

ARK-3533

Intel® 12th/13th Gen Core™ i3/i5/i7/i9 LGA1700 Expansion Fanless Box PC



Features

- Support Intel® 12th/13th Gen. Core™ i3/i5/i7/i9 processor
- Dual display: HDMI + HDMI
- DDR5 SO-DIMM memory support up to 64 GB
- 9-36V_{DC} wide range power input
- Support 2 x 2.5" hard drive bays
- Support up to 4GbE, 8USB, 8COM, 16bit DIO, 2CANBus, TPM2.0
- SUSI API, WISE-DeviceOn, Trellix and Acronis bundled
- Support Windows 11 IoT Enterprise LTSC



WISE-DeviceOn SUSI API



Specifications

	CPU	i9-13900TE	i7-13700TE	i5-13500TE	i3-13100TE	i9-12900TE	i7-12700TE	i5-12500TE	i3-12100TE	
13 th and 12 th Generation Processor	CPU	i9-13900TE	i7-13700TE	i5-13500TE	i3-13100TE	i9-12900TE	i7-12700TE	i5-12500TE	i3-12100TE	
	P-core Frequency	1.0-5.0GHz	1.1-4.8GHz	1.3-4.5GHz	2.4-4.1GHz	1.1-4.8GHz	1.4-4.6GHz	1.9-4.3GHz	2.1-4.0GHz	
	L3 Cache	36MB	30MB	24MB	12MB	30MB	25MB	18MB	12MB	
	Cores	24	16	14	4	16	12	6	4	
	TDP	35W	35W	35W	35W	35W	35W	35W	35W	
	Chipset	H610E								
	BIOS	AMI EFI 256Mbit								
Memory	Technology	DDR5 4800 MHz								
	Max. Capacity	64 GB								
	Socket	2 x 262-pin SO-DIMM								
Graphics	Chipset	Intel® UHD Graphics 770								
	Graphic Engine	DirectX 12, OpenGL 4.5 HW Encode: H.265/HEVC, H.264/MPEG-4 AVC, MPEG-2, JPEG/MJPEG and VP8. HW Decode: H.265/HEVC, H.264/MPEG-4 AVC, MPEG-2, VC-1/WMV9, JPEG/MJPEG, VP8 and VP9								
	HDMI	2 HDMI port, HDMI 2.0 for HD video playback, 4096x2160@60Hz								
	Dual Display	HDMI+HDMI (DP support by project)								
Ethernet	LAN1	10/100/1000 Mbps Intel I219-LM GbE, support Wake On Lan								
	LAN2/3/4	10/100/1000/2500 Mbps Intel i226-V GbE, support Wake On Lan								
Audio	Interface	Realtek ALC888S, High Definition Audio, Line-out/Mic-in (switch)								
Others	Watch dog Timer	255-level timer interval, setup by software								
	TPM	TPM 2.0 (by optional AMO-I029)								
I/O Interface	Serial Port	4 x RS-232/422/485 port with auto flow control, 4 x RS-232								
	USB	4 x USB 3.2 (2 x Gen2, 2 x Gen1), 4 x USB 2.0								
	DIO	16bit DIO (by optional cable)								
Expansions	CANBus	2 ports by optional cable								
	M.2	1 x M.2. 2230 E key and 1 x M.2 2280 B key with SIM holder #1								
	Add-on Card Slot	2 Slot PCI (by optional AMO-3510)								
	Maximum card size	110mm (H) x 180mm (L)								
Storage	HDD	2 x 2.5" SATAIII 9mm height HDD bays								
	NVME	1 x PCIe2 (Share with M.2 2280 B key)								
Software Support	Microsoft Windows	Windows 10/11								
	Linux	Ubuntu 22.04, others by project support								
Power Requirements	Power Type	AT/ATX								
	Power Input Voltage	9-36V								
	Power Adapter	AC to DC (Optional)								
Power Consumption (CPU/Memory Only)	Typical	21.2W								
	Max.	40.4W								

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

Specifications (Cont.)

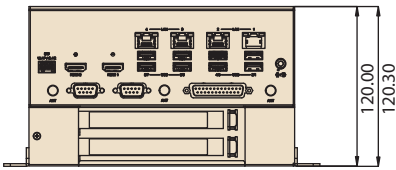
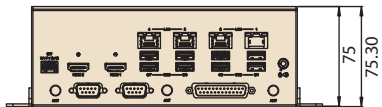
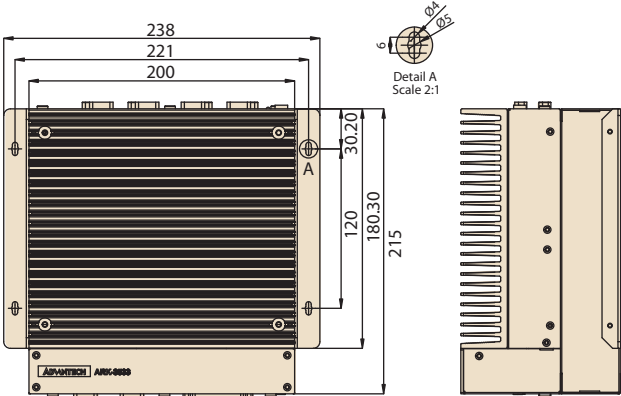
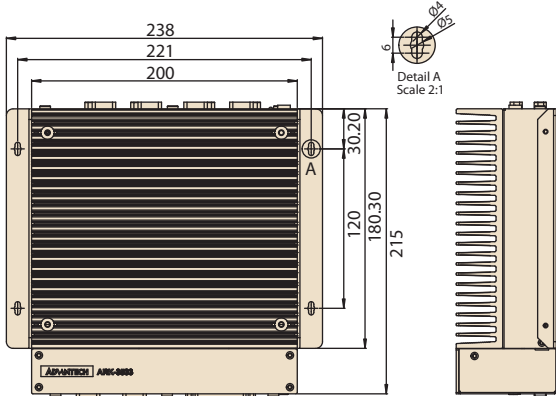
Mechanical	Construction	Aluminum housing
	Mounting	Desk mounting
	Dimensions (W x H x D)	200 x 75 x 215 mm
	Weight	3.2 Kg
Environment	Operating Temperature	Up to 35W processor with extended temp peripherals: -20 ~ 60° C with 0.7m/s air flow
	Storage Temperature	-40 ~ 85° C
	Relative Humidity	95% @ 40° C (non-condensing)
	Vibration During Operation	With SSD: 3 Grms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 hr/axis.
	Shock During Operation	With SSD: 30 G, IEC 60068-2-27, half sine, 11 ms duration
	Safety	CE/FCC Class B, CCC, BSMI, UKCA

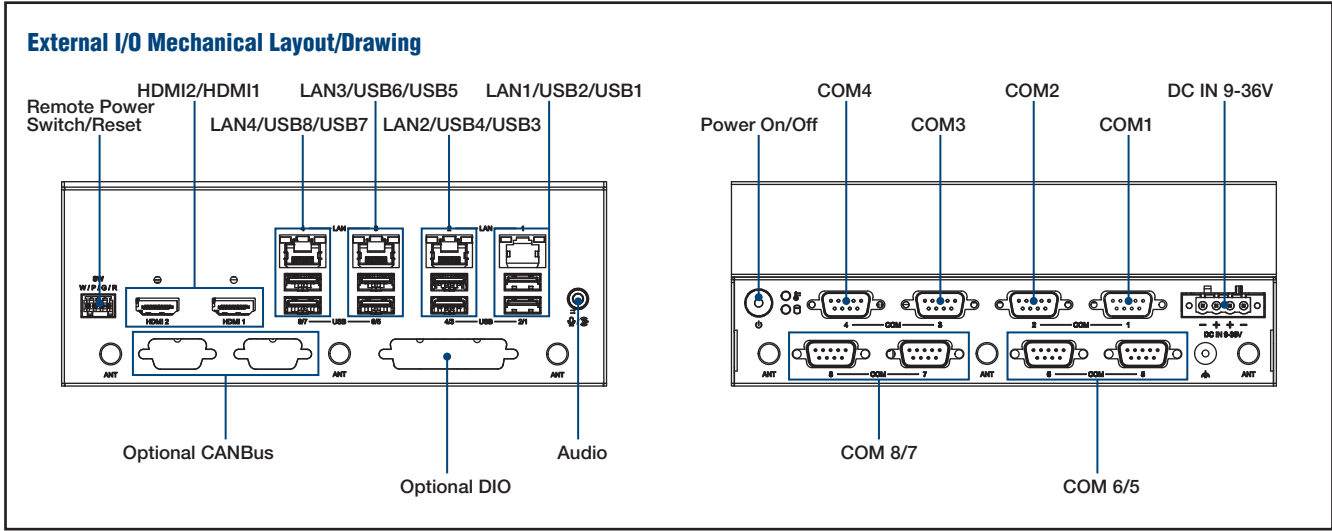
Dimensions

Unit: mm

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ARK-3533+AM0-3510





- Note:
- LAN 1 up to 10/100/1000 Mbps
LAN 2 up to 10/100/1000/2500Mbps
 - USB 3.2: USB1-4
USB 2.0: USB5-8
 - RS-232: COM3/4/7/8
RS-232/422/485: COM1/2/5/6

Ordering Information

Part No.	CPU	DDR5	Gbe	HDMI	RS-232	RS-232/422/485	USB	M.2 B key	SIM	M.2 E Key	Expansion	Made in
ARK-3533-00A1	LGA1700 Socket Type	Up to 64GB	4	2	4	4	8	1	1	1	2 PCI (option)	China
ARK-3533-00A1U	LGA1700 Socket Type	Up to 64GB	4	2	4	4	8	1	1	1	2 PCI (option)	Taiwan

Note: CPU/Memory/Storage and operating system bundled by request.

Packing List

Part Number	Description
-	ARK-3533 Unit
-	User Manual (Simplified Chinese)
-	China RoHS
-	Mounting kit
36WSWPDOBUND11	WISE-DeviceOn
36WSWPDOB0211	Trellix Application Control Lite/Acronis Backup 11.7 for Windows PC

Embedded OS

Part Number	Description
20706WLH1S0010*	WIN11 IoT LTSC 24H2 64bit for i7/i9
20706WLV1S0010*	WIN11 IoT LTSC 24H2 64bit for i3/i5
20706WX1HS0047	WIN10 IoT LTSC 21H2 64bit for i7/i9
20706WX1VS0047	WIN10 IoT LTSC 21H2 64bit for i3/i5
20706U22DS0020	img UbuntuD ARK-3533 64b 22.04 ENU

* with upgrade EC and BIOS

ARK-3533 Optional Expansion Kit for add-on Cards

Part Number	Description
AMO-3510	ARK-3533 expansion kit for 2*PCI
AMK-A0047	ARK-3533 thermal kit for 5G and Hailo AI card

ARK-3533 Default SKU Option Items

Optional Item for Default SKU

Part Number	Description
96PSA-A150W19P4-4	AC to DC adapter, DC19V 150W, 0 ~ 40 °C
96PSA-A230W24P4-3	AC to DC adapter, DC 24V 230W, -20 ~ 60 °C
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
1960109859N000	Internal USB Bracket for ARK-3533
1960103315N010	M.2 Bracket (for 3052 device on M.2 B key)
1700026760-21	Internal USB Cable 20cm (CN:USB9)
1700031864-01	16bit DIO Cable 10cm (CN: GPIO01)
1700030518-01	1 Port CANBus cable 15cm

Optional TPM Module

Part Number	Description
AMO-1029	TPM 2.0 Infineon SLB9670V2.0