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 an 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.
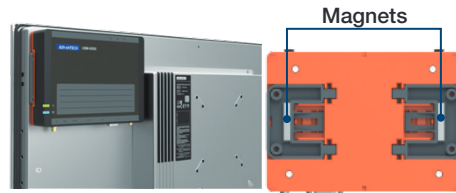
Product Highlights

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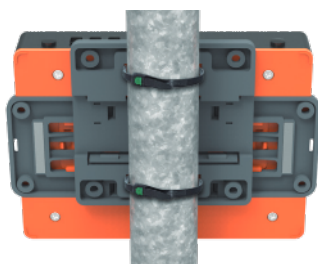- Supports native 4K content @60fps

VESA Mount (75 x 75 mm)

Wall Mount (using the two side wings)

Magnet Mount (attached using magnets on the two wings)
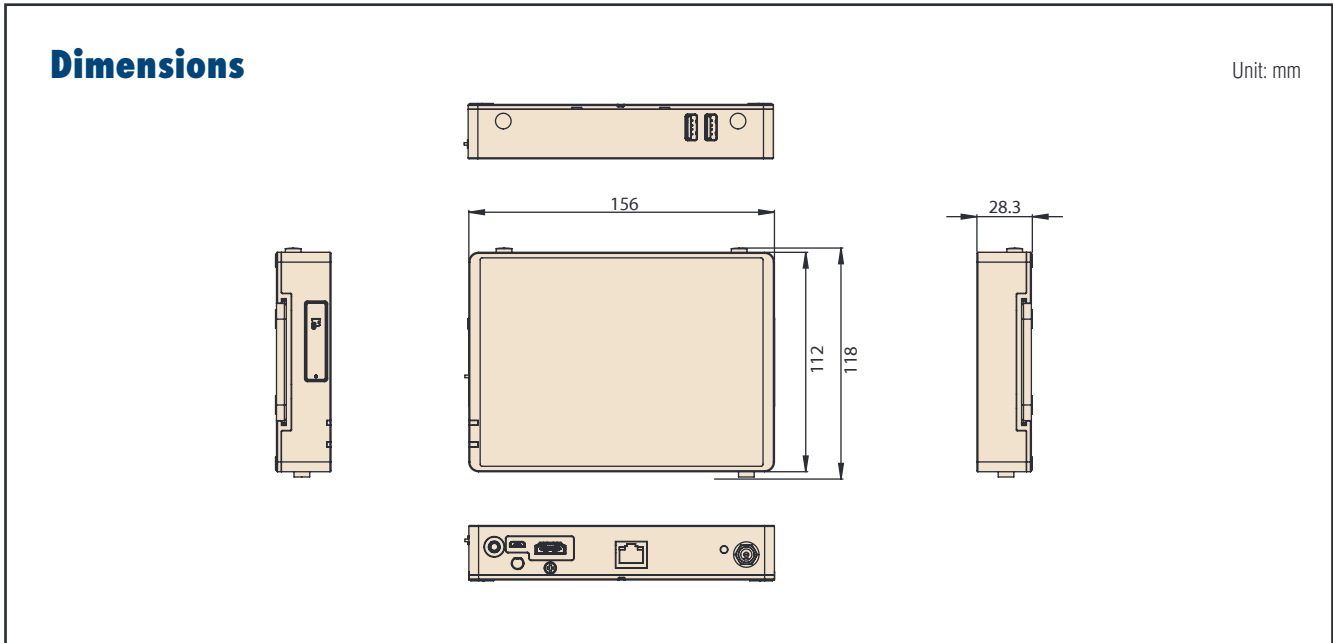

Pole Mount (attached using cable ties)

DIN-Rail Mount

ADVANTECH **USM Series**

Specifications

		USM-110C
System	CPU	RK3566, Arm® Cortex-A55 quad-core processor (1.8GHz)
Graphics	GPU	Mali-G52 1-Core-2EE
	Graphics Engine	OpenGL ES 1.1/2.0/3.2, Vulkan 1.0/1.1, OpenCL 2.0 Full Profile
Memory	Capacity	2GB onboard memory
Storage	Flash	16 GB onboard memory
	Expansion	Micro SD
Multimedia	H/W Video Codec	Decoder: ▪ H.265 HEVC/MVC Main10 Profile yuv420@L5.1 ▪ H.264 AVC/MVC Main10 Profile yuv400/yuv420/yuv422 ▪ H.263 Profile0,levels 10-70,up to 720x576@60fps ▪ VP8, VC1, MPEG-4, MPEG-2, MPEG-1 Encoder: ▪ H.264/AVC BP/MP/HP ▪ H.265/HEVC MP ▪ Support YUV/RGB video source with rotation and mirror
	Display Resolution	Native 4K resolution up to 3840 x 2160 @ 60 Hz
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
	Supported Medis Formats	Image: JPG, PNG, BMP, GIF; Video: H.264, MPEG-4, MPEG-2 Text: text, scrolling text Audio: MP3, AAC, PCM
Environment	Operating Temperature	0 ~ 40° C (32 ~ 104° F)
	Storage Temperature	-40 ~ 85° C (-40 ~ 185° F)
	Relative Humidity	90% @ 40° C (non-condensing)
Certification		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 softeware must be download from the Advantech website at https://www.advantech.com/search/?q=DeviceOn%2FiService&st=support&sst=Utility

Dimensions

Unit: mm

156

112

118

28.3

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

OTG

Reset

Line Out · HDMI2.0

Antenna · RJ45 · DC In

Antenna · Antenna

USB 2.0

Wireless Indicator

Power Indicator

Micro SD Slot

DeviceOn/iService

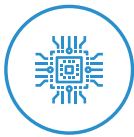## Unified Remote Device Management Software

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

Client Devices			DeviceOn Server		Browser	
	LAN →			Internet →		
Hardware	Software	Peripherals	Cloud	On-site installation	Monitor status	Controls
Free Installation			**Download Installer**		**Free Installation**	
Via the Advantech website			Via the Advantech website		Via browser	

Required Hardware

Windows10 · 8GB RAM · Intel® Core™ i5 storage · 125GB

Online Download www.advantech.com/products