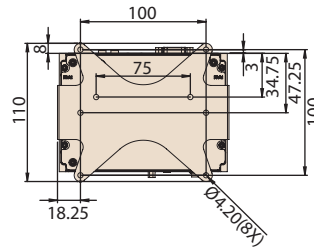
Dimensions



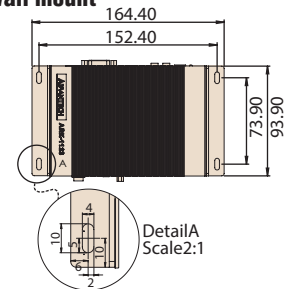
DIN Rail



VESA mount

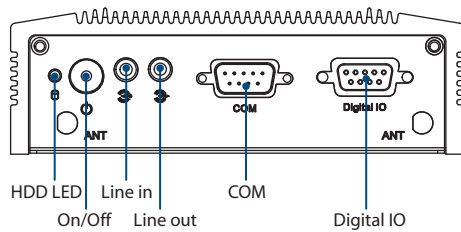


Wall mount

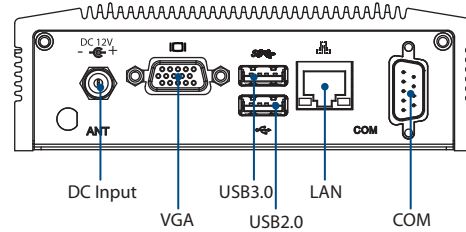


Unit: mm

Front Panel External I/O Mechanical Layout/Drawing



Rear Panel External I/O Mechanical Layout/Drawing



Ordering Information

Part Number	Intel CPU	RAM	VGA	GbE	USB 2.0	USB 3.0	RS-232	RS-232/422/485	GPIO	Audio	MiniPCIe	2.5" HDD bay	mSATA	Operating Temperature
ARK-1123L-S3A2E	Intel Atom E3825	Up to 8GB	1	1	1	1	1	1	1	Line in Line out	1 Full size	1	1 (H/S)	-30 ~ 70° C

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

Packing List

Part Number	Description
-	1 x ARK-1123L Unit
-	1 x User Manual (Simplified Chinese)
96PSA-A36W12W7	1 x AC to DC adapter DC 12V/3A 36W, -20 ~ 60° C

Embedded OS (Only available for T-Parts OEM, and CTOS service)

Part Number	Description
2070013031	WE7E 64-bit with EN/JP/TC/SC (OS size around 11G)
2070013369	WE8S 64-bit with EN/JP/TC/SC (OS size around 13G)
2070014790	WIN10 IoT LTSC x64 Eng

Optional Items

Part Number	Description
1700001524	Power Cable 3-pin 180cm, USA type
170203183C	Power Cable 3-pin 180cm, Europe type
170203180A	Power Cable 3-pin 180cm, UK type
1700008921	Power Cable 3-pin PSE Mark 183cm
AMK-V003E	ARK-112X series VESA mounting kit
AMK-R001E	ARK-112X series DIN-rail mounting kit
AMK-W001E	ARK-112X series Wall mounting kit

ARK-1124C

Intel Celeron N3350 DC SoC With Four Serial Ports Modular Fanless Box PC

NEW



Features

- Intel Celeron N3350 Dual Core SoC
- VGA Display, 4 x RS-232/422/485, 2 x USB3.0
- 1 x full-size miniPCIe for communication module
- 1 x 2.5" SATA III SSD/HDD and 1 x half-size mSATA
- -20 ~ 60 °C extended operating temperature
- 12V lockable DC jack power input
- Optional 12~24V power module (Dual Layer)
- Advantech iDoor module compatible (Dual Layer)
- Advantech WISE-PaaS/RMM support



WISE-PaaS/RMM

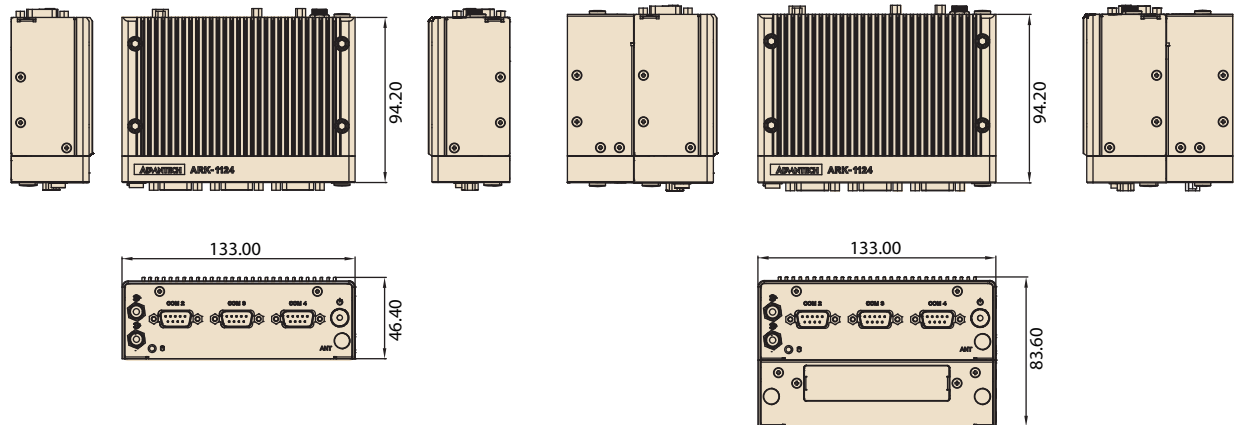


Specifications

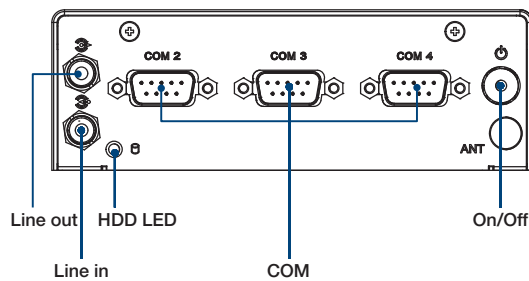
		ARK-1124C-S1A1E
Processor System	CPU	Intel® Celeron® N3350 Dual Core SoC
	Frequency	1.1 GHz, turbo burst 2.4 GHz
	L2 Cache	2 MB
	BIOS	AMI EFI 64 bit
Memory	Technology	DDR3L 1866 MHz
	Max. Capacity	8 GB
	Socket	1 x 204-pin SO-DIMM
Graphics	Chipset	Intel® HD Graphics 500
	Graphic Engine	4K Codec Decode& Encode for H.264, MPEG2, MVC, VC-1, WMV9, H.265 / HEVC, VP8, JPEG / MJPEG
	VGA	Up to 2048 x 1280 @ 60Hz
Ethernet	LAN	10/100/1000 Mbps Intel i210 GbE, support Wake On Lan
Audio	Interface	Realtek ALC888S, High Definition Audio. Line-out, Line-in
IO Interface	Serial Ports	4 x RS-232/422/485 port with auto flow control
	USB Interface	2 x USB 3.0
Other	Watchdog timer	255 levels timer interval, setup by software
Expansion	Mini PCIe	1 x full-size mPCIe for WLAN/WWAN
	iDoor	1, optional (2nd layer)
Storage	SSD/HDD	Supports 1 x 2.5" SATA III Drive Bay (Compatible with 9.5mm height)
	mSATA	1x Half-size mSATA (by CTOS or T-PN)
Software Support	Microsoft Windows	Win 10 IoT Enterprise LTSB
	Linux	Support by project
Power Requirement	Power Type	AT/ATX
	Power Input Voltage	12V _{DC} (Optional 12~24V power module)
	Minimum Power Input	12 V, 3 A
Power Consumption	Power Adapter	AC to DC, DC12 V/3 A, 36 W with lockable DC Jack
	Typical	5.5W
Mechanical	Max.	18.8W
	Construction	Aluminum housing
	Mounting	DIN-Rail/Wall/VESA Mounting Kits (Optional)
	Dimensions (W x H x D)	133 x 46.4 x 94.2mm (5.24" x 1.83" x 3.71")
Environment	Weight	0.7 Kg (1.55lb)
	Operating Temperature	With extended temperature peripherals: -20 ~ 60 °C (-4 ~ 140 °F) with 0.7m/s air flow With 2.5-inch hard disk 0 ~ 40 °C (32 ~ 104 °F) with 0.7m/s air flow
	Storage Temperature	- 40 ~ 85 °C (-40 ~ 185 °F)
	Relative Humidity	95% @ 40 °C (non-condensing)
	Vibration During Operation	With SSD: 3 Grms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 hr/axis. With HDD: 0.5Grms, IEC 60068-2-64, random, 5~500Hz, 1hr/axis
	Shock During Operation	With SSD: 30 G, IEC 60068-2-27, half sine, 11 ms duration With HDD: 10G, IEC 60068-2-27, half sine, 11 ms duration
	EMC	CE/FCC Class B, CCC, BSMI
	Safety Certifications	UL, CB, CCC, BSMI

Dimensions

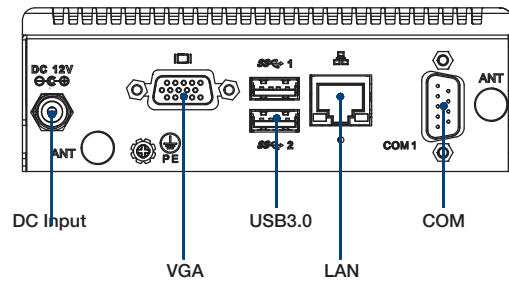
Unit: mm



Front Panel External I/O Mechanical Layout/Drawing



Rear Panel External I/O Mechanical Layout/Drawing



Ordering Information

Part No.	CPU	RAM	VGA	GbE	USB 3.0	RS-232/422/485	Audio	Full-size MiniPCIe	mSATA	2.5" SATA III HDD Bay	Power Input	Operating Temp.
ARK-1124C-S1A1E	Intel Celeron N3350 1.1 GHz SoC	Up to 8GB	1	1	2	4	Lin-out, Line-in	1	1 (H/S)	1	12 V _{DC}	-20 ~ 60 °C

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

Packing List

Part Number	Description
-	1 x ARK-1124C Unit
-	1 x User Manual (Simplified Chinese)
96PSA-A36W12W7	A/D 100-240V 36W 12V C6 LOCKABLE DC PLUG
-	LAN clip
-	Wrench for top cover

Optional Item for Default SKU

Part Number	Description
1700001524	Power Cable 3-pin 180cm, USA type
170203183C	Power Cable 3-pin 180cm, Europe type
170203180A	Power Cable 3-pin 180cm, UK type
1700008921	Power Cable 3-pin 180cm, PSE type
AMK-W001E	ARK-112X series Wall mounting kit
AMK-V003E	ARK-112X series VESA mounting kit
AMK-R001E	ARK-112X series DIN-rail mounting kit

Optional Embedded OS

Part Number	Description
2070015307	Win10 IoT Ent LTSB 2016 64bit ENG

ARK Plus Extended Modules

ARK-1 124 Dual Layer Expansion Option Items

Expansion Kit Selection



AMO-1101 and iDoor



AMO-1101 and AMO-P011

Ordering Information

Optional ARK Plus Mechanical Kit

P/N	Description
AMO-1101	Mechanical kit for 2nd layer expansion

Optional iDoor Expansion

Part Number	Description
MOS-2230-Z1201E	CANBus module, 2-Ch, USB Interface
MOS-2220-X1101E	Parallel LPT module, 1-Ch, USB Interface
MOS-2110Z-1201E	USB module, 2-Ch, PCIe Interface
MOS-2120-Z1101E	Giga LAN Ethernet module, 1-Ch, PCIe Interface
MOS-1130Y-0201E	Isolated CANBus, 2-Ch, DB9, PCIe Interface
MOS-1110Y-0101E	Isolated 16 DI/8 DO, 1-Ch, DB37, PCIe Interface
MOS-2220-Z1101E	High Speed COM module, 1-Ch, USB Interface
MOS-1120Y-0202E	Isolated RS-232, 2-Ch, DB9, PCIe I/F
MOS-1121Y-0202E	Isolated RS-422/485, 2-Ch, DB9, PCIe I/F
MOS-1120Y-1402E	Non-Isolated RS-232, 4-Ch, DB37, PCIe I/F
MOS-1121Y-1402E	Non-Isolated RS-422/485, 4-Ch, DB37, PCIe I/F
MOS-2120-Z1201	Dual Intel I210 GbE LAN, 2-Ch, PCIe I/F

Optional 12-24V DC Power module

Part Number	Description
AMO-P011	12-24V DC input power module Operating temp. -20~60 °C
96PSA-A60W12P2-1	AC to DC ADP, 12V/5A 60W (for AMO-P011)
1702002600	Power cord 3-pin 183cm, USA type (for AMO-P011)
1702002605	Power cord 3-pin 183cm, EU type (for AMO-P011)
1702031801	Power cord 3-pin 183cm, UK type (for AMO-P011)
1700000237	Power cord 3-pin 183cm, PSE type (for AMO-P011)

* For iDoor module expansion, please order AMO-1101 and iDoor P/N

* For Wide range power module expansion, please order AMO-1101 and AMO-P011

* For iDoor and wide range power module expansion, please order AMO-1101, iDoor P/N and AMO-P011

* Dual layer mounting kit is same as single layer

ARK-1124H

Intel Atom™ E3940 QC SoC With Dual HDMI/ Dual LAN/ Four USB Modular Fanless Box PC

NEW



Features

- Intel Atom E3940 Quad Core SoC
- Dual HDMI independent display support 4K2K resolution
- 1 x Full-size miniPCIe with SIM holder for communication module
- 1 x M.2 E Key for WIFI module
- 1 x 2.5" SATA III SSD/HDD and 1 x mSATA
- TPM built in for well security
- -20 ~ 60 °C extended operating temperature
- 12V lockable DC jack power input
- Optional 12~24V power module (Dual Layer)
- Advantech iDoor module compatible (Dual Layer)
- Advantech WISE-PaaS/RMM support



WISE-PaaS/RMM

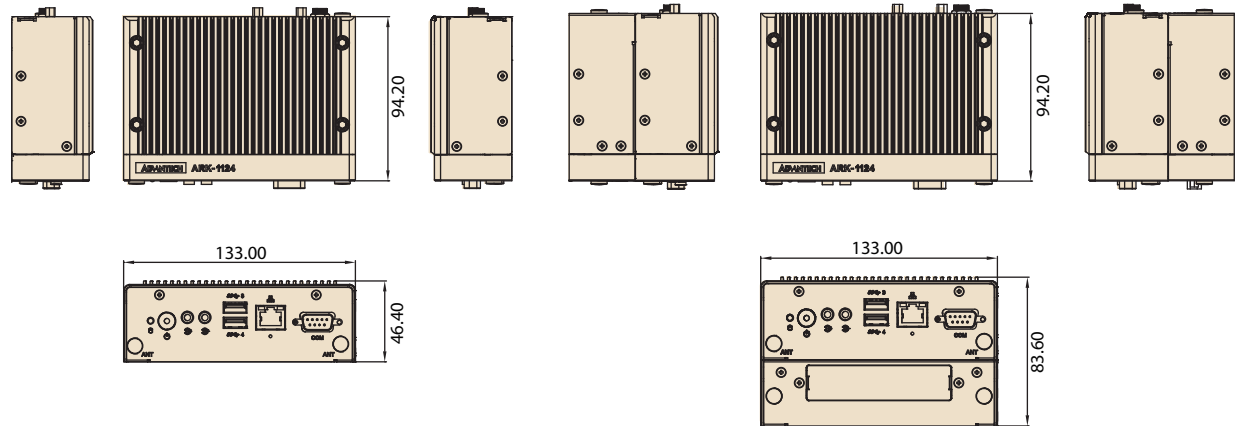


Specifications

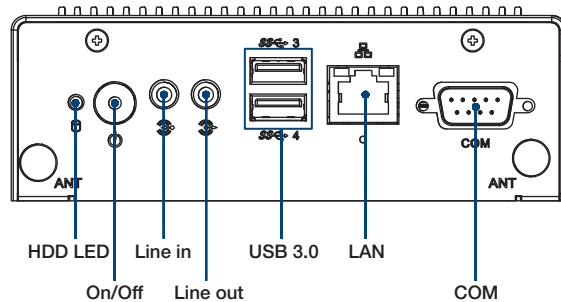
		ARK-1124H-S6A1E
Processor System	CPU	Intel Atom™ E3940 Quad Core Soc
	Frequency	1.6 GHz, turbo burst 1.8 GHz
	L2 Cache	2 MB
	BIOS	AMI EFI 64 bit
Memory	Technology	DDR3L 1866 MHz
	Max. Capacity	8 GB
	Socket	1 x 204-pin SO-DIMM
Graphics	Chipset	Intel® HD Graphics 500
	Graphic Engine	4K Codec Decode& Encode for H.264, MPEG2, MVC, VC-1, WMV9, H.265 / HEVC, VP8, JPEG / MJPEG
	HDMI	HDMI 1.4b 3840 x 2160 @ 30Hz
	Dual Display	Yes, HDMI + HDMI, dual display support 4K resolution
Ethernet	LAN1	10/100/1000 Mbps Intel i210 GbE, support Wake On Lan
	LAN2	10/100/1000 Mbps Intel i210 GbE, support Wake On Lan
Audio	Interface	Realtek ALC888S, High Definition Audio. Line-out, Line-in
IO Interface	Serial Ports	1 x RS-232/422/485 port with auto flow control
	USB Interface	4 x USB 3.0
Other	Watchdog timer	255 levels timer interval, setup by software
Expansion	Mini PCIe	1 x full-size mPCIe for WLAN/WWAN with nano SIM holder
	M.2	1 x M.2 E-key for WIFI
	iDoor	1, optional (2nd layer)
Storage	SSD/HDD	Supports 1 x 2.5" SATA III Drive Bay (Compatible with 9.5mm height)
	mSATA	1 x Half-size mSATA (by CTOS or T-PN)
Software Support	Microsoft Windows	Win 10 IoT Enterprise LTSB
	Linux	Support by project
Power Requirement	Power Type	AT/ATX
	Power Input Voltage	12V _{DC} (Optional 12~24V power module)
	Minimum Power Input	12 V, 5 A
	Power Adapter	AC to DC, DC12 V/5 A, 60 W with lockable DC Jack
Power Consumption	Typical	6.02W
	Max.	33.7W
Mechanical	Construction	Aluminum housing
	Mounting	DIN-Rail/Wall/VESA Mounting Kits (Optional)
	Dimensions (W x H x D)	133 x 46.4 x 94.2mm (5.24" x 1.83" x 3.71")
	Weight	0.7 Kg (1.55lb)
Environment	Operating Temperature	With extended temperature peripherals: -20 ~ 60 °C (-4 ~ 140 °F) with 0.7m/s air flow With 2.5-inch hard disk 0 ~ 40 °C (32 ~ 104 °F) with 0.7m/s air flow
	Storage Temperature	-40 ~ 85 °C (-40 ~ 185 °F)
	Relative Humidity	95% @ 40 °C (non-condensing)
	Vibration During Operation	With SSD: 3 Grms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 hr/axis. With HDD: 0.5Grms, IEC 60068-2-64, random, 5~500Hz, 3 axes, 1hr/axis
	Shock During Operation	With SSD: 30 G, IEC 60068-2-27, half sine, 11 ms duration With HDD: 10G, IEC 60068-2-27, half sine, 11 ms duration
	EMC	CE/FCC Class B, CCC, BSMI
	Safety Certifications	UL CB, CCC and BSMI

Dimensions

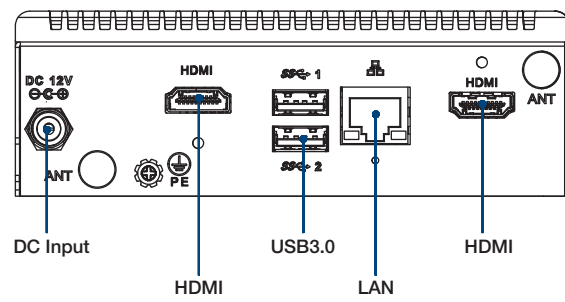
Unit: mm



Front Panel External I/O Mechanical Layout/Drawing



Rear Panel External I/O Mechanical Layout/Drawing



Ordering Information

Part No.	CPU	RAM	HDMI	GbE	USB 3.0	RS-232/422/485	Audio	Full-size MiniPCIe	SIM	M.2	2.5" SATA III HDD Bay	Power Input	Operating Temp.
ARK-1124H-S6A1E	Intel Atom E3940 1.6 GHz SoC	Up to 8GB	2	2	4	1	Lin-out, Line-in	1	1	1	1	12 V _{DC}	-20 ~ 60 °C

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

Packing List

Part Number	Description
-	1 x ARK-1124H Unit
-	1 x User Manual (Simplified Chinese)
96PSA-A60W12W6	A/D 100-240V 60W 12V C14 LOCKABLE DC PLUG
-	LAN clip
-	Wrench for top cover

Optional Embedded OS

Part Number	Description
20706WX6ES0016	Win10 IoT LTSB 64bit ENG for ARK-1124H

Optional Item for Default SKU

Part Number	Description
1702002600	Power cable 3-pin 183cm, USA type
1702002605	Power cable 3-pin 183cm, EU type
1702031801	Power cable 3-pin 183cm, UK type
1700000237	Power cable 3-pin 183cm, PSE type
AMK-W001E	ARK-112X series Wall mounting kit
AMK-V003E	ARK-112X series VESA mounting kit
AMK-R001E	ARK-112X series DIN-rail mounting kit
1700023855-01	1M lockable HDMI cable
1700023856-01	3M lockable HDMI cable

ARK Plus Extended Modules

ARK-1 124 Dual Layer Expansion Option Items

Expansion Kit Selection



AMO-1101 and iDoor



AMO-1101 and AMO-P011

Ordering Information

Optional ARK Plus Mechanical Kit

P/N	Description
AMO-1101	Mechanical kit for 2nd layer expansion

Optional iDoor Expansion

Part Number	Description
MOS-2230-Z1201E	CANBus module, 2-Ch, USB Interface
MOS-2220-X1101E	Parallel LPT module, 1-Ch, USB Interface
MOS-2110Z-1201E	USB module, 2-Ch, PCIe Interface
MOS-2120-Z1101E	Giga LAN Ethernet module, 1-Ch, PCIe Interface
MOS-1130Y-0201E	Isolated CANBus, 2-Ch, DB9, PCIe Interface
MOS-1110Y-0101E	Isolated 16 DI/8 DO, 1-Ch, DB37, PCIe Interface
MOS-2220-Z1101E	High Speed COM module, 1-Ch, USB Interface
MOS-1120Y-0202E	Isolated RS-232, 2-Ch, DB9, PCIe I/F
MOS-1121Y-0202E	Isolated RS-422/485, 2-Ch, DB9, PCIe I/F
MOS-1120Y-1402E	Non-Isolated RS-232, 4-Ch, DB37, PCIe I/F
MOS-1121Y-1402E	Non-Isolated RS-422/485, 4-Ch, DB37, PCIe I/F
MOS-2120-Z1201	Dual Intel I210 GbE LAN, 2-Ch, PCIe I/F

Optional 12-24V DC Power module

Part Number	Description
AMO-P011	12-24V DC input power module Operating temp. -20~60 °C
96PSA-A60W12P2-1	AC to DC ADP, 12V/5A 60W (for AMO-P011)
1702002600	Power cable 3-pin 183cm, USA type
1702002605	Power cable 3-pin 183cm, EU type
1702031801	Power cable 3-pin 183cm, UK type
1700000237	Power cable 3-pin 183cm, PSE type

* For iDoor module expansion, please order AMO-1101 and iDoor P/N

* For Wide range power module expansion, please order AMO-1101 and AMO-P011

* For iDoor and wide range power module expansion, please order AMO-1101, iDoor P/N and AMO-P011.

ARK-1124U

Intel Celeron N3350 DC SoC With Dual LAN/ Four USB 3.0/M.2/TPM IoT Gateway Modular Fanless Box PC

NEW



Features

- Intel Celeron N3350 Dual Core SoC
- VGA Display/2x RS-232/422/485/4x USB 3.0
- 1 x Full-size miniPCIe with SIM holder for communication module
- 1 x M.2 E-key for WIFI module
- 20 ~ 60 °C extended operating temperature
- TPM 2.0 default built-in
- 12V lockable DC jack power input
- Optional 12~24V power module (Dual Layer)
- Advantech iDoor module compatible (Dual Layer)
- Advantech WISE-PaaS/RMM support



WISE-PaaS/RMM

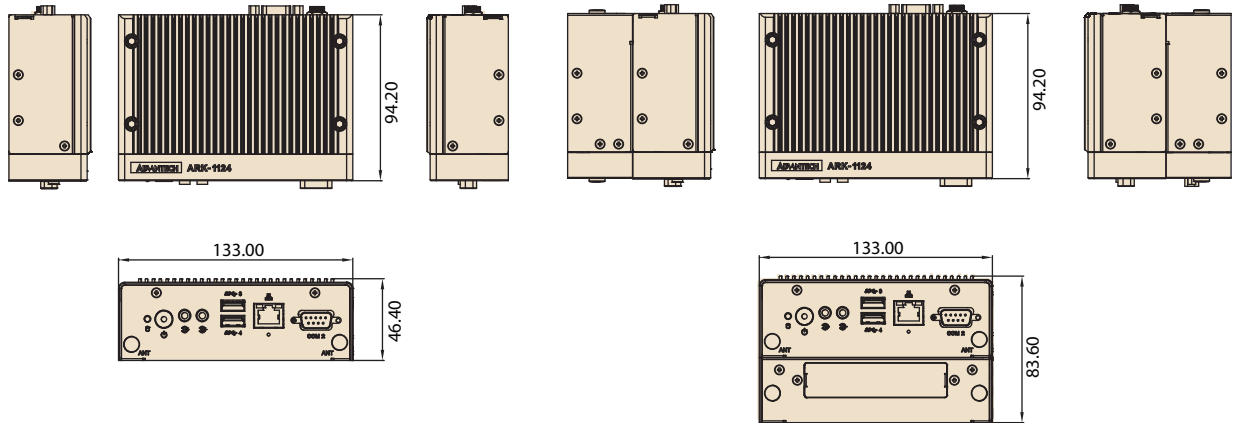


Specifications

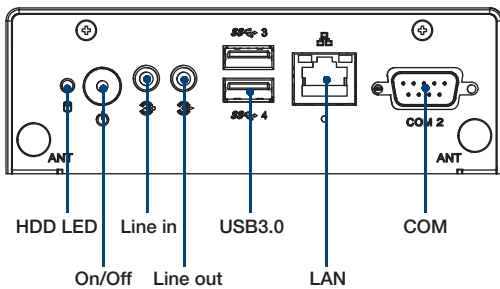
		ARK-1124U-S1A1E
Processor System	CPU	Intel® Celeron® N3350 Dual Core SoC
	Frequency	1.1GHz, turbo burst 2.4 GHz
	L2 Cache	2 MB
	BIOS	AMI EFI 64 bit
Memory	Technology	DDR3L 1866 MHz
	Max. Capacity	8 GB
	Socket	1 x 204-pin SO-DIMM
Graphics	Chipset	Intel® HD Graphics 500
	Graphic Engine	4K Codec Decode& Encode for H.264, MPEG2, MVC, VC-1, WMV9, H.265 / HEVC, VP8, JPEG / MJPEG
	VGA	Up to 2048 x 1280 @ 60Hz
Ethernet	LAN1	10/100/1000 Mbps Intel i210 GbE, support Wake On Lan
	LAN2	10/100/1000 Mbps Intel i210 GbE, support Wake On Lan
Audio	Interface	Realtek ALC888S, High Definition Audio. Line-out,,Line-in
IO Interface	Serial Ports	2 x RS-232/422/485 port with auto flow control
	USB Interface	4 x USB 3.0
Other	Watchdog timer	255 levels timer interval, setup by software
	TPM	Infineon SLB9665XQ 2.0
Expansion	Mini PCIe	1 x full-size mPCIe for WLAN/WWAN with SIM holder
	M.2	1 x M.2 E-key for WIFI (by CTOS or T-PN)
	iDoor	1, optional (2nd layer)
Storage	HDD/SSD	Supports 1 x SATA III Drive Bay (Compatible with 9.5mm height)
Software Support	Microsoft Windows	Win 10 IoT Enterprise LTSB
	Linux	Support by project
Power Requirement	Power Type	AT/ATX
	Power Input Voltage	12V _{dc} (Optional 12~24V power module)
	Minimum Power Input	12 V, 5 A
	Power Adapter	AC to DC, DC12 V/5 A, 60 W with lockable DC Jack
Power Consumption	Typical	5W
	Max.	33.7W
Mechanical	Construction	Aluminum housing
	Mounting	DIN-Rail/Wall/VESA Mounting Kits (Optional)
	Dimensions (W x H x D)	133 x 46.4 x 94.2mm (5.24" x 1.83" x 3.71")
	Weight	0.7 Kg (1.55lb)
Environment	Operating Temperature	With extended temperature peripherals: -20 ~ 60 °C (-4 ~ 140 °F) with 0.7m/s air flow With 2.5-inch hard disk 0 ~ 40 °C (32 ~ 104 °F) with 0.7m/s air flow
	Storage Temperature	-40 ~ 85 °C (-40 ~ 185 °F)
	Relative Humidity	95% @ 40 °C (non-condensing)
	Vibration During Operation	With SSD: 3 Grms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 hr/axis With HDD: 0.5Grms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 hr/axis
	Shock During Operation	With SSD: 30 G, IEC 60068-2-27, half sine, 11 ms duration With HDD: 10G, IEC 60068-2-27, half sine, 11 ms duration
	EMC	CE/FCC Class B, CCC, BSMI
	Safety Certifications	UL, CB, CCC, BSMI

Dimensions

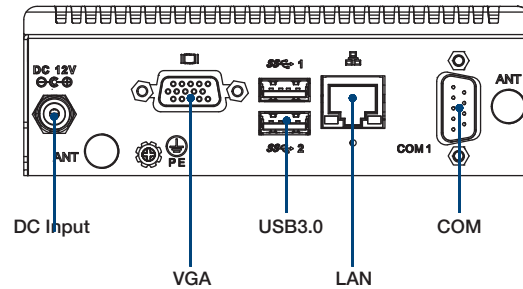
Unit: mm



Front Panel External I/O Mechanical Layout/Drawing



Rear Panel External I/O Mechanical Layout/Drawing



Ordering Information

Part No.	CPU	RAM	VGA	GbE	USB 3.0	RS-232/422/485	Audio	Full-size MiniPCIe	SIM	M.2	2.5" SATA III HDD Bay	Power Input	Operating Temp.
ARK-1124U-S1A1E	Intel Celeron N3350 1.1 GHz Soc	Up to 8GB	1	2	4	2	Lin-out, Line-in	1	1	1	1	12 V _{DC}	-20 ~ 60 °C

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

Packing List

Part Number	Description
-	1 x ARK-1124U Unit
-	1 x User Manual (Simplified Chinese)
96PSA-A60W12W6	1 x A/D 100-240V 60W 12V C14 LOCKABLE DC PLUG
-	LAN clip
-	Wrench for top cover

Optional Item for Default SKU

Part Number	Description
1702002600	Power cable 3-pin 183cm, USA type
1702002605	Power cable 3-pin 183cm, EU type
1702031801	Power cable 3-pin 183cm, UK type
1700000237	Power cable 3-pin 183cm, PSE type
AMK-W001E	ARK-112X series Wall mounting kit
AMK-V003E	ARK-112X series VESA mounting kit
AMK-R001E	ARK-112X series DIN-rail mounting kit

Optional Embedded OS

Part Number	Description
2070015302	Win10 IoT Ent LTSB 2016 64bit, ENG

ARK Plus Extended Modules

ARK-1 124 Dual Layer Expansion Option Items

Expansion Kit Selection



AMO-1101 and iDoor



AMO-1101 and AMO-P011

Ordering Information

Optional ARK Plus Mechanical Kit

P/N	Description
AMO-1101	Mechanical kit for 2nd layer expansion

Optional iDoor Expansion

Part Number	Description
MOS-2230-Z1201E	CANBus module, 2-Ch, USB Interface
MOS-2220-X1101E	Parallel LPT module, 1-Ch, USB Interface
MOS-2110Z-1201E	USB module, 2-Ch, PCIe Interface
MOS-2120-Z1101E	Giga LAN Ethernet module, 1-Ch, PCIe Interface
MOS-1130Y-0201E	Isolated CANBus, 2-Ch, DB9, PCIe Interface
MOS-1110Y-0101E	Isolated 16 DI/8 DO, 1-Ch, DB37, PCIe Interface
MOS-2220-Z1101E	High Speed COM module, 1-Ch, USB Interface
MOS-1120Y-0202E	Isolated RS-232, 2-Ch, DB9, PCIe I/F
MOS-1121Y-0202E	Isolated RS-422/485, 2-Ch, DB9, PCIe I/F
MOS-1120Y-1402E	Non-Isolated RS-232, 4-Ch, DB37, PCIe I/F
MOS-1121Y-1402E	Non-Isolated RS-422/485, 4-Ch, DB37, PCIe I/F
MOS-2120-Z1201	Dual Intel I210 GbE LAN, 2-Ch, PCIe I/F

Optional 12-24V DC Power module

Part Number	Description
AMO-P011	12-24V DC input power module Operating temp. -20~60 °C
96PSA-A60W12P2-1	AC to DC ADP, 12V/5A 60W (for AMO-P011)
1702002600	Power cord 3-pin 183cm, USA type
1702002605	Power cord 3-pin 183cm, EU type
1702031801	Power cord 3-pin 183cm, UK type
1700000237	Power cable 3-pin 183cm, PSE type

* For iDoor module expansion, please order AMO-1101 and iDoor P/N

* For Wide range power module expansion, please order AMO-1101 and AMO-P011

* For iDoor and wide range power module expansion, please order AMO-1101, iDoor P/N and AMO-P011

* Dual layer mounting kit is same as single layer

ARK-1220F

Intel Atom E3940 QC SoC with isolated GbE and COM ports DIN-Rail Fanless Box PC

NEW



Features

- Intel Atom E3940 Quad Core SoC turbo burst up to 1.8 GHz
- DIN-Rail system with essential I/O ports on front-side bezel
- 2 x Isolated Intel GbE with protection to 2.5K V_{DC}
- 2 x Isolated COM with protection to 2.5K V_{DC}
- Isolated 8 bit GPIO (4DI/4DO) with protection to 2.5K V_{DC}
- 4 x USB 3.0 and 1 x USB 2.0
- Dual independent displays with one 4K HDMI and one VGA
- 1 x full-size mPCIe with nano SIM holder and 1 x M.2 2230 for WIFI
- mSATA and 1 x 2.5" SATA storage device
- 12V ~ 28V wide range power input
- -30 ~ 60 °C extended operating temperature
- Advantech DeviceOn support



WISE-DeviceOn SUSI API

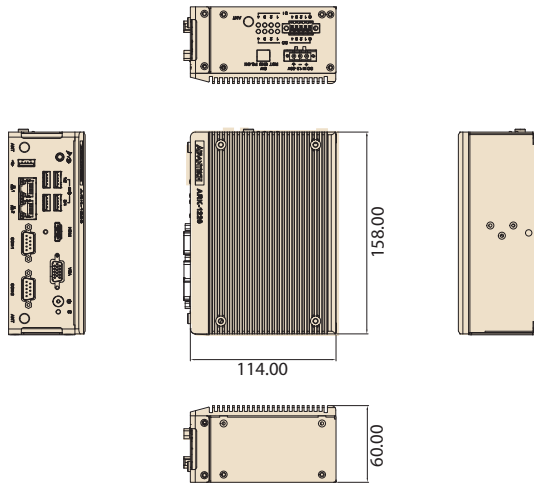


Specifications

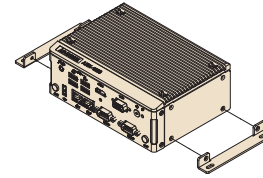
Model Name		ARK-1220F-S6A1
Processor System	CPU	Intel Atom E3940 Quad Core SoC
	Frequency	1.6 GHz, turbo burst up to 1.8 GHz
	Core Number	4
	BIOS	AMI EFI 128 Mbit
Memory	Technology	DDR3L 1866 Mhz
	Max capacity	8GB
	Socket	2 x 204-pin SO-DIMM, 2 x 4GB or 1 x 8GB memory
Graphics	Chipset	Intel HD Graphics 500, CPU integrated
	Graphic Engine	Gen9 Low Power; 18 Execution Units Media Codec Supported: H.264, MPEG2, MVC, VC-1, WMV9, H.265 / HEVC, VP8, JPEG / MJPEG 3D HW Acceleration: OpenGL 4.4, DirectX* 12, OpenCL* 2.0
	HDMI	Up to 3840 x 2160 @ 30Hz
	VGA	Up to 1920 x 1200 @ 60 Hz
Ethernet	Dual Display	HDMI + VGA
	LAN1	10/100/1000 Mbps Intel i210-IT GbE, support Wake On LAN
Audio	LAN2	10/100/1000 Mbps Intel i210-IT GbE, support Wake On LAN
	Interface	Realtek ALC888S, High Definition Audio, Mic-in, Line-out
I/O Interface	Serial Ports	1 x 2.5K V _{DC} Isolated RS232/RS422/RS485 1 x 2.5K V _{DC} Isolated RS422/RS485 (default RS485 for both ports)
	USB Ports	4 x USD3.0, 1 x USB2.0
	GPIO	8-bit Programmable DIO
Expansion	Mini PCIe	1 x Full-size mPCIe with nano SIM holder
	M.2	1 x M.2 2230 E key for WIFI module
Storage	SSD/HDD	1 x 2.5" SATAIII Drive bay (compatible with 15mm height)
	mSATA	1 x Full-size mSATA (*share with mPCIe slot)
Other	WatchDog Timer	255 levels timer interval, setup by software
	TPM	SLB9665XQ2.0 FW5.62
Software Support	Microsoft Windows	Windows 10 Enterprise
	Linux	Support by project
Power Requirement	Power Type	ATX/AT
	Power Input Voltage	12 ~ 28 V _{DC}
	Power Adaptor	AC to DC, 60W (Optional)
Power Consumption	Typical	7.6W
	Max.	19W
Mechanical	Construction	Aluminum housing
	Mounting	DIN-rail/Wall Mount
	Dimensions (W x H x D)	60 x 158 x 114 mm (2.34" x 6.22" x 4.49")
	Weight	1.5 kg (3.3lb)
Environment	Operating Temperature	With extended temp. peripherals: -30 ~ 60 °C (-22 ~ 140 °F) with 0.7 m/s air flow
	Storage Temperature	-40 ~ 85 °C (-40 ~ 185°F)
	Relative Humidity	95% @ 40 °C (non-condensing)
	Vibration during Operation	With SSD: 3 Grms, IEC60068-2-64, random, 5-500 Hz, 1hr/axis
	Shock during Operation	With SSD: 30 G, IEC-60068-2-27, half sine, 11 ms duration
	EMC	Heavy industrial certificates, CE/FCC Class B
	Safety	UL, CB, CCC and BSMI

Dimensions

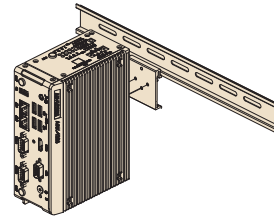
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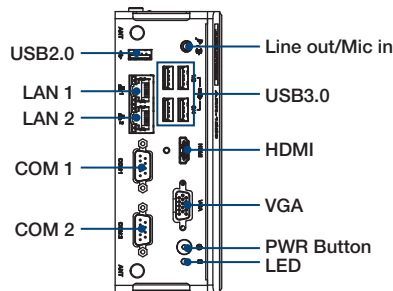
Wall Mount



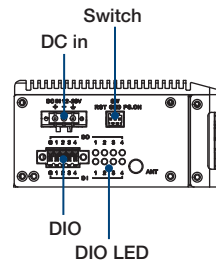
DIN Rail



Front Panel External I/O Mechanical Layout/Drawing



Top Panel External I/O Mechanical Layout/Drawing



Ordering Information

Part No.	CPU	RAM	HDMI	VGA	GbE	USB 3.0	USB 2.0	RS-232/422/485	Audio	Full-size MiniPCIe	SIM	M.2	2.5" SATA III HDD Bay	mSATA	Power Input	Operating Temp.
ARK-1220F-S6A1	Intel Atom E3940 1.6 GHz SoC	Up to 8GB	1	1	2	4	1	2	Mic-in, Line-out	1	1	1	1	1 (shared w/ mPCIe)	12-28 V _{DC}	-30 ~ 60 °C

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

Packing List

Part Number	Description
-	1 x ARK-1220L Unit
-	1 x User Manual (Simplified Chinese)
-	Wrench for top cover
1960015198T011	1x DIN-rail bracket
1652004519	1x 3-pin plug-in block for power in
1652007619-01	1 x 10-pin plug-in block for DIO
1652008227-01	1 x 3-pin terminal block for switch

Optional Items

Part Number	Description
96PSA-A60W24T2-3	AC to DC Adaptor, 24V/2.5A 60W
1702002600	Power cable 3-pin 183cm, USA type
1702002605	Power cable 3-pin 183cm, EU type
1702031801	Power cable 3-pin 183cm, UK type
1700000237	Power cable 3-pin 183cm, PSE type
1700023855-01	1M lockable HDMI cable
1700023856-01	3M lockable HDMI cable
AMK-W004	ARK-1220F wall mount kit

Embedded OS

Part Number	Description
	Win10 IoT Ent 2019 LTSC 64bit, English

ARK-1220L

Intel Atom E3940 QC SoC with 4K Dual HDMI/Dual LAN/M.2 DIN-Rail Fanless Box PC

NEW



Features

- Intel Atom E3940 Quad Core SoC turbo burst up to 1.8 GHz
- DIN-Rail system with essential I/O ports on front-side bezel
- 2 x Intel GbE and 4 x USB 3.0
- Dual HDMI display up to 4K resolution
- 1 x full-size mPCIe with SIM holder and 1 x M.2 2230 for WIFI
- 1 x 2.5" SATA III SSD and 1 x full-size mSATA*
- 12V ~ 28V wide range power input
- 30 ~ 70 °C extended operating temperature
- Advantech WISE-PaaS support

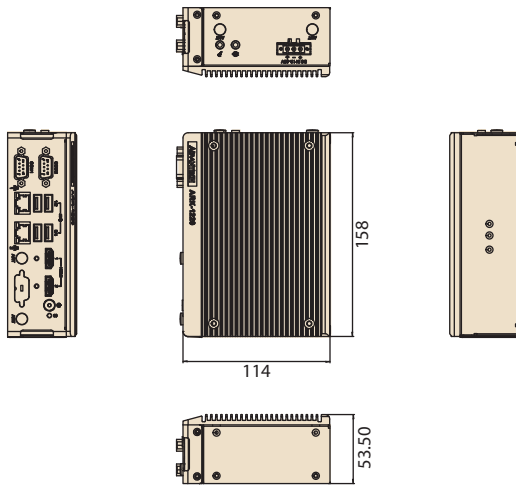


Specifications

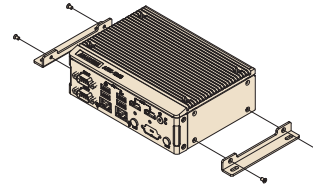
Model Name	ARK-1220L-S6A1E	
Processor System	CPU	Intel Atom E3940 Quad Core SoC
	Frequency	1.6 GHz, turbo burst up to 1.8 GHz
	Core Number	4
	BIOS	AMI EFI 64 Mbit
Memory	Technology	DDR3L 1866 Mhz
	Max capacity	8GB
	Socket	2 x 204-pin SO-DIMM, 2 x 4GB or 1 x 8GB memory
Graphics	Chipset	Intel HD Graphics 500, CPU integrated
	Graphic Engine	Gen9 Low Power: 18 Execution Units Media Codec Supported: H.264, MPEG2, MVC, VC-1, WMV9, H.265 / HEVC, VP8, JPEG / MJPEG 3D HW Acceleration: OpenGL 4.4, DirectX* 12, OpenCL* 2.0
	HDMI	HDMI1 : 3840 x 2160 @ 30Hz HDMI2 : 3840 x 2160 @ 30Hz
	Dual Display	HDMI1 + HDMI2
Ethernet	LAN1	10/100/1000 Mbps Intel i210GbE, support Wake On LAN
	LAN2	10/100/1000 Mbps Intel i210GbE, support Wake On LAN
Audio	Interface	Realtek ALC888S, High Definition Audio, Mic-in, Line-out
I/O Interface	Serial Ports	2 x RS-232/422/485 with auto flow control, COM2 with 5V/12V power supply
	USB Ports	4 x USB 3.0
	GPIO	8-bit Programmable DIO (Optional)
Expansion	Mini PCIe	1 x Full-size mPCIe with SIM holder
	M.2	1 x M.2 2230 E key for WIFI module
Storage	SSD/HDD	1 x 2.5" SATAIII Drive bay (compatible with 15mm height)
	mSATA	1 x Full-size mSATA (*share with mPCIe slot)
Other	WatchDog Timer	255 levels timer interval, setup by software
	TPM	SLB9665XQ2.0 FW5.62 (Support by project)
Software Support	Microsoft Windows	Windows 10 Enterprise
	Linux	Support by project
Power Requirement	Power Type	ATX/AT
	Power Input Voltage	12 ~ 28 V _{DC}
	Power Adaptor	AC to DC, 60W (Optional)
Power Consumption	Typical	7.6W
	Max.	19W
Mechanical	Construction	Aluminum housing
	Mounting	DIN-rail/Wall Mount
	Dimensions (W x H x D)	53.5 x 158 x 114 mm (2.11" x 6.22" x 4.49")
	Weight	1.2 kg (2.65lb)
Environment	Operating Temperature	With extended temp. peripherals: -30 ~ 70 °C (-22 ~ 158 °F) with 0.7 m/s air flow With 2.5 inch hard disk: 0 ~ 40 °C (32 ~ 104 °F) with 0.7 m/s air flow
	Storage Temperature	-40 ~ 85 °C (-40 ~ 185°F)
	Relative Humidity	95% @ 40 °C (non-condensing)
	Vibration during Operation	With SSD: 3 Grms, IEC60068-2-64, random, 5~500 Hz, 1hr/axis
	Shock during Operation	With SSD: 30 G, IEC-60068-2-27, half sine, 11 ms duration
	EMC	CE/FCC Class B, CCC, BSMI
	Safety	UL, CB, CCC and BSMI

Dimensions

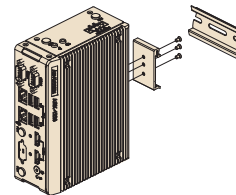
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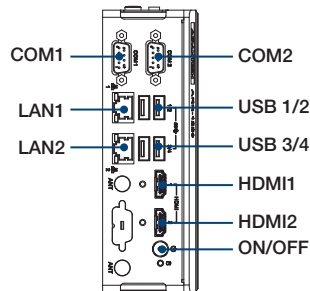
Wall Mount



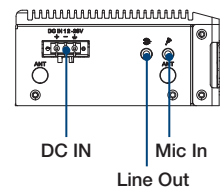
DIN Rail



Front Panel External I/O Mechanical Layout/Drawing



Top Panel External I/O Mechanical Layout/Drawing



Ordering Information

Part No.	CPU	RAM	HDMI	GbE	USB 3.0	RS-232/422/485	Audio	Full-size MiniPCIe	SIM	M.2	2.5" SATA III HDD Bay	mSATA	Power Input	Operating Temp.
ARK-1220L-S6A1E	Intel Atom E3940 1.6 GHz SoC	Up to 8GB	2	2	4	2	Mic-in, Line-out	1	1	1	1	1 (shared w/ mPCIe)	12-28 V _{oc}	-30 ~ 70 °C

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

Packing List

Part Number	Description
-	1 x ARK-1220L Unit
-	1 x User Manual (Simplified Chinese)
-	Wrench for top cover
1960015198T011	1x DIN-rail bracket
1652004519	1x 3-pin terminal block

Embedded OS

Part Number	Description
20706WX9ES0001	Win10 IoT Ent 2019 LTSC 64bit, English (14.7GB)

Optional Items

Part Number	Description
96PSA-A60W24T2	AC to DC Adaptor, 24V/2.5A 60W
1702002600	Power cable 3-pin 183cm, USA type
1702002605	Power cable 3-pin 183cm, EU type
1702031801	Power cable 3-pin 183cm, UK type
1700000237	Power cable 3-pin 183cm, PSE type
1700023855-01	1M lockable HDMI cable
1700023856-01	3M lockable HDMI cable
1700019967	GPIO cable, F Cable 2*5P-2.0/D-SUB 9P(F) 15CM
AMK-W003	ARK-1220L wall mount kit

ARK-1221L

Intel Atom x6413E QC SoC with HDMI and DP/Dual LAN/Dual COM DIN-Rail Fan-less Box PC

NEW



Features

- Intel Atom x6413E Quad Core SoC turbo burst up to 3.00 GHz
- DIN-Rail system with essential I/O ports on front-side bezel
- 2 x Intel GbE and 2 x RS-232/422/485
- Dual independent displays with one 4K HDMI and one 4K DP
- 1 x M.2 2280 B key with nano SIM holder and 1 x M.2 2230 E key
- 2 x USB 3.2 and 2 x USB 2.0
- 1 x full-size mPCIe
- mSATA and 1 x 2.5" SATA storage device
- 12V ~ 28V wide range power input
- -40 ~ 60 °C extended operating temperature
- Advantech DeviceOn support



WISE-DeviceOn SUSI API



Specifications

Model Name	ARK-1221L-S5A1	
Processor System	CPU	Intel Atom x6413E Quad Core SoC
	Frequency	1.50 GHz, turbo burst up to 3.00 GHz
	Core Number	4
	BIOS	AMI EFI 256 Mbit
Memory	Technology	DDR4 3200 MHz
	Max capacity	32 GB
	Socket	2 x 260-pin SO-DIMM, 2 x 16 GB or 1 x 32 GB memory
Graphics	Chipset	Intel® UHD Graphics for 10th Gen Intel® Processors
	HDMI	Up to 4096 x 2160 @ 60 Hz
	DP	Up to 4096 x 2160 @ 60 Hz
	Dual Display	HDMI + DP
Ethernet	LAN1	Intel i225-LM, 2.5GbE, support Wake On LAN
	LAN2	Intel i225-LM, 2.5GbE, support Wake On LAN
Audio	Interface	Realtek ALC888S, High Definition Audio, Mic-in, Line-out
I/O Interface	Serial Ports	2 x RS-232/422/485 (default RS-232) with auto flow control
	USB Ports	2 x USB3.2, 2 x USB2.0, 1 x internal USB2.0 for security dongle
	GPIO	8-bit Programmable DIO
	Optional CANbus	1 x CANBus 2.0 (DB9 connector)
Expansion	Mini PCIe	1 x Full-size mPCIe
	M.2	1 x M2, 2230 E key and 1 x M.2 2280 B key with nano SIM holder #1
Storage	SSD/HDD	1 x 2.5" SATAIII Drive bay (compatible with 15mm height)
	mSATA	1 x Full-size mSATA (*share with mPCIe slot)
Other	WatchDog Timer	255 levels timer interval, setup by software
	TPM	TPM 2.0 (project support by AMO-I029)
Software Support	Microsoft Windows	Windows 10 Enterprise
	Linux	Ubuntu 20.04
Power Requirement	Power Type	ATX/AT
	Power Input Voltage	12 ~ 28 V _{DC}
	Power Adaptor	AC to DC, 60W (Optional)
Power Consumption	Typical	9.6W (OS idle mode)
	Max.	18.96W (Full loading)
Mechanical	Construction	Aluminum housing
	Mounting	DIN-rail/Wall Mount
	Dimensions (W x H x D)	60 x 158 x 114 mm (2.34" x 6.22" x 4.49")
	Weight	1.05 kg (2.31lb)
Environment	Operating Temperature	With extended temp. peripherals: -40 ~ 60 °C (-40 ~ 140 °F) with 0.7 m/s air flow
	Storage Temperature	-40 ~ 85 °C (-40 ~ 185°F)
	Relative Humidity	95% @ 40 °C (non-condensing)
	Vibration during Operation	With SSD: 3 Grms, IEC60068-2-64, random, 5~500 Hz, 1hr/axis (with Wall Mount)
	Shock during Operation	With SSD: 30 G, IEC-60068-2-27, half sine, 11 ms duration (with Wall Mount)
	EMC	CE/FCC Class B, CCC, BSMI, UKCA
	Safety	UL, CB, CCC and BSMI, UKCA

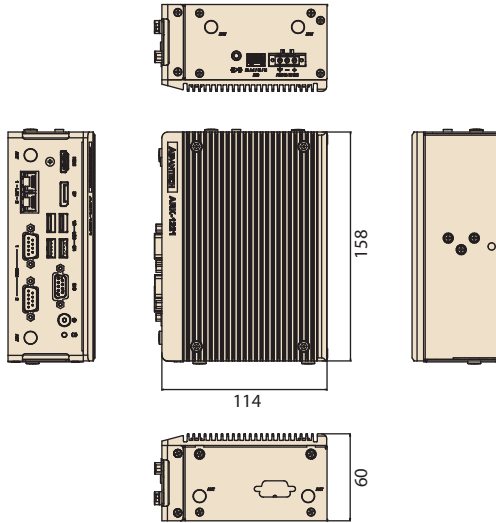
#1 SIM holder and M.2 slot are hardware interfaces for wireless communication integration only. System level RF certification is not available.

M.2 B key supports only PCIe x 2 and USB

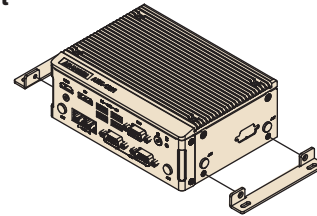
M.2 B key requires additional mechanical parts to fix for sizes other than 2280.

Dimensions

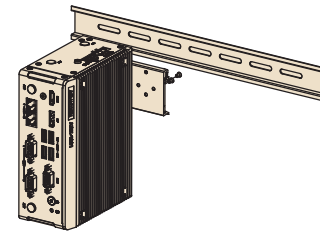
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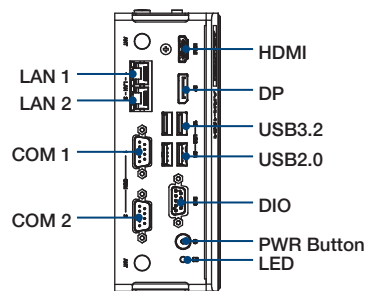
Wall Mount



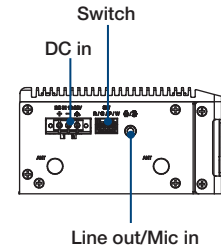
DIN Rail



Front Panel External I/O Mechanical Layout/Drawing



Top Panel External I/O Mechanical Layout/Drawing



Ordering Information

Part No.	CPU	RAM	HDMI	DP	GbE	USB 3.2	USB 2.0	RS-232/422/485	Audio	Full-size MiniPCIe	SIM	M.2	2.5" SATA III HDD Bay	mSATA	Power Input	Operating Temp.
ARK-1221L-S5A1	Intel Atom x6413E 1.50 GHz SoC	Up to 32 GB	1	1	2	2	2	2	Mic in or Line out	1	1	2	1	1 (shared w/ mPCIe)	12-28 V _{dc}	-40 ~ 60 °C

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

Packing List

Part Number	Description
-	1 x ARK-1221L Unit
-	1 x User Manual (Simplified Chinese)
-	Wrench for top cover
1960015198T011	1x DIN-rail bracket
1652004519	1x 3-pin plug-in block for power in
1652007880-01	1 x 4-pin terminal block for switch

Embedded OS

Part Number	Description
20706WX9ES0168	Win10 IoT Ent 2019 LTSC 64bit, English
20706U20DS0041	img Ubuntu20.4 ARK-1221L 64b 2004 ENU

Optional Items

Part Number	Description
96PSA-A60W24T2-3	AC to DC Adaptor, 24V/2.5A 60W
1702002600	Power cable 3-pin 183cm, USA type
1702002605	Power cable 3-pin 183cm, EU type
1702031801	Power cable 3-pin 183cm, UK type
1700000237	Power cable 3-pin 183cm, PSE type
1700023855-01	1M lockable HDMI cable
1700023856-01	3M lockable HDMI cable
AMK-W004	ARK-1220F wall mount kit
1700030518-01	CANBus Cable

ARK-1551

Intel® 8th Generation Core™ i5/Celeron Slim Fanless Computer

NEW



Features

- 8th Gen Intel® Core™ i5/Celeron
- Dual DDR4 2400MHz SO-DIMM memory up to 32G
- 1 x swappable 2.5" SATA HDD drive bay and 1 x mSATA slot, supports Intel software RAID 0/1
- 4 x USB 3.1 Gen 2, 2 x Intel GbE LAN, 4 x RS-232/422/485, 8 bit GPIO
- 4K2K HDMI and VGA dual independent displays
- 1 x full-size mPCIe with SIM holder and 1 x M.2 2230 E Key
- Support Advantech SQF PCIe2 NVMe storage
- 12V - 24V @ -10%/+20% wide range power input
- Advantech DeviceOn built-in for easy manageability



WISE-PaaS/ DeviceOn SUSI API

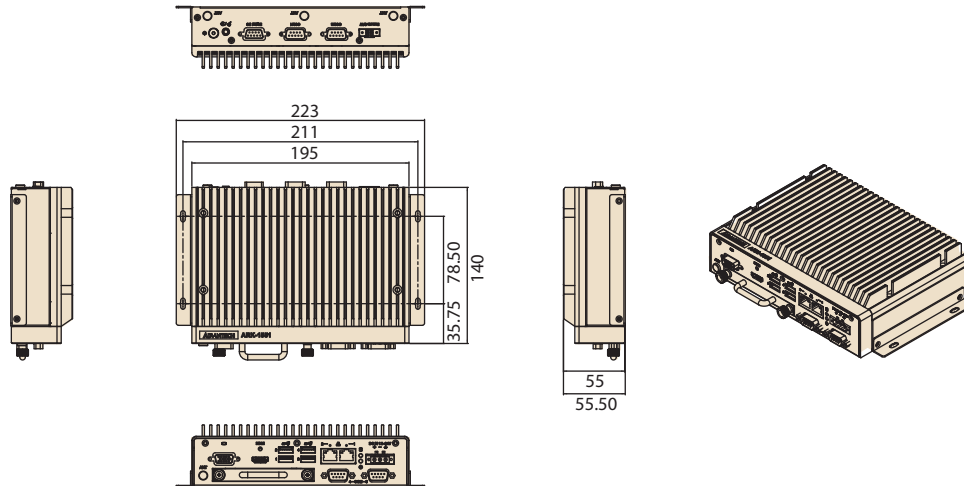


Specifications

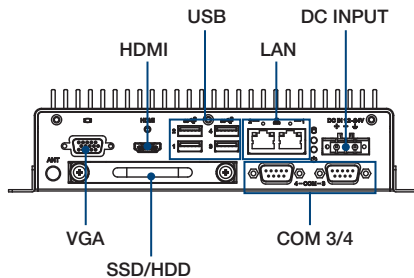
Model Name		ARK-1551-S6A1	ARK-1551-U0A1
Processor System	CPU	Intel® Core i5-8365UE	Celeron 4305UE
	Frequency	1.6 GHz, turbo burst up to 4.1 GHz	2.0 GHz
	Core Number	4	2
	L3 Cache	6MB	2MB
	BIOS	AMI UEFI 256Mbit	
Memory	Technology	DDR4 2400MHz	
	Max capacity	32GB, each memory slot support up to 16GB	
	Socket	2 x 260-pin SO-DIMM	
Graphics	Chipset	Intel UHD Graphics 620	Intel HD Graphics 610
	Graphic Engine	Gen9 Low Power; 24 (UHD 620) /12(UHD 610) Execution Units Media Codec Supported: H.264, MPEG2, MVC, VC-1, WMV9, H.265 / HEVC 3D HW Acceleration: OpenGL 4.5, DirectX* 11.3/12, OpenCL* 2.1	
	Display Interface	HDMI: 1 x HDMI 1.4b, 4096 x 2160@30Hz VGA: 1 x VGA, 1920 x 1080@ 60Hz DP: 1 x DP 1.2, 4096 x 2304 @ 60Hz (*co-lay with VGA, by project support with MOQ = 30)	
	Dual Display	HDMI + VGA (Default) ; HDMI + DP (By project support, MOQ 30)	
Ethernet	LAN1	10/100/1000 Mbps Intel i210GbE, support Wake On LAN	
	LAN2	10/100/1000 Mbps Intel i219GbE, support Wake On LAN	
Audio	Interface	Realtek ALC892, High Definition Audio, Mic-in or Line-out	
I/O Interface	Serial Ports	4 x RS-232/422/485 support from 50 bps to 921.6 kbps, with auto flow control. COM3 with 5V/12V power, by jumper setting	
	USB Ports	4 x USB 3.1 Gen2, Type A connector	
	GPIO	8-bit programmable DIO	
Expansion	Mini PCIe	1 x full-size mPCIe with 1x nano SIM holder (PCIe x2, USB 2.0x1, UIM, SATA x1)	
	M.2	1 x M.2 2230 E key for WiFi module (PCIe x2, USB 2.0x1)	
Storage	SSD/HDD	1 x Swappable 2.5" SATAIII drive bay (compatible with 7mm height)	
	mSATA	1 x full-size mSATA (share with mPCIe slot)	
	PCIe	Support 2x Advantech SQF PCIe2 NVMe storage (1 x M.2 2230 E Key + 1 x mPCIe)	
Other	WatchDog Timer	255 levels timer interval, setup by software	
	TPM	SLB9665XQ2.0 (Support by project)	
	Case Open	Support	
Software Support	Microsoft Windows	Windows 10 Enterprise	
	Linux	Support by project	
Power Requirement	Power Type	ATX/AT	
	Power Input Voltage	12 ~ 24 V _{oc} @ -10%/+20%	
	Power Adaptor	Celeron 4305UE: AC to DC, 90W (Optional) i5-8365UE: AC to DC, 90W for 0 ~ 40 °C (Optional) AC to DC, 120W for -20 ~ 55 °C (Optional)	
Power Consumption	Typical	13.87 Watt	8.93 Watt
	Max.	47.12Watt	24.7 Watt
Mechanical	Construction	Aluminum housing	
	Mounting	Wall Mounting (Default); VESA & DIN-Rail Mounting (Optional)	
	Dimensions (W x H x D)	195 x 55 x 140 mm (7.68" x 2.16" x 5.52")	
	Weight	Net Weight: 1.9KG; Gross Weight: 2.6KG	
Environment	Operating Temperature	With extended temp. peripherals: -20 ~ 55 °C (-4 ~ 131 °F) with 0.7 m/s air flow With 2.5 inch hard disk: 0 ~ 40 °C (32 ~ 104 °F) with 0.7 m/s air flow	
	Storage Temperature	-40 ~ 85 °C (-40 ~ 185°F)	
	Relative Humidity	95% @ 40 °C (non-condensing)	
	Vibration during Operation	With SSD: 3 Grms, IEC60068-2-64, random, 5-500 Hz, 1hr/axis	
	Shock during Operation	With SSD: 30 G, IEC-60068-2-27, half sine, 11 ms duration	
	EMC	CE/FCC Class B, CCC, BSMI	
	Safety	UL, CB, CCC and BSMI	

Dimensions

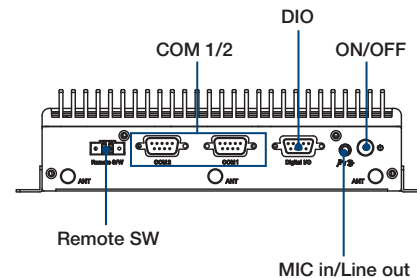
Unit: mm



Front Panel External I/O View



Rear Panel External I/O View



Ordering Information

Part No.	CPU	RAM	Display	GbE	USB 3.1 Gen 2	RS-232/422/485	Audio	Full-size MiniPCIe	SIM	M.2	2.5" SATA III HDD Bay	mSATA	Power Input	Operating Temp.
ARK-1551-S6A1	Intel® Core i5-8365UE Q/C SoC	Up to 32GB**	HDMI x 1 VGA x 1	2	4	4	Mic-in or Line-out	1	1	1	1 x swappable HDD Bay**	1 (shared w/ mPCIe)**	12-24 Vdc	-20 ~ 55 °C*
ARK-1551-U0A1	Celeron 4305UE D/C SoC	Up to 32GB**	HDMI x 1 VGA x 1	2	4	4	Min-in or Line-out	1	1	1	1 x swappable HDD Bay**	1 (shared w/ mPCIe)**	12-24 Vdc	-20 ~ 55 °C*

*CPU condition: Turbo boost on with 0.7 air flow

** Memory, storage and operating system bundled by request.

Packing List

Part Number	Description
-	1 x ARK-1551 unit
-	1 x user manual (Simplified Chinese)
-	1 x wrench for top cover
-	1 x 3-pin terminal block
-	1 x 2-pin terminal block for remote power switch
-	WISE-PaaS/DeviceOn Package
-	2 x LAN Clip
-	1 x wall mount kit

Embedded OS

Part Number	Description
20706WX9VS0089	Win10 IoT Ent 2019 Value LTSC 64bit, English

Optional Items

Part Number	Description
XARK-ADP-90MDH	AC to DC adaptor , 19V/90W
96PSA-A120W24T2-3	AC to DC adaptor, 24V/120W
1700001524	Power Cable 3-pin 180cm, USA type (for XARK-ADP-90MDH)
170203183C	Power Cable 3-pin 180cm, Europe type (for XARK-ADP-90MDH)
170203180A	Power Cable 3-pin 180cm, UK type (for XARK-ADP-90MDH)
1700008921	Power Cable 3-pin PSE Mark 183cm (for XARK-ADP-90MDH)
1702002600	Power cable 3-pin 183cm, USA type (for 96PSA-A120W24T2-3)
1702002605	Power cable 3-pin 183cm, EU type (for 96PSA-A120W24T2-3)
1702031801	Power cable 3-pin 183cm, UK type (for 96PSA-A120W24T2-3)
1700000237	Power cable 3-pin 183cm, PSE type (for 96PSA-A120W24T2-3)
1700023855-01	1M lockable HDMI cable
1700023856-01	3M lockable HDMI cable
AMK-V019E	VESA mounting kit
AMK-R005E	DIN-rail mounting kit

Ei-A110

Edge Intelligence System Powered By WISE-DeviceOn

NEW



Features

- Integrated hardware plus software to build up edge-to-cloud applications
- Powered by WISE-DeviceOn for IoT device remote and operation management
- Pre-configured system: Intel® Celeron® N3350 dual core, Windows 10 IoT Enterprise, 4G DDR3L memory and 64G SSD
- DIN-Rail system with essential I/O ports on front-side bezel
- 12V ~ 28V wide range power input
- -30 ~ 70 °C extended operating temperature

WISE-DeviceOn  **WISE-Marketplace**

Introduction

To fulfill customer requirements in edge computing trend, Advantech offers Ei-A110 Edge Intelligence System integrated hardware plus software solution powered by WISE-DeviceOn. It allows users to incorporate sensor data aggregation, edge analytics, and cloud integration for fast and easy real-time edge intelligence, and plus the flexibility to add on more software modules from the WISE-PaaS marketplace that enable IoT connectivity, data manageability and analytics in the edge.

WISE-DeviceOn Function Highlights



Device Management

- Remote Monitoring & Control
- Device Onboarding & Registration



Connectivity Service

- Industrial Protocol Connectivity
- Plug-n-Play Peripherals



System Security

- McAfee Application Control
- Acronis Backup Recovery



Edge Intelligence

- Real-Time Data Processing
- Data Analysis & Filtering



Cloud Integration

- Pre-Configured with Azure, Ali, AWS
- Data Intelligence & AI Enabling



WISE-Marketplace Integration

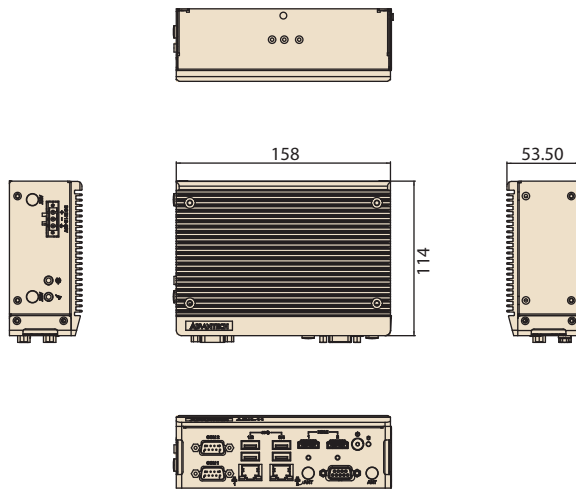
- Over 200+ I.App Offerings
- Easy to Purchase and Deploy

Specifications

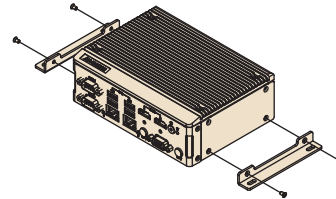
Model Name	Ei-A110	
Processor System	CPU	Intel Celeron N3350 Dual Core SoC, 1.1GHz, turbo burst up to 2.4GHz
Memory	Technology	DDR3L 1866 Mhz, 1x 4GB (-40 ~ 85°C) built-in
	Chipset	Intel HD Graphics 500, CPU integrated
Graphics	Graphic Engine	Gen9 Low Power; 18 Execution Units Media Codec Supported: H.264, MPEG2, MVC, VC-1, WMV9, H.265 / HEVC, VP8, JPEG, MJPEG 3D HW Acceleration: OpenGL 4.4, DirectX* 12, OpenCL* 2.0
	HDMI	HDMI1/2: 3840 x 2160 @ 30Hz, dual display
Ethernet	LAN1/2	10/100/1000 Mbps Intel i210GbE, support Wake On LAN
Audio	Interface	Realtek ALC888S, High Definition Audio, Mic-in, Line-out
	Serial Ports	2 x RS-232/422/485 with auto flow control, COM2 with 5V/12V power supply
I/O Interface	USB Ports	4 x USB 3.0
	GPIO	8-bit Programmable DIO (Optional)
Expansion	Mini PCIe	1 x Full-size mPCIe with SIM holder
	M.2	1 x M.2 2230 E key for WIFI module
Storage	SSD/HDD	1 x 2.5" 64G MLC SSD (-40~85°C) built-in
	mSATA	1 x Full-size mSATA (*share with mPCIe slot)
Other	TPM	SLB9665XQ2.0 FW 5.62 built-in
	WatchDog Timer	255 levels timer interval, setup by software
Software Support	Microsoft Windows	Windows 10 IoT Enterprise built-in
Power Requirement	Power Input Voltage	12 ~ 28 V _{dc}
	Power Adaptor	AC to DC, 24V/2.5A 60W adaptor built-in
Power Consumption	Typical	6.4W
	Max.	18.1W
Mechanical	Mounting	DIN-rail/Wall Mount
	Dimensions (W x H x D)	53.5 x 158 x 114 mm (2.11" x 6.22" x 4.49")
	Weight	1.2 kg (2.65lb)
Environment	Operating Temperature	With extended temp. peripherals: -30 ~ 70 °C (-22 ~ 158 °F) with 0.7 m/s air flow
	Vibration during Operation	With SSD: 3 Grms, IEC60068-2-64, random, 5-500 Hz, 1hr/axis
	Shock during Operation	With SSD: 30 G, IEC-60068-2-27, half sine, 11 ms duration
	EMC	CE/FCC Class B, CCC, BSMI
	Safety	UL, CB, CCC and BSMI

Dimensions

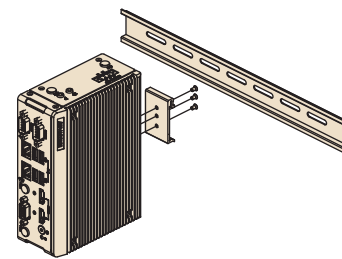
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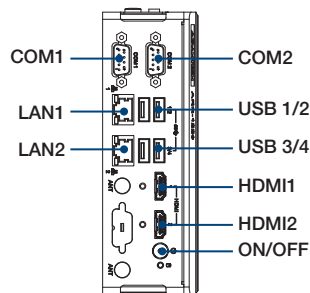
Wall Mount



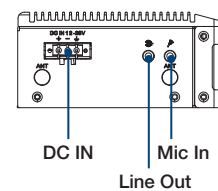
DIN Rail



Front Panel External I/O Mechanical Layout/Drawing



Top Panel External I/O Mechanical Layout/Drawing



Ordering Information

Part No.	CPU	RAM	HDMI	GbE	USB 3.0	RS-232/422/485	Audio	Full-size MiniPCIe	M.2	2.5" SATA III HDD Bay	mSATA	Power Input	OS	Operating Temp.
Ei-A110-S1A1	Intel Celeron N3350 1.1 GHz SoC	4GB built-in	2	2	4	2	Mic-in, Line-out	1	1	64GB SSD built-in	1 (shared w/ mPCIe)	12-28 V _{DC}	WIN 10 IoT	-30 ~ 70 °C

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

Packing List

Part Number	Description
-	1 x Ei-A110 Unit
-	1 x User Manual (Simplified Chinese)
-	Wrench for top cover
1960015198T011	1 x DIN-rail bracket
1652004519	1 x 3-pin terminal block
96PSA-A60W24T2	24V/2.5A 60W adaptor

Optional Items

Part Number	Description
1702002600	Power cable 3-pin 183cm, USA type
1702002605	Power cable 3-pin 183cm, EU type
1702031801	Power cable 3-pin 183cm, UK type
1700000237	Power cable 3-pin 183cm, PSE type
1700023855-01	1M lockable HDMI cable
1700023856-01	3M lockable HDMI cable
1700019967	GPIO cable, F Cable 2*5P-2.0/D-SUB 9P(F) 15CM
AMK-W003	Ei-A110 wall mount kit