

# ARK-10 A3

## 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 MiniPCle (ex. WLAN or WWAN module) #1
- Optional VESA / DIN Rail / Wall Mounting kits
- Threaded DC jack design
- Supports WISE-PaaS DeviceOn and Embedded Software APIs



WISE-DeviceOn



### Specifications

ARK-10-U0A3		
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 #1
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 <sub>DC</sub>
	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

#1 Mini PCIe is hardware interface for wireless communication integration only. System level RF certification is not available.

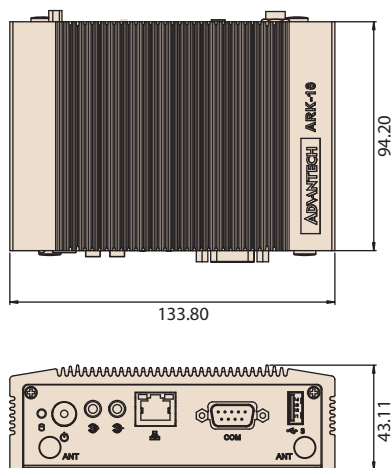
ADVANTECH

Fanless Embedded Box PCs

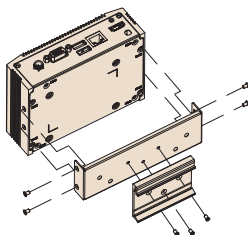
All product specifications are subject to change without notice.

Last updated: 22-Jan-2021

Dimensions

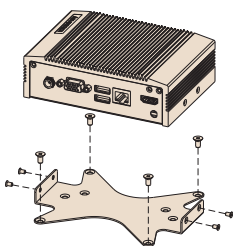


DIN Rail

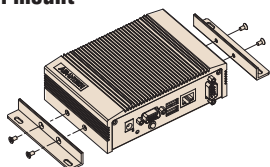


Unit: mm

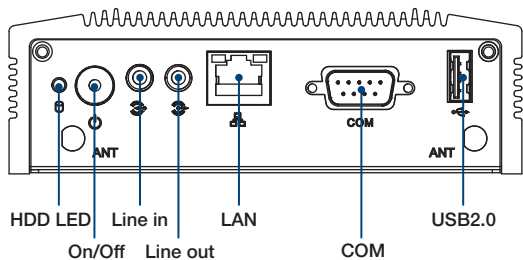
VESA mount



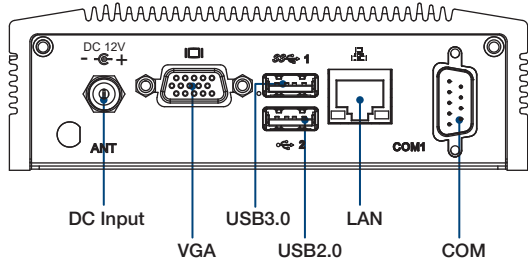
Wall mount



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-U0A3	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)
96PSA-A36W12W7-5	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	WE7E 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

