

USM-500

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



Features

- Stylish and user-friendly outlook for hospital environment
- Support Intel® 12th/13th Gen Core™ i7/i5/i3 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

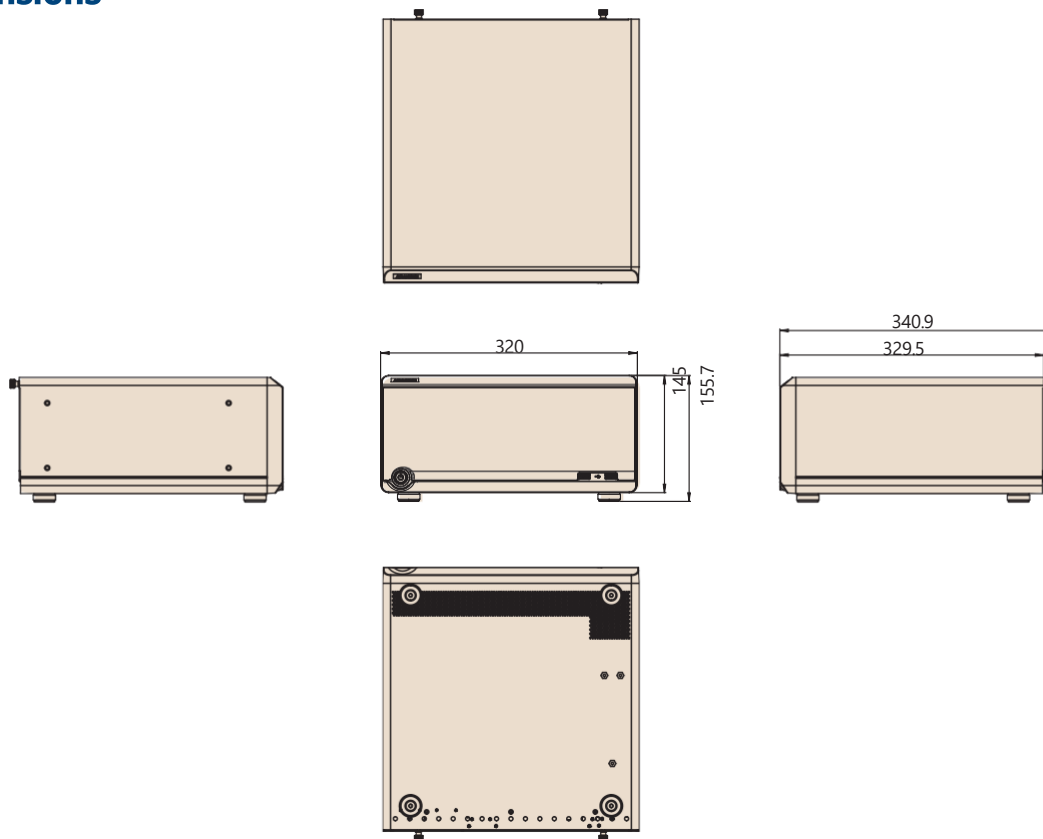
The industries first NVIDIA-Certified medical-grade computer aimed at providing AI at the edge for hospital applications and healthcare environments. This innovative Edge AI platform features support for the NVIDIA RTX -A6000 graphics card and NVIDIA's AI tools and frameworks like RAPIDS, Tensor RT and 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 Gen Processor (i3/i5/i7 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 (Gen4)	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 support)
	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	320 x 329.5 x 145 mm
Environment	Weight	10kg
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)
	CD Drive (Optional)	SLIM 8X SATA DVD+/-RW DL BLACK (By project base)
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: internal PSU 100-240V 8-4) 47~63 Hz, maximum output power 900W Output Voltage: +3.3, 20A; +5V 20A; +12V1, 16A; +12V2, 16A; +12V3 16A; +5Vsb, 3A; -12V, 0.5A; -5V, 0.2A	
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(TBD)	i7-12700E/16G/512GSSD	900W	i7-12700E	16G	x	512G

CTOS Service

Part Number	Description	PSU	CPU	Memory	HDD	SSD
USM-500-W5000000S	USM-500 with 900W PSU Barebone	900W	x	x	x	x
USM-500-W5000000ST	USM-500 with 900W PSU Barebone (Made in Taiwan)	900W	x	x	x	x

Preliminary Part Number will be changed according to latest status.

500 barebone include 2 SATA cable/ power cable (for HDD and SSD), screw for HDD and M.2 device.

Component Offerings

CPU

Part Number	Description
96MPI5A-2.9-18M17	Core i5-12500E
96MPI7A-2.1-25M17A	Core i7-12700E
96MPI9A-2.3-30M17	Core i9-12900E

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

2.5" HDD

Part Number	Description
96ND500G-ST-SG5KG	SG 2.5" 500G 5KRPM 7MM SATAIII 128MB
96ND1TB-ST-SG5KG1	2.5 SATA 1TB
96ND2TB-ST-SG5KG1	2.5" 2TB SATAIII 128 MB

2.5" SSD

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

M.2 SSD

Part Number	Description
SQF-C8MV2-256GDEDC	SQF PCIe/NVMe M.2 2280 OPAL 720-D 256G 3D TLC BiCS5 (0~70°C)
SQF-C8MV2-512GDEDC	SQF PCIe/NVMe M.2 2280 OPAL 720-D 512G 3D TLC BiCS5 (0~70°C)
SQF-C8MV4-1TDEDC	SQF PCIe/NVMe M.2 2280 OPAL 720-D 1T 3D TLC BiCS5 (0~70°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

Capture card

Part Number	Description
DVP-7011HE-1	1Ch 3G-SDI PCIE video capture card with SDK
XOLY-BDLKDVQDHDMI4	DeckLink Quad HDMI Recorder
XOLY-BDLKHCPRO8K12	DeckLink 8K Pro capture card

DDR

Part Number	Description
SQR-UD5N8G4K8SNGBB	288pin UDIMM DDR5 4800 8GB 1.1v 1Gx16(0-85)
SQR-UD5N16G4K8SNBB	288pin UDIMM DDR5 4800 16GB 1.1v 2Gx8(0-95)
SQR-UD5N32G4K8SNBB	288pin UDIMM DDR5 4800 32GB 1.1v 2Gx8(0-95)

Graphic Card

Part Number	Description
SKY-QUAD-RTXA6000B	Quadro RTX-A6000(need extra cable)
SKY-QUAD-RTXA4000B	Quadro RTX-A4000
SKY-QUAD-RTXA5000B	Quadro RTX-A5000(need extra cable)
SKY-QUAD-A2000-12B	Quadro RTX A2000 12GB FS w/ATX bracket BULK

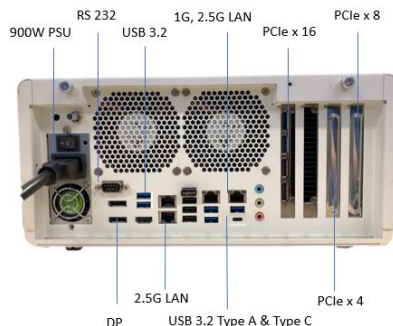
WiFi Kit

Part Number	Description
EWM-W165M202E	Wi Fi AX2106E 2230 M.2 Key E

I/O View



USB 3.0



DP USB 3.2 Type A & Type C