

USM-500

Professional Tower/Standalone Medical Computer Intel 12th/13th/14th Generation Processor



Features

- Stylish and user-friendly outlook for hospital environment
- Support Intel® 12/13th/14th Gen Core™ i5/i7/i9 processor with intel R680E
- Rich expansion for multi-purpose application
- Support Window 10/11/LTSC/Linux/NVIDIA AI (Clara SDK)
- M.2 2280 expansion slot
- HDMI and DP for multiple display used
- Support WISE-Device on
- Support Software RAID 0,1,5,10, TPM2.0



Introduction

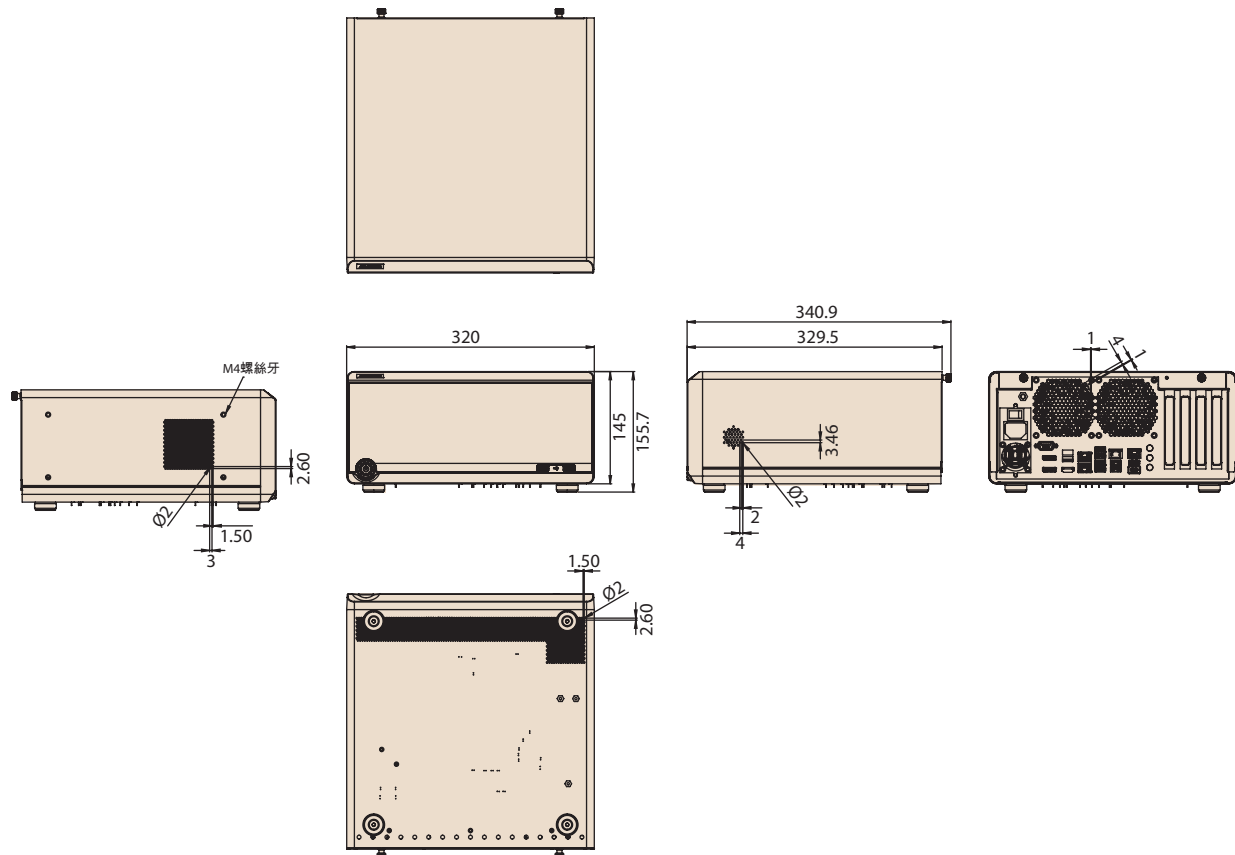
The industries first NVIDIA-Certified medical-grade computer aimed at providing AI at the edge for hospital applications and healthcare environments. This innovative Edge AI platform features support for the NVIDIA graphics card and NVIDIA's AI tools and frameworks like RAPIDS, Tensor RT and Triton Inference Server. The USM-500 efficiently utilizes two video capture cards and one NVIDIA graphics card to capture large video data while executing real-time AI algorithms and analysis.

Specifications

Processor	CPU	Intel 12 th /13 th /14 th Gen Processor (i5/i7/i9 TDP 65W)
	Chipset	Intel R680E
	Memory	4 slots U-DIMM sockets support up to 128GB DDR5 4800MHz
	Operating System	Windows 10 LTSC/ 11 Linux and windows 2021 server (By project base)
Expansion Slot	PCIe X4 (Gen3)	4GB/s per direction
	PCIe X8 (Gen3)	8GB/s per direction
	PCIe X16 (Gen5)	16GB/s per direction
	M.2 (M key)	1 (Type :2280 NVMe PCIe4)
	M.2 (E key)	1 (Type 2230 for WIFI)
	Serial	5 (5 x RS-232) 1 (1 x RS-232/422/485 with auto flow control)
Physical Characteristics	Dimension	340.9 x 320 x 155.7 mm
	Weight	9.9kg
Environment	Sine vibration	(No operation), 5 500Hz, 2G, 1 Oct/min, 3 axes, 1 hr / per axis
	Random vibration	(Operation), 5 500Hz, 1Grms, 3 axes, 1 hr / per axis (testing with barebone 2.5" SSD)
	Temperature	0-35°C(OP), -40-70°C(non-OP)
	Humidity	40°C/95%, non-condensing (OP), 60°C/95%, non-condensing(non-OP)
Graphics	HDMI	HDMI 2.0a 4096 x 2160 @ 60 Hz
	eDP	1, Internal pin header, support max. resolution 3840 x 2160 @ 60 Hz (Internal pin header)
	Display Port	Support max resolution 4096 x 2304 @ 60 Hz
Storage	HDD (2.5")/SSD	2.5" SATAIII 5KRPM 128M up to 2TB (Support 2 slot 2.5 HDD/SDD by BOM option)
I/O	HDMI	1
	Display Port	2
	RS232	1
	USB	12 (7 x USB 3.2 Type A (2 front, 5 rear)/1 x USB 3.2 Type C/4 x USB 2.0 Type A)
	RJ45	4 (LAN1: 1GbE Intel I219-LM, LAN2: 2.5GbE Intel I226LM, LAN3: 2.5GbE Intel I226LM, LAN4: 2.5GbE Intel I226LM)
	Audio	3 (Line-in/Line-out/Mic-in)
	Speaker	3W
Power Supply	Input Voltage: 100-240V, 11.5-5.5A, 60-50Hz or 200-240V, 5.5A, 60-50Hz	
Warranty	2 years	
Certification	CE, FCC, CCC, IEC/EN 60601-1 3.2th, IEC/EN 60601-1-2 4.1th, RED	

Dimensions

Unit: mm



Order Information

Standard Model

Part Number	Description	PSU	CPU	Memory	HDD	SSD
USM-500-7400AA1	i7-12700E/16G/512GSSD	900W	i7-12700E	16G	x	512G

CTOS Service

Part Number	Description	PSU	CPU	Memory	HDD	SSD
USM-500-W4000AA1	USM-500 with 900W PSU Barebone	900W	x	x	x	x

500 barebone includes 2 SATA cable/ power cable(for HDD and SSD) , screw for HDD and M.2 device. Preliminary part number will be changed according to the latest status.

Component Offerings

12th CPU

Part Number	Description
96MPI5A-2.9-18M1	Core i5-12500E
96MPI7A-2.1-25M1	Core i7-12700E
96MPI9A-2.3-30M1	Core i9-12900E

13th CPU

Part Number	Description
96MPI-13500E-14E	Core i5-13500E
96MPI-13700E-16E	Core i7-13700E
96MPI-13900E-24E	Core i9-13900E

14th CPU

Part Number	Description
96MPI-14500-14E	Core i5-14500
96MPI-14700-20E	Core i7-14700
96MPI-14900-24E	Core i9-14900

2.5" SSD

Part Number	Description
SQF-S25V1-256GSDSC	SQF 2.5" SATA SSD 650-D 256G 3D TLC (BiCS5) (0~70°C)
SQF-S25V2-512GSDSC	SQF 2.5" SATA SSD 650-D 512G 3D TLC (BiCS5) (0~70°C)
SQF-S25V4-1TDSDC	SQF 2.5" SATA SSD 650-D 1T 3D TLC (BiCS5) (0~70°C)

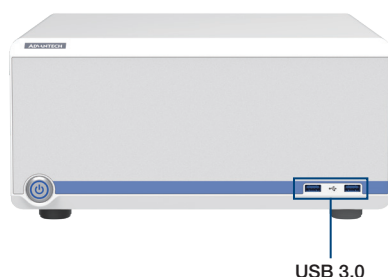
M.2 SSD

Part Number	Description
SQF-C8MV2-256GDEDM	SQF M.2 2280 720-D 256G 3D TLC BiCS5 (-20~85°C)
SQF-C8MV2-512GDEDM	SQF M.2 2280 720-D 512G 3D TLC BiCS5 (-20~85°C)
SQF-C8MV4-1TDDEDM	SQF M.2 2280 720-D 1T 3D TLC BiCS5 (-20~85°C)
SQF-C8MV4-2TDDEDM	SQF M.2 2280 720-D 2T 3D TLC BiCS5 (-20~85°C)

Cable

Part Number	Description
1700018705	Power Cord EU 3P 10A 250V 183cm
1702002600	Power Cord UL 3P 10A 125V 183cm
96CB-POWER-B-1.8MA	POWER CORD H05VV-F 3G 0.75MM 1.8M BK(G)_CN
1700023855-11	M Cable HDMI 19P(M)/HDMI 19P(M) 100cm w/ Lock
1700029605-01	200 cm DVI to DVI Cable

I/O View



Capture card

Part Number	Description
DVP-7011HE-1	1Ch 3G-SDI PCIE video capture card with SDK
DVP-7012UHEL	1-ch 4k60 12G-SDI+HDMI PCIE Video Capture Card
XOLY-BDLKDVQDHDMI4	DeckLink Quad HDMI Recorder
XOLY-BDLKHCPRO8K12	DeckLink 8K Pro capture card
VEGA-3312-S1G0	Multi-Channels Professional UHD Video Acquisition Card
VEGA-3312-S1G1	Multi-Channels Professional UHD Video Acquisition Card w/ Fanless
VEGA-3312-DOL121	VEGA-3312 w/o PL DDR
VEGA-3003-S0	Dual UHD HDMI Video Capture Card

DDR

Part Number	Description
SQR-UD5N8G5K6HNGAG	UDIMM DDR5 5600 8GB 1Gx16 Hynix
SQR-UD5N16G5K6HNAG	UDIMM DDR5 5600 16GB 2Gx8 Hynix
SQR-UD5N32G5K6HNAG	UDIMM DDR5 5600 32GB 2Gx8 Hynix
SQR-UD5N8G5K6SNGPB	UDIMM DDR5 5600 8GB 1Gx16 Samsung
SQR-UD5N16G5K6SNPB	UDIMM DDR5 5600 16GB 2Gx8 Samsung
SQR-UD5N32G5K6SNPB	UDIMM DDR5 5600 32GB 2Gx8 Samsung

Graphic Card

Part Number	Description
SKY-QUAD-6000A-48	Quadro RTX 6000 Ada PCIe 48GB DSFH w/ATX BKT BUL
SKY-QUAD-4000A-20	Quadro RTX 4000 Ada PCIe 20GB SSFH w/ATX BKT BUL
SKY-QUAD-5000A-32	Quadro RTX 5000 Ada 32GB PCI-Ex16 DP*4 FS BULK
SKY-QUAD-2000A-16	Quadro RTX 2000 Ada PCIe 16GB DSLP w/ATX BKT
SKY-QUAD-6000QB-96	RTX PRO 6000 Blackwell Max-Q PCIe 96GB DSFH
SKY-QUAD-5000B-48	RTX PRO 5000 Blackwell PCIe 48GB DSFH
SKY-QUAD-4000B-24	RTX PRO 4000 Blackwell PCIe 24GB SSFH
SKY-QUAD-2000B-16	RTX PRO 2000 Blackwell PCIe 16GB DSLP

WiFi Kit

Part Number	Description
EWM-W165M201E	Wi-Fi 6 + BT Module 2.4/5/6GHz M.2 2230 No.Vpro
EWM-W165M202E	Wi-Fi 6+BT 5.3 Module 2.4/5/6GHz M.2 2230 Vpro
1751000397-01	PCB Ant. 2.4+5+6G WIFI MHF4L/113 BLK L142mm
1751000398-01	PCB Ant. 2.4+5+6G WIFI MHF4L/113 GRY L242mm

