

USM-500R

Professional Mini Tower/Standalone Edge Computer with Intel 8th/9th Generation Processor



DeviceOn/iService

Features

- Intel® 8th/9th gen. Core™ i7/i5/i3 processor with intel Q370
- Support up to 3 PCIe slots for integrating a graphics card, capture card, etc.
- Support up to 128GB RAM (4 x DDR4 2400/2666, non ECC)
- Reliable platform enables edge computing and AI/graphics processing
- M.2 SSDs and SATA HDDs provide convenient storage
- Support multiple OS, Windows/Linux



Specifications

	USM-500R-Q3700			
Processor	Intel 8th Gen CPU	i3-8100/8100T	i5-8500/8500T	i7-8700/8700T
	Max Speed	3.1GHz	2.1GHz	2.4GHz
	Intel 9th Gen CPU	i3-9100TE/9100T	i5-9500TE/9500T	i7-9700TE/9700T
	Max Speed	2.2GHz	2.2GHz	1.8GHz
	TDP	65W(non-refresh)		
	Chipset	Q370		
Expansion Slot	PClex1(Gen3)	1		
	PClex4(Gen3)	1		
	PClex8(Gen3)	0		
	PClex16(Gen3)	1		
	M.2 (E key)	2230 for WIFI		
Memory	Technology	Dual Channel DDR4 2400/2666MHz Non-ECC SDRAM		
	Max Capacity	128GB (32GB per DIMM)		
	Socket	4 x 288 pin U DIMM		
Physical Characteristics	Dimension	320 x 132 x 310 mm		
	Weight	10kg (without MB and HDD)		
Environment	Operating Temperature	0 ~ 40 °C (32 ~ 104 °F)		
	Humidity	10 ~ 95% @ 40 °C, non-condensing		
	Vibration	1Grms		
	Shock	10G (with 11ms duration, half sine wave)		
Rear I/O	HDMI	1, Supportmax resolution 4096 x 2160 @ 60Hz		
	DP	2, Supports max resolution 4096 x 2304 @ 60 Hz		
	Serial	1 RS232		
	Ethernet	2 RJ45 (Intel I219LM/Intel I211AT)		
	USB2.0	4		
	USB3.0	0		
	USB3.1	4		
Audio	2(Mic-in/Line-out)			
Storage	SATA 3.0	2		
	M.2	1 x M.2 M key 2280, NVMe PClex4 and SATA M.2 support		
Accessory	OS	Windows 10		
Power Supply	1U	500W		
Warranty		2 years		
Certification		CE/FCC/CCC/UL/CB		

Note: USM-500R does not support WiFi and Bluetooth function in Europe Area.

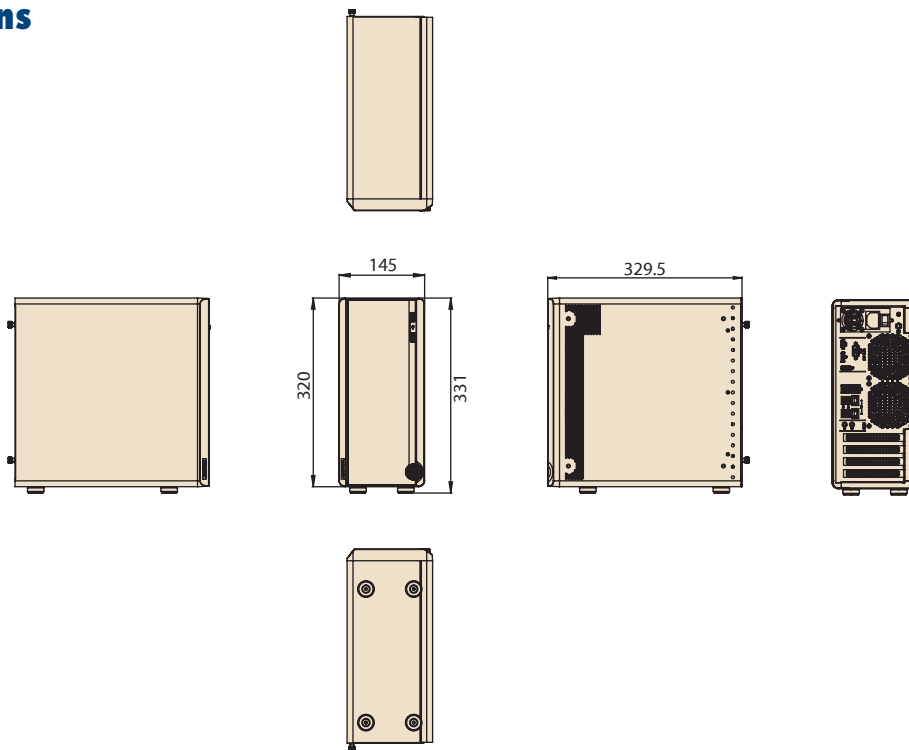
Specifications Cont.

DeviceOn/iService Remote Device Management	Operating System	Windows 10
	Common Controls (Reboot, Shutdown)	✓
	Remote desktop	✓ (via VNC)
	Audio Controls	✓
	Connection Status	✓
	Hardware Status	✓
	Hard Disk Status	✓
	Batch Operation Support	✓
	OTA Storage Management	FTP
	OTA Software Updates	✓
	Software Watchlist	✓
	Software Start/Stop	✓
	Peripherals Watchlist	✓

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

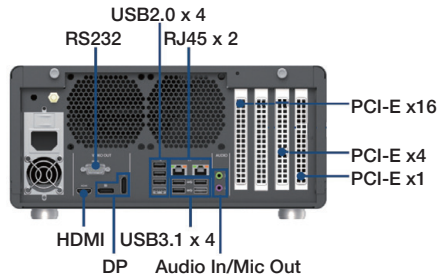
Dimensions

Unit: mm



I/O View

USM-500R-Q3700



Ordering Information

Accessory	PN	Description
System	USM-500R-Q3700	Intel chipsest Q370 Barebone with 500W PSU

Accessory

Accessory	PN	Description
CPU	96MPI3C-3.1-6M11T	CORE 3.1G 6M 1151P 4CORE i3-8100T
	96MPI3C-3.6-6M11T	CORE 3.6G 6M 1151P 4CORE i3-8100
	96MPI7C-2.4-12M11T	CORE 2.1G 9M 1151P 6CORE i5-8500T
	96MPI5C-3.0-9M11T	CORE 3G 9M 1151P 6CORE i5-8500
	96MPI5C-2.1-9M11T	CORE 2.4G 12M 1151P 6CORE i7-8700T
	96MPI7C-3.2-12M11T	CORE 3.2G 12M 1151P 6CORE i7-8700
	96MPI3CR-2.2-6M11T	CORE 2.2G 6M 1151P 4C i3-9100TE
	96MPI3CR-3.1-6M11A	CORE 3.1G 6M 1151P 4C i3-9100E(SRGQY)
	96MPI5CR-2.2-9M11T	CORE 2.2G 9M 1151P 6C i5-9500TE
	96MPI5CR-3.0-9M11T	CORE 3G 9M 1151P 6C i5-9500E
	96MPI7CR-1.8-12M11	CORE 1.8G 12M 1151P 8C i7-9700TE
96MPI7CR-2.6-12M11	CORE 2.6G 12M 1151P 8C i7-9700E	
Memory	AQD-D4U8GN24-SE	8G DDR4-2400 1GX8 1.2V SAM
	AQD-D4U16N24-SE	16G DDR4-2400 1GX8 1.2V SAM
	AQD-D4U8GN26-SE	8G DDR4-2666 1GX8 1.2V SAM
	AQD-D4U16N26-SE	16G DDR4-2666 1GX8 1.2V SAM
	AQD-D4U32GN26-SB	32G DDR4-2666 2GbX8 1.2V SAM
Storage	96FD25-S256-TS	SSSTC SEMI-WT SSD 256GB 2.5" SATA3 Tos 96 TLC
	96FD25-S512-TS	SSSTC SEMI-WT SSD 512GB 2.5" SATA3 Tos 96 TLC
	96FD25-S1TB-TS	SSSTC SEMI-WT SSD 1TB 2.5" SATA3 Tos 96 TLC
	96FD80-ST256-M13	Micron 1300 M.2 2280 256G SATAIII 3D TLC
	96FD80-ST512-M13	Micron 1300 M.2 2280 512G SATAIII 3D TLC
	96FD80-ST1TB-M13	Micron 1300 M.2 2280 1TB SATAIII 3D TLC
	96ND500G-ST-SG5KG	SG 2.5" 500G 5KRPM 7MM SATAIII 128MB
	96ND1TB-ST-WD5KG	2.5 SATA 1TB
96ND2TB-ST-SG5KG1	2.5" 2TB SATAIII 128 MB	
Wifi Module	EWM-W159M201E	802.11 a/b/g/n/ac, RTL 8822CE-CG, 2T2R, with BT5.0 (A-E key)
	1750008717	WiFi 2.4 GHz and 5 GHz dipole Antenna
	1750008683-01	Cable Ant. SMA/F-R-BH MHF4/113 BLK 425mm
Capture Card	DVP-7011HE	[PCIe x1] 1-ch Full HD H.264/MPEG4 PCIe Video Capture Card with SDK
	DVP-7011UHE	[PCIe x4] 1-ch Full HD H.264/MPEG4 PCIe Video Capture Card with SDK
Graphic Card	SKY-QUAD-RTX4000-B	[PCIe 16] RTX-4000 8G DDR6(160W) 3x DisplayPort 1.4
LAN Card	96NIC-1G2P-PE-IN3	[PCIe x4] INTEL NIC 10/100/1000M PCIe4 2pt. RJ45
System Fan	1750009113-01	Fan Axial 80x80x25.4 12V4B-280L-9000RPM 92.69CFM
	1750009336-01	Fan Axial 80x80x25 12V4B-250L-4700RPM 57C
CPU Fan	1960047831N001	C.L R3 I-LGA1156 S-95W 83*83*56.5mm-SS 12V0.26A
	1700024849-01	Power Cord BSMI 3P 2.5A 125V 180CM
Power Cord	1700001524	Power Cord UL 3P 10A 125V 183cm
	1700019146	Power Cord CCC 3P 2.5A 250V 183cm
	170203183C	Power Cord EU 3P 2.5A 250V 183cm
	170203180A	Power Cord BSI 3P 2.5A 250V 183cm(UK)
	1700018553	Power Cord SAA 3P 2.5A 250V 183cm(Australia)
	20708WX9HS0012	WIN10 LTSC-HLE, 7MUI x64
Operation System	20708WX9VS0028	WIN10 LTSC-VLE, 7MUI x64

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

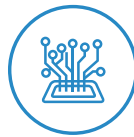
- Peripheral integration
- Open APIs for integration

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

