USM-300

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

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-4000 SFF Ada 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® Core™ I5-13500E / i7-13700E / I9-13900E Processor
	Memory	Support DDR5 Memory up to 64GB (ECC support optional)
	Operating System	Windows 10 LTSC/ Windows 11 LTSC Linux and windows 2021 server (By project base)
Expansion Slot	PCIe x4 (Gen3)	4GB/s per direction (support 25W power budget per PCIe slot) (second layer configuration no such expansion in first layer)
	PCIe x16 (Gen4)	16GB/s per direction (support 75W power budget per PCIe slot) (second layer configuration no such expansion in first layer)
	M.2 (E key)	1 (Type 2230 for WIFI)
Physical Characteristics	Dimension	270 x 305 x 100/50 mm (dual/single)
Environment	Weight	7kg (TBD)
	Temperature	0-35 °C (OP), -20-70 °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	GPU Card (Optional)	SKY-QUAD-4000SA-20 or SKY-QUAD-2000A-16
Storage	SSD	1 x 2.5" up to 2TB
	NVME (M Key)	1 (Type :2280 NVMe PCIex4 M.2 support)
I/O	HDMI	1 (HDMI 2.0a 4096 x 2160 @ 60 Hz)
	USB 3.2 Type A	4 x USB 3.2 Type A (rear)/2 x USB 2.0 Type A (front))
	USB 3.2 Type C	1 x USB 3.2 Type C(rear)
	LAN (losation 1.5KV)	2 (LAN1: 1GbE Intel I219-LM, LAN2: 2.5GbE Intel I226LM)
	Audio	2 (Line-in/Line-out)
	Speaker	3W
Power Supply		Input Voltage: internal PSU 100-240V 8-4) 47~63 Hz, maximum output power 360W
Warranty		3 years
Certification		CE, FCC, CCC, IEC/EN 60601-1 3.2th, IEC/EN 60601-1-2 4.1th, RED

Dimensions

Unit: mm

270.8

305

50

50

Ordering Information

Standard Model

Part Number	Description	PSU	CPU	Memory	SSD
USM-300-D95G4AA1	USM-300 Dual Layer w/i9, DDR 16G, M.2 512G, 360W	360W	I9-13900E	16G	512G
USM-300-D75G4AA1	USM-300 Dual Layer w/i7, DDR 16G, M.2 512G, 360W	360W	I7-13700E	16G	512G
USM-300-D55G4AA1	USM-300 Dual Layer w/i5, DDR 16G, 2 512G, 360W	360W	I5-13500E	16G	512G
USM-300-S95G4AA1	USM-300 Single Layer w/i9, DDR 16G. M.2 512G,360W	360W	I9-13900E	16G	512G
USM-300-S75G4AA1	USM-300 Single Layer w/i7, DDR 16G, M.2 512G, 360W	360W	I7-13700E	16G	512G
USM-300-S55G4AA1	USM-300 Single Layer w/i5, DDR 16G, 2 512G, 360W	360W	I5-13500E	16G	512G

Component Offerings

2.5" SSD

Part Number	Description
SQF-S25V1-256GDSDC	SQF 2.5" SATA SSD 650-D 256G 3D TLC (BiCS5)
SQF-S25V2-512GDSDC	SQF 2.5" SATA SSD 650-D 512G 3D TLC (BiCS5)
SQF-S25V4-1TDSDC	SQF 2.5" SATA SSD 650-D 1T 3D TLC (BiCS5)

M.2 SSD

Part Number	Description
SQF-C8MV2-256GDEDC	SQF PCIe/NVMe M.2 2280 OPAL 720-D 256G 3D TLC BiCS5
SQF-C8MV2-512GDEDC	SQF PCIe/NVMe M.2 2280 OPAL 720-D 512G 3D TLC BiCS5
SQF-C8MV4-1TDEDC	SQF PCIe/NVMe M.2 2280 OPAL 720-D 1T 3D TLC BiCS5
SQF-C8MV4-2TDEDC	SQF M.2 2280 720-D 2T 3D TLC BiCS5

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
XUSM-UPA20A0	2pt. USB 3.2 Type C PD 100W PCIe Card

DDR

Part Number	Description
SQR-SD5N8G4K8SNGBB	262pin SODIMM DDR5 4800 8GB 1.1v 1Gx16
SQR-SD5N16G4K8SNBB	262pin SODIMM DDR5 4800 16GB 1.1v 2Gx8
SQR-SD5N32G4K8SNBB	262pin SODIMM DDR5 4800 32GB 1.1v 2Gx8
SQR-SD5N8G5K6SNGPB	SODIMM DDR5 5600 8GB 1Gx16 Samsung
SQR-SD5N16G5K6SNPB	SODIMM DDR5 5600 16GB 2Gx8 Samsung
SQR-SD5N32G5K6SNPB	SODIMM DDR5 5600 32GB 2Gx8 Samsung

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

HDMI
2 x RJ45
USB Type C
4 x USB 3.2
Line in/Line out

2 x PSU fan

1 x PCIe x 4
1 x PCIe x 16
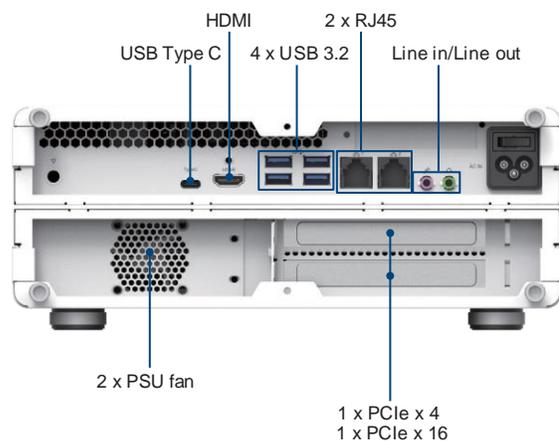
Software Add-ons
Device real-time location software

Wi-Fi RTLS infra-free

No Extra Hardware

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.

Nursing cart tracking

Managing geo-fences

Visualizing assets usage data

Better hospital asset/device management

Deploy Faster

Upload Floor Layout

Wi-Fi Signal Collection

AI Processing The Models And Bring The System Online
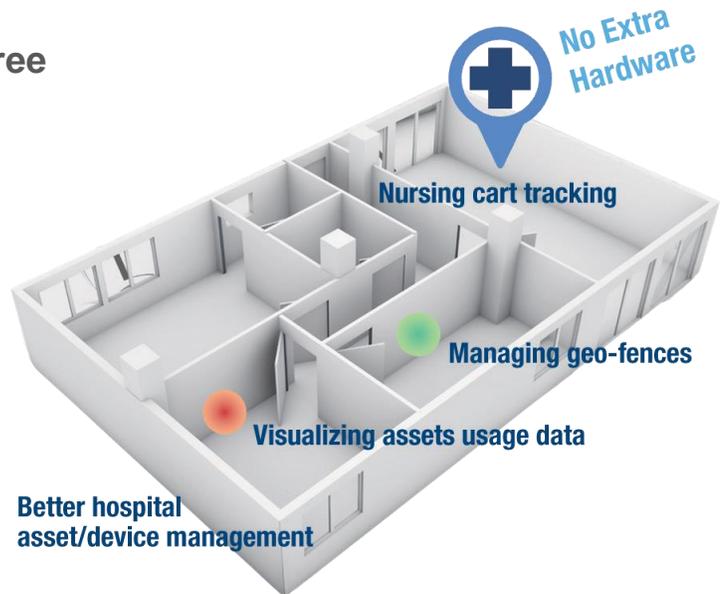
Wi-Fi RTLS is a perfect fit for edge computing devices. By embedding the software, devices can seamlessly integrate into the RTLS system.

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

Contact us

Email: AiH.service@advantech.com

Click the link to visit our product page for more details, or scan the QR code.