USM-110W

Multiple-use Clinical Gateway

DeviceOn/iService

Features

◎ Built-in Arm® Cortex®-A17 quad-core processor (1.6 GHz)
◎ 2 GB onboard memory
◎ 16GB eMMC onboard expandable MicroSD (TF) storage
◎ Dual HDMI outputs (1 x supports 4K resolution and 1 x supports 1080P resolution)
◎ Ultra-compact design for easy installation in confined spaces
◎ Supports various mount options including VESA, wall, pole, Magnet, and DIN-rail mounting
◎ Can be integrated with optional Wi-Fi, Bluetooth, and 4G LTE modules
◎ Equipped with WISE-Paas/SignageCMS software, which supports multi-screen displays
◎ Supports Android 6.0
◎ Equipped with DeviceOn/iService software for remote device management

Introduction

USM-110W is an ITE-certified edge solution-ready platform (SRP) aimed at diverse clinical applications. Powered by an ARM® Cortex™-A17 quad-core processor with over 5 years longevity support and featuring a dual HDMI interface (supports up to 4K resolution) for video recording and analysis and gateway to collect datas. USM-110W provides a cost-effective, scalable solution for edge-to-hospital information system (HIS) and Internet of things (IoT) applications.

Moreover, USM-110W 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

2 x HDMI with locks
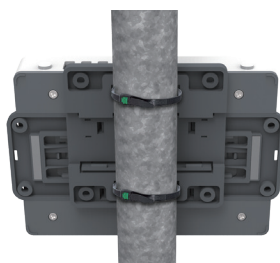◎ Supports native 4K content @60fps
◎ Dual 1080P resolution outputs

VESA Mount (75 x 75 mm)

Wall Mount (using the two side wings)

Magnets

Magnet Mount (attached using magnets on the two wings)

Pole Mount (attached using cable ties)

DIN-Rail Mount

Specifications

		USM-110W	USM-110W Delight
System	CPU	Arm® Cortex®-A17 quad-core processor (1.6 GHz)	
Graphics	GPU	Mali-T764	
	Graphics Engine	OpenGL ES 1.1/2.0/3.0, OpenCL 1.1, DirectX 11	
Memory	Capacity	2 GB onboard DDR3L (1333 MHz)	
Storage	Flash	16 GB of onboard eMMC	8 GB of onboard eMMC
	Extension	Micro SD	
Multimedia	H/W Video Codec	Decoder: 4K 10-bits 60fps H.265, H.264, MPEG-1, MPEG-2, MPEG-4,VC-1, VP8, AVS, MVC Encoder:1080P for H.264 (BP@level4.0, MP, HP@level4.0), MVC and VP8	
	Display Resolution	HDMI1: Native 4K resolution up to 3840 x 2160 (default 1080p) HDMI2: 1920 x 1080 (Display only)	
I/O	HDMI	2	1
	LAN	1 x 10/100/1000 Mbps	1 x 10/100/1000 Mbps
	Serial Port	1 (RS232/485/422 by jumper)	N/A
	USB 2.0	4	1
	OTG USB	1	1
	Audio	1	1
	Reset	1	1
	LED Indicators	1 x Power, 1 x Wireless	1 x Power, 1 x Wireless
	DC In	1	1
Expansion	Micro SD Card Slot	1	1
	M.2	1 (for Wi-Fi module option)	1 (for wifi module option)
	Mini PCIe	1 (for 4G module option)	N/A
Mechanical	Dimensions (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	12V/3A	
Installation	Mount Options	VESA (75 x 75), wall, desktop, pole, magnet,DIN rail	
Software	Operating System	Android 6.0	
	Software	WISE-Paas/SignageCMS	
	Display Orientation	Portrait and landscape modes supported	
	Client Status Reports	Generates Heartbeat, System reports	
	Supported Media 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		CCC/BSMI/CE/FCC/UL/CB	
DeviceOn/iService Remote Device Management	Operating System	Android 6, 8	
	Common Controls (Reboot, Shutdown)	✓	
	Remote desktop	✓(VNC)	
	Device-Specific Controls (Audio, Backlight)	✓*	
	Connection Status	✓	
	Hardware Status	✓*	
	Batch Operation Support	✓	
	OTA Storage Management	Local blob	
	OTA Software Updates	✓	
	Software Watchlist	✓	
	Software Start/Stop	✓	
	Kiosk Mode	✓	
*Dependant on device model	Peripherals Watchlist	✓*	

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

Dimensions

USM-110W

Unit: mm

156

28.3

112

118
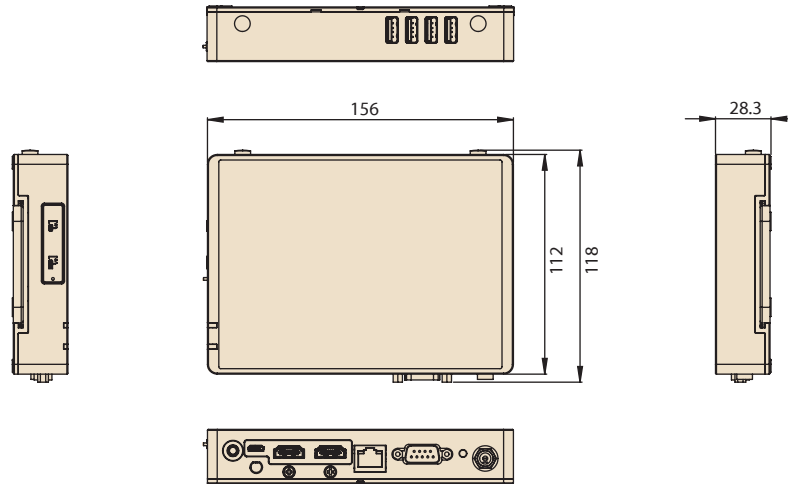
Ordering Information

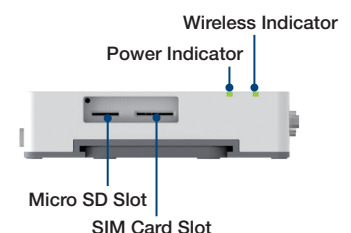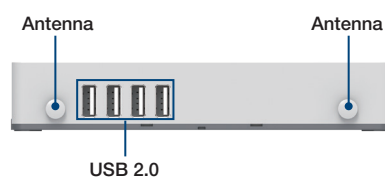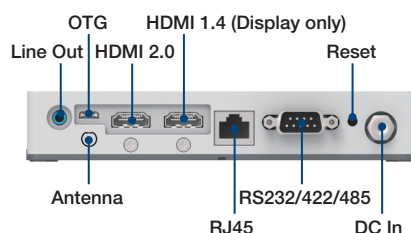| P/N	Description	RAM	Storage	OS	SW
USM-110A-WR110	ARM Cortex-A17 quad-core CPU (1.6 GHz) with 1 x HDMI, 2 x USB 2.0, and 1 x OTG USB	2GB	8GB	Android 6.0	WISE-PaaS/SignageCMS (Client)
USM-110A-WR120	ARM Cortex-A17 quad-core CPU (1.6 GHz) with 2 x HDMI, 4 x USB 2.0, 1 x COM, and 1 x OTG USB	2GB	16GB	Android 6.0	WISE-PaaS/SignageCMS (Client)

Optional Accessories

Product	Part Number	Usage	Description
4G Module	968AD00081	1	Qucetel EC20CEFA Mini-PCIe 4G module
	1750006264	1	Antenna cable SMA(F)/MHF 15 cm
	1750007990-01	1	Antenna 4G/LTE full band L=11 cm 50 Ohm
Wifi/BT4.0 Module	EWM-W167M201E	1	IEEE-802.11b/g/n (1x1)+BT4.0 RTL8723BS SDIO modu
	1750008800-01	1	Antenna Cable R/P SMA (M) to MHF4, 100mm
	1750008671-01	1	Dipole Ant.SMA/M-R 2.4/5G 2.5/4dBi BLK 109 mm

Product	Part Number	Usage	Description
HDMI Cable	1700023855-01	1 or 2	M cable HDMI 19P(M)/HDMI 19P(M) 1M with dual locks
Power Cord	96CB-POWER-B-1.8M	1	RVV 300/500V 3G 0.75 CT-12 (China)
	17NSECON230332	1	H05VV-F 3G 0.75 CT-12 1.83M(Europe)
	17NSECON230338	1	VCTF 3G 0.75 CT-12 PSE JPN 1.83M(Japan)
	17NSECON230331	1	SVT 18/3 105 °C CT-12 1.83M(USA)
	170203180A-01	1	H05VV-F (RVV 300/500V) 3G 0.75 CT-12 1.83M(UK)
	1700021375-01	1	Power Cord BSMI 3P 2.5A 125V 250cm (IEC60320-C5) (TW)

I/O Interface

USM-110W

Line Out
OTG
HDMI 2.0
HDMI 1.4 (Display only)
Reset
Antenna
RS232/422/485
RJ45
DC In

Antenna
Antenna
USB 2.0

Wireless Indicator
Power Indicator
Micro SD Slot
SIM Card Slot

DeviceOn/iService

Unified Remote Device Management Software

Features

③ Supports Advantech devices equipped with Windows, Android, and Linux OS

③ Flexible device, location, user, and permissions management

③ Enables remote monitoring and control of hardware, software, and peripherals

③ Supports over-the-air (OTA) firmware and software updates

③ Ensures quick, easy, and secure device onboarding

③ 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
③ Windows, Linux, Android
③ Hardware, storage, battery

Software & Peripherals
③ Software monitoring & access
③ Screens, USB devices, printers

Open for Expansion
③ Peripheral integration
③ Open APIs for integration

Remote Access

Real-Time Monitoring
③ Connection/hardware status
③ Software/peripheral status
③ Failure notifications

Remote Controls
③ Power controls
③ Audio, backlight controls
③ Software controls

Troubleshooting
③ Screenshots
③ Remote desktop support

Operational Efficiency

OTA updates
③ System/software updates
③ File repository management
③ App store

Batch Controls
③ 1-to-many batch reboot, etc.
③ Time-saving tasks

Setup Booster
③ Software/peripheral watchlist
③ Roles, rule templates

Note: Some functions may vary according to the product

System Architecture

Client Devices
Hardware | Software | Peripherals
Free Installation
Via the Advantech website

DeviceOn Server
Cloud | On-site installation
Download Installer
Via the Advantech website
Required Hardware
Windows10 | 8GB RAM | Intel® Core™ i5 storage | 125GB

Browser
Monitor status | Controls
Free Installation
Via browser