

USM-300 Preliminary

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



Features

- Stylish and user-friendly outlook for hospital environment
- Support Intel® 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
- Scalable for single and dual layer design
- Support WISE-Device on
- Support Software RAID 0,1 TPM2.0



Introduction

The industry's 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, TensorRT and Triton Inference Server. The USM-300 efficiently utilizes 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 13th Gen Processor (i3/i5/i7 TDP 65W)
	Chipset	Intel R680E
	Memory	2 slots SO-DIMM sockets support up to 64GB DDR5 4800MHz
	Operating System	Windows 10 / TSC/ 11 Linux and windows 2021 server (By project base)
Expansion Slot	PCIe X4 (Gen4)	4GB/s per direction (support 75W power budget per PCIe slot) (second layer configuration no such expansion in first layer)
	PCIe X16 (Gen5)	6GB/s per direction (support 75W power budget per PCIe slot) (second layer configuration no such expansion in first layer)
	M.2 (M key)	1 (Type :2280 NVMe PCIe4 M.2 support)
	M.2 (E key)	1 (Type 2230 for WIFI)
	Serial	1 (1 x RS-232) (Option, via cable)
Physical Characteristics	Dimension	270 x 305 x 100/50 mm (dual/single)
Environment	Weight	7kg (TBD)
	Temperature	0-40 °C(OP), -40-70 °C(non-OP)
	Humidity	40 °C/95%, non-condensing (OP), 60 °C/95%, non-condensing (non-OP)
	Vibration/Shock	1 Grrms (OP), 2Grms(non-OP)/ 10G, 11ms, half sine
Graphics	HDMI	HDMI 2.0a 4096 x 2160 @ 60 Hz
Storage	HDD (2.5")/SSD	1 x 2.5" up to 2TB
	CD Drive (Optional)	SLIM 8X SATA DVD+/-RW DL White/BLACK (By project base)
I/O	HDMI	1
	RS232	1(Optional)
	USB	7 (4 x USB 3.2 Type A (rear)/1 x USB 3.2 Type C(rear)/2 x USB 2.0 Type A (front))
	RJ45	2 (LAN1: 1GbE Intel I219-LM, LAN2: 2.5GbE Intel I226LM)
	Audio	2 (Line-in/Line-out)
	Speaker	3W
Power Supply		Input Voltage (TBD): internal PSU 100-240V 8-4) 47-63 Hz, maximum output power 360W
Warranty		2 years
Certification		CE, FCC, CCC, IEC/EN 60601-1 3.2th, IEC/EN 60601-1-2 4.1th, RED

Dimensions

Unit: mm



Ordering Information

Standard Model

Part Number	Description	PSU	CPU	Memory	SSD
USM-300D-95G4AA1	USM-300 Dual Layer w/i9, DDR 16G, M.2 512G, 360W	360W	I9-13900E	16G	512G
USM-300D-75G4AA1	USM-300 Dual Layer w/i7, DDR 16G, M.2 512G, 360W	360W	I7-13700E	16G	512G
USM-300D-55G4AA1	USM-300 Dual Layer w/i5, DDR 16G, 2 512G, 360W	360W	I5-13500E	16G	512G
USM-300S-95G4AA1	USM-300 Single Layer w/i9, DDR 16G, M.2 512G, 360W	360W	I9-13900E	16G	512G
USM-300S-75G4AA1	USM-300 Single Layer w/i7, DDR 16G, M.2 512G, 360W	360W	I7-13700E	16G	512G
USM-300S-55G4AA1	USM-300 Single Layer w/i5, DDR 16G, 2 512G, 360W	360W	I5-13500E	16G	512G

Component Offerings

CPU

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-WD5KG	2.5 SATA 1TB
96ND2TB-ST-SG5KG1	2.5" 2TB SATAIII 128 MB

CPU

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-WD5KG	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-C8MV2-256GDEDCC	SQF PCIe/NVMe M.2 2280 OPAL 720-D 256G 3D TLC BiCS5 (0-70°C)
SQF-C8MV2-512GDEDCC	SQF PCIe/NVMe M.2 2280 OPAL 720-D 512G 3D TLC BiCS5 (0-70°C)
SQF-C8MV4-1TDEDCC	SQF PCIe/NVMe M.2 2280 OPAL 720-D 1T 3D TLC BiCS5 (0-70°C)
SQF-C8MV4-2TDEDCC	SQF M.2 2280 720-D 2T 3D TLC BiCS5 (0-70°C)

Cable

Part Number	Description
1700001524	Power Cord UL 3P 10A 125V 183cm
170203183C	Power Cord EU 3P 2.5A 250V 183cm
1700008921	Power Cord PSE 3P 7A 125V 183cm
1700023855-11	M Cable HDMI 19P(M)/HDMI 19P(M) 100cm w/Lock
170203180A	Power Cord BSI 3P 2.5A 250V 183cm

Capture card

Part Number	Description
DVP-7011HE-1	1-ch Full HD H.264/MPEG4 PCIe video capture card with SDK
DVP-7611HE-1	1ch HDV/SDI/CVBS/YPrPr/S-video PCIe HW card
XOLY-BDLKDVQDHDMI4	DeckLink Quad HDMI Recorder
XOLY-BDLKHCPRO8K12	DeckLink 8K Pro capture card

DDR

Part Number	Description
SQR-SD5N8G4K8SNGBB	262pin SODIMM DDR5 4800 8GB 1.1v 1Gx16 (0-85°C)
SQR-SD5N16G4K8SNBB	262pin SODIMM DDR5 4800 16GB 1.1v 2Gx8 (0-85°C)
SQR-SD5N32G4K8SNBB	262pin SODIMM DDR5 4800 32GB 1.1v 2Gx8 (0-85°C)

Graphic Card

Part Number	Description
SKY-QUAD-4000SA-20	Quadro RTX 4000 SFF Ada PCIe 20GB DSLP w/ATX BKT
SKY-QUAD-2000A-16	Quadro RTX 2000 Ada PCIe 16GB DSLP w/ATX BKT

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 AX2106E 2230 M.2 Key E

I/O View

