

# USM-110

## 4K Ultra-Compact RISC-Based Hospitality Box Computer



DeviceOn/iService

### Features

- Equipped with DeviceOn/iService software for remote device management
- Built-in RK3566 – Cortex-A55 quad-core processor (1.8GHz)
- 2 GB onboard memory; 16GB eMMC onboard expandable MicroSD (TF) storage
- Supports one HDMI output (4K@60Hz)
- Supports various mount options including VESA, wall, pole, Magnet, and DIN-rail mounting
- Can be integrated with optional Wi-Fi, Bluetooth modules
- Supports Android 12.0 or Linux Debian11.0 RED Compliance



### Introduction

USM-110 is a 4K ultra-compact RISC-Based box PC that delivers high-performance graphics and supports H.265-encoded native 4K content@60fps. The system's ultra-compact fanless design and support for diverse mount options ensure easy installation in a wide range of application markets. Moreover, USM-110 is integrated with Advantech's WISE-PaaS, which allows users to layout, schedule, and dispatch signage contents to the USM-110 digital signage player over the Internet, enabling remote delivery of diverse high-resolution multimedia. Moreover, USM-110 is equipped with Advantech's DeviceOn/iService software, which is a next-generation unified device management solution based on the WISE-DeviceOn platform. With support for batch operations and multi-device control, DeviceOn/iService enables easy device configuration and deployment for convenient remote device management.

### Product Highlights



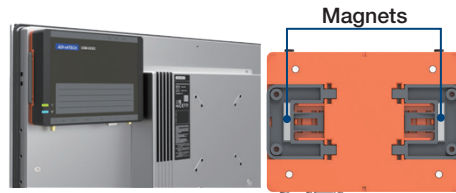
- 1 x HDMI with locks
  - Supports native 4K content @60fps



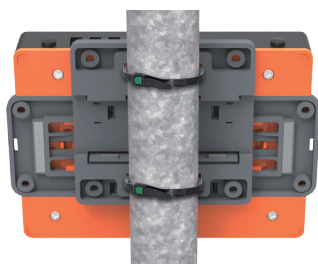
VESA Mount (75 x 75 mm)



Wall Mount (using the two side wings)



Magnet Mount (attached using magnets on the two wings)



Pole Mount (attached using cable ties)



DIN-Rail Mount

## Specifications

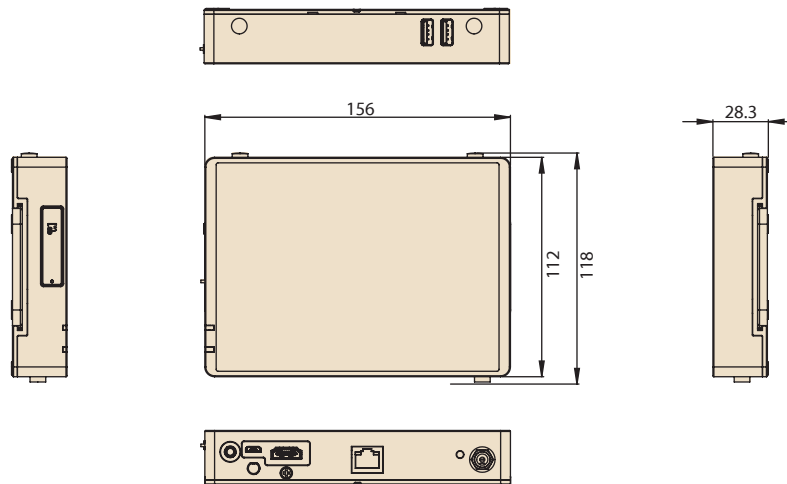
		USM-110C
System	CPU	RK3566, Arm® Cortex-A55 quad-core processor (1.8GHz)
	GPU	Mali-G52 1-Core-2EE
Graphics	Graphics Engine	OpenGL ES 1.1/2.0/3.2, Vulkan 1.0/1.1, OpenCL 2.0 Full Profile
	Capacity	2GB onboard memory
Memory	Flash	16 GB onboard memory
	Expansion	Micro SD
Multimedia	H/W Video Codec	Decoder: <ul style="list-style-type: none"> <li>▪ H.265 HEVC/MVC Main10 Profile yuv420@L5.1</li> <li>▪ H.264 AVC/MVC Main10 Profile yuv400/yuv420/yuv422</li> <li>▪ H.263 Profile0.levels 10-70.up to 720x576@60fps</li> <li>▪ VP8, VC1, MPEG-4, MPEG-2, MPEG-1</li> </ul>
		Encoder: <ul style="list-style-type: none"> <li>▪ H.264/AVC BP/MP/HP</li> <li>▪ H.265/HEVC MP</li> <li>▪ Support YUV/RGB video source with rotation and mirror</li> </ul>
		Display Resolution
I/O	HDMI	1
	LAN	1 x 10/100/1000 Mbps
	Serial Port	N/A
	USB 2.0	2
	OTG USB	1
	Audio	1
	Reset	1
	LED Indicators	1 x Power, 1 x Wireless Network
	DC In	1
Expansion	Micro SD Card Slot	1
	Mini PCIe	N/A
	4-pin wafer2.0	1* (for WiFi module option)
Mechanical	Dimension (L x W x H)	156 x 112 x 28 mm (6.14 x 4.41 x 1.10 in)
	Weight	0.43 kg (0.94 lb)
Power	Input Rating	12V/3A (36W Power Adapter)
	Power Consumption	Typical 15W; Max. 25W
Installation	Mount Options	VESA (75 x 75), wall, desktop, pole, magnet, DIN rail
Software	Operating System	Android 12.0/Debian 11.0
	Software	WISE-PaaS
	Display Orientation	Portrait and landscape modes supported
	Client Status Reports	Generates Heartbeat, System reports
Environment	Supported Medis Formats	Image: JPG, PNG, BMP, GIF; Video: H.264, MPEG-4, MPEG-2 Text: text, scrolling text Audio: MP3, AAC, PCM
	Operating Temperature	0 ~ 40° C (32 ~ 104° F)
	Storage Temperature	-40 ~ 85° C (-40 ~ 185° F)
Certification	Relative Humidity	90% @ 40° C (non-condensing)
		CE/FCC/UL/CB/BSMI/RED
DeviceOn/iService Remote Device Management	Operating System	Android 12.0
	Common Controls (Reboot, Shutdown)	✓
	Remote desktop	✓ (via VNC)
	Device-Specific Controls (Audio, Backlight)	✓
	Connection Status	✓
	Hardware Status	✓
	Batch Operation Support	✓
	OTA Storage Management Local blob	Local blob
	OTA Software Updates	✓
	Software Watchlist	✓
	Software Start/Stop	✓
	Kiosk Mode	✓
	Peripherals Watchlist	✓

Note:

1. DeviceOn/iService software must be download from the Advantech website at <https://www.advantech.com/search/?q=DeviceOn%2FiService&st=support&sst=Utility>

## Dimensions

Unit: mm



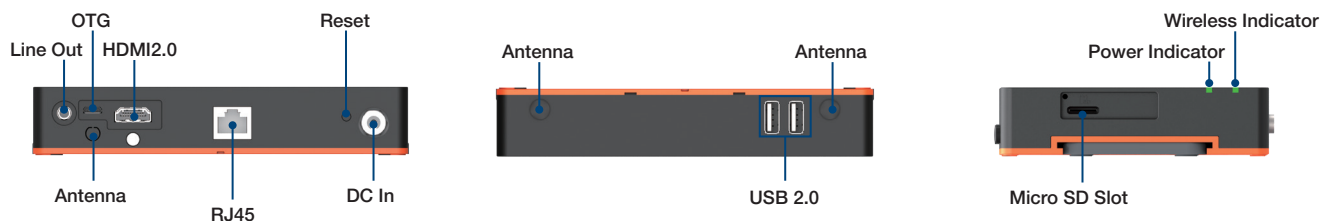
## Ordering Information

PN	Description	RAM	Storage	OS	RTC auto power on/off
USM-110C-BD113	RK3566, 2G/16G, 1HDMI, 2USB, Android12	2GB	16GB	Android 12.0	Support

## Optional Accessories

Product	Part Number	Usage	Description
WiFi/BT Module	IRS-WIFI-A3E	1	USM-110, USB WIFI5_BT5.0, 1T1R, Antenna 968DD00223 *1 + 1700033184-01 *1 + 1750006010 *1 + 1750006043 *1 + 1750008671-01 *2 + 2130020501N000 *1
HDMI Cable	1700023855-11	1 or 2	M Cable HDMI 19P(M)/HDMI 19P(M) 100cm w/Lock
Power Cord	96CB-POWER-B-1.8MB	1	RW0.75 Black/3L 1.8M(CCC)
	1700001524	1	3P UL 10A 125V 180cm(American)
	170203183C	1	3P 3P EU (WS-010+083) 183CM(European)
	1700018553	1	Power Cord SAA 3P 2.5A 250V 183cm(Australia)
	1700025113-11	1	Power Cord ISI 3P 2.5A 250V 180cm(India)
	1700018409	1	Power Cord KCC 2P 2.5A 250V 183cm(Korea,Russia)
	1700024849-01	1	Power Cord BSMI 3P 2.5A 125V 180cm(Taiwan)
	170203180A	1	Power Cord BSI 3P 2.5A 250V 183cm(UK)
	1700008921	1	3P 1.8M PSE 7A 125V(Japan)

## I/O Interface



# DeviceOn/iService

## Unified Remote Device Management Software



### Features

- Supports Advantech devices equipped with Windows, Android, and Linux OS
- Flexible device, location, user, and permissions management
- Enables remote monitoring and control of hardware, software, and peripherals
- Supports over-the-air (OTA) firmware and software updates
- Ensures quick, easy, and secure device onboarding
- RESTful APIs for third-party system integration

### Introduction

Advantech's DeviceOn/iService is a next-generation unified device management solution based on the WISE-DeviceOn platform. Designed to enable centralized monitoring and remote management, DeviceOn/iService supports Advantech devices equipped with Windows, Linux, or Android operating systems. The software also supports the management of applications and integrated peripherals, such as a barcode scanner, card reader, camera, and printer. Users can remotely access and control connected devices, take screenshots, rollout OTA upgrades, and use remote desktop capabilities for troubleshooting from any location at any time. Moreover, DeviceOn/iService supports batch operations to facilitate the management of multiple devices simultaneously for easy and convenient device configuration and deployment.

### Total Management



#### Devices & Hardware

- Windows, Linux, Android
- Hardware, storage, battery



#### Software & Peripherals

- Software monitoring & access
- Screens, USB devices, printers



#### Open for Expansion

- Peripheral integration
- Open APIs for integration

### Remote Access



#### Real-Time Monitoring

- Connection/hardware status
- Software/peripheral status
- Failure notifications



#### Remote Controls

- Power controls
- Audio, backlight controls
- Software controls



#### Troubleshooting

- Screenshots
- Remote desktop support

### Operational Efficiency



#### OTA updates

- System/software updates
- File repository management
- App store



#### Batch Controls

- 1-to-many batch reboot, etc.
- Time-saving tasks



#### Setup Booster

- Software/peripheral watchlist
- Roles, rule templates

Note: Some functions may vary according to the product

### System Architecture

