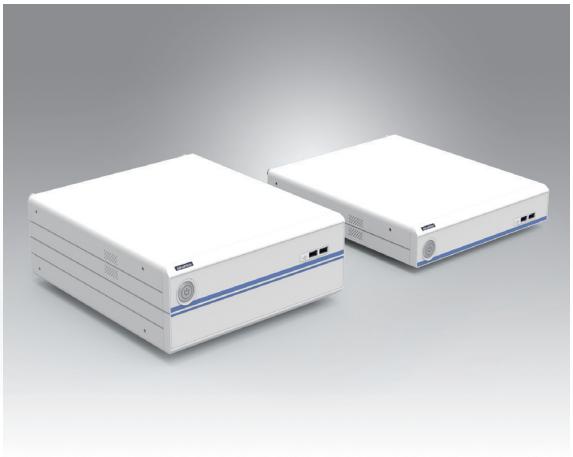
USM-300

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 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-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 LTSC/ 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)	16GB/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 PCIex4 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

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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

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-S25V4-1TDSDC	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)
SQF-C8MV4-2TDEDC	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)

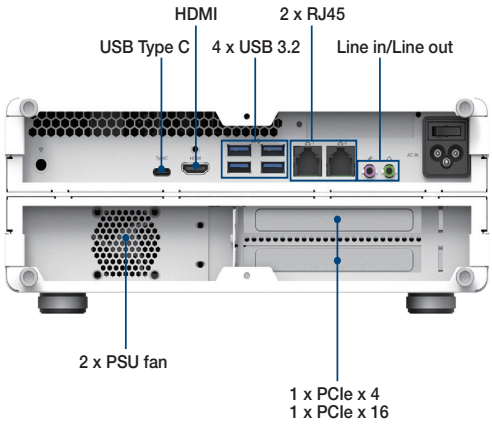
Graphic Card

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



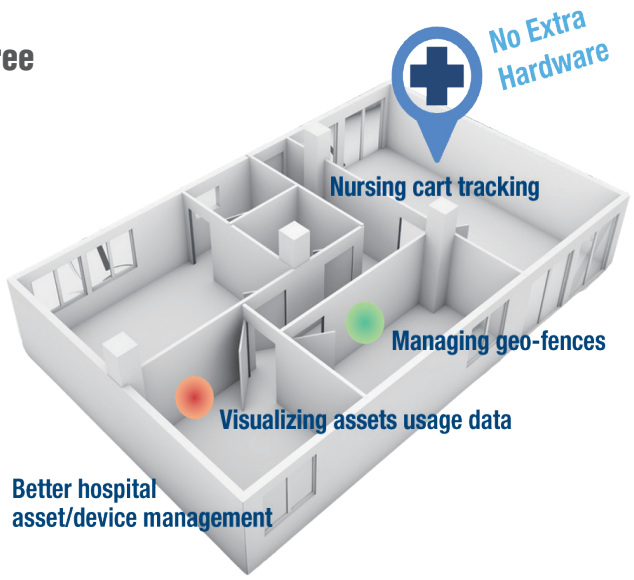
Software Add-ons

Device real-time location software

Wi-Fi RTLS infra-free

Seamlessly connect your edge computing devices into the RTLS system

Advantech Wi-Fi RTLS infra-free software enables immediate location tracking and status monitoring of devices. RTLS contributes to asset management, improves patient care efficiency, and ensures equipment is used sustainably. It also supports compliance with health and safety regulations.



Deploy Faster

Wi-Fi RTLS is a perfect fit for edge computing devices. By embedding the software, devices can seamlessly integrate into the RTLS system.

Order Information

Part Number	Description
31ASRTLSOF01B1	Android
31ASRTLSOF01B2	Windows
31ASRTLSOF01B3	Linux

Supported Models:
POC-4/6/8 series; USM-1/3/5 series ; HIT-3/5 series

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