

ARK-1124U

Intel Atom™ N3350 DC SoC With Dual LAN/ 4x USB 3.0/M.2 IoT Gateway Modular Fanless Box PC

Preliminary



* Dual Layer Model is ARK-1124 with optional AMO-1101 and iDoor.



WISE-PaaS/RMM



Features

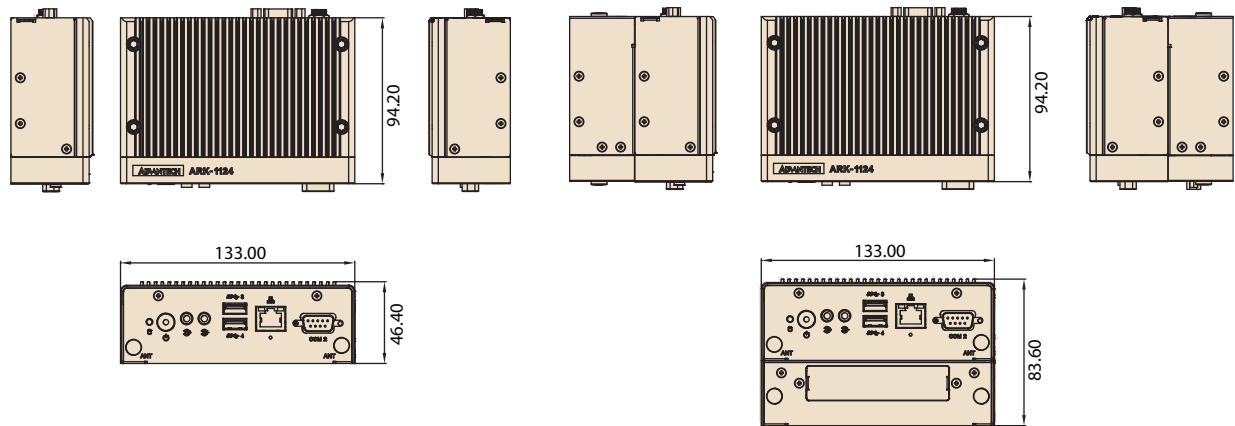
- Intel Atom N3350 Dual Core SoC support
- VGA Display/2x RS-232/422/485/4x USB 3.0
- 1x Full-size miniPCIe with SIM holder
- 1x M.2 E-key for WIFI module
- -20 ~ 60 °C extended operating temperature
- Optional TPM on board for security
- 12V lockable DC jack power input
- Advantech iDoor module compatible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

Specifications

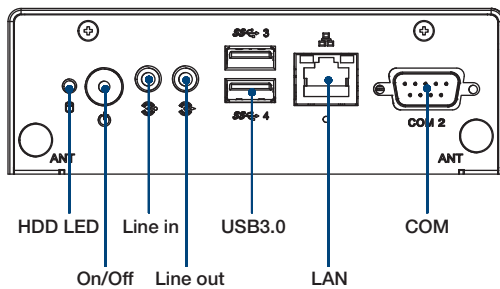
		ARK-1124U-S1A1E
Processor System	CPU	Intel® Celeron® N3350 Dual Core SoC
	Frequency	1.1GHz, turbo burst 2.4 GHz
	L2 Cache	2 MB
	BIOS	AMI EFI
Memory	Technology	DDR3L 1866 MHz
	Max. Capacity	8 GB
	Socket	1 x 204-pin SO-DIMM
Graphics	Chipset	Intel® Celeron® integrated, Gen 9th low power
	Graphic Engine	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 (By project support, T-PN MQQ 30)
Expansion	Mini PCIe	1 x full-size mPCIe for WLAN/WWAN with SIM holder
	Others	1 x M.2 E-key for WIFI (Suggest to assembly by CTOS or T-Part due to complex installation)
Storage	HDD/SSD	Supports 1 x SATA III Drive Bay (Compatible with 9.5mm height HDD)
Software Support	Microsoft Windows	Windows 10 Enterprise, Windows 10 IoT Core
	Linux	Support by project
Power Requirement	Power Type	AT/ATX
	Power Input Voltage	12V _{DC} (Optional 12~24V power module, T-PN MQQ 30, Dual Layer)
	Minimum Power Input	12 V, 1.5 A
	Power Adapter	AC to DC, DC12 V/3 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	TBC
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 With HDD: 10G, IEC 60068-2-27, half sine, 11 ms duration
	Shock During Operation	With SSD: 30 G, IEC 60068-2-27, half sine, 11 ms duration
	EMC	CE/FCC Class B, CCC, BSMI
	Safety Certifications	UL, CB, CCC, BSMI

Dimensions

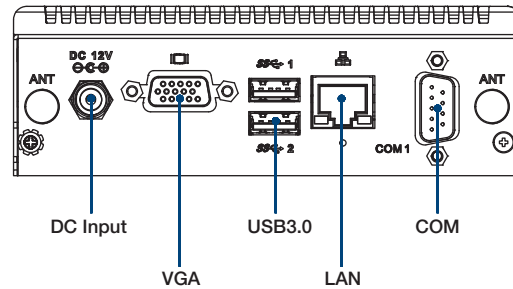
Unit: mm



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

Optional Embedded OS

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

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
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

ARK Plus Extended Modules

AM0-1101 iDoor module kit



Specifications

General	
Features	For iDoor and power module expansion
Contents	Mechanical kit for iDoor module
Dimension	133 x 37 x 94.2 mm
Operating temperature	-20~ 60°C

Ordering Information

P/N	Description
AM0-1101	2nd Layer iDoor module kit

* AM0-1101 support iDoor module x1 (by CTOS). iDoor module is optional, please select optional module when ordering

* AM0-1101 support iDoor module x1 and 12-24V power module x1 (by T-PN, MOQ =30)

ARK-1124 Dual Layer Expansion Option Items

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-1120Y-0201E	Isolated RS-232, 2-Ch, DB9, PCIe Interface
MOS-1121Y-0201E	Isolated RS-422/485, 2-Ch, DB9, PCIe Interface
MOS-1120Y-1401E	Non-Isolated RS-232, DB37, 4-Ch, PCIe Interface
MOS-1121Y-1401E	Non-Isolated RS-422/485, DB37, 4-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