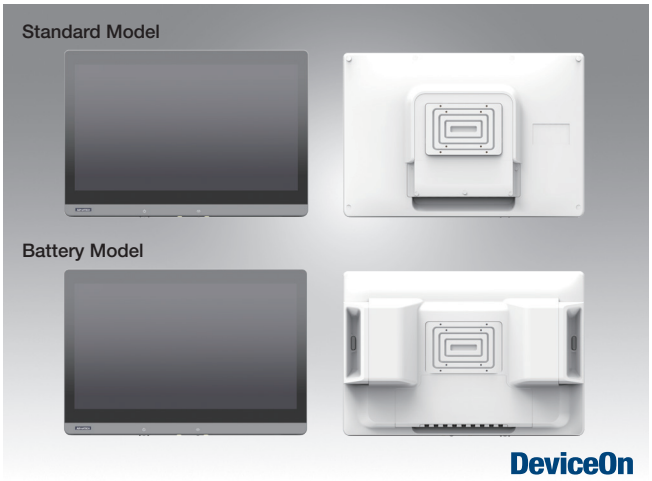
POC-421

21" Point-of-Care Terminal with 14th Generation Intel® Processor



Features

- 14th generation Intel® Core™ Ultra 5 or Ultra 7 processor
- 21.5" full HD display with multi-touch P-CAP control
- M.2 expansion slots for integrating add-on modules
- Fanless design with upgrade IP54-rated protection for superior hygiene and infection control
- Equipped with Advantech's DeviceOn device management software
- Optional Wi-Fi 6, Bluetooth, Dual RFID, smart card reader and auto-focus 5 megapixel camera
- Equipping battery packs enhances its suitability for medical cart mobility
- Large-capacity batteries (140Wh x2) to support 10-12 hours of runtime
- Available for adding an additional backup battery for non-stop power during battery swapping
- Isolated I/O ports are supported

Introduction

POC-421, featuring an integrated NVME SSD for real-time data processing and storage, now includes the added benefit of enhanced suitability for medical cart mobility through equipping battery packs. Compliant with IEC/EN60601-1-2 Medical EMC standards, POC-421 terminals ensure reliable operation in diverse healthcare environments.

Moreover, POC-421 is equipped with Advantech's DeviceOn software, which is a next-generation unified device management solution based on the WISE-DeviceOn platform. With support for batch operations and multi-device control, DeviceOn enables easy device configuration and deployment for convenient remote device management.

Specifications

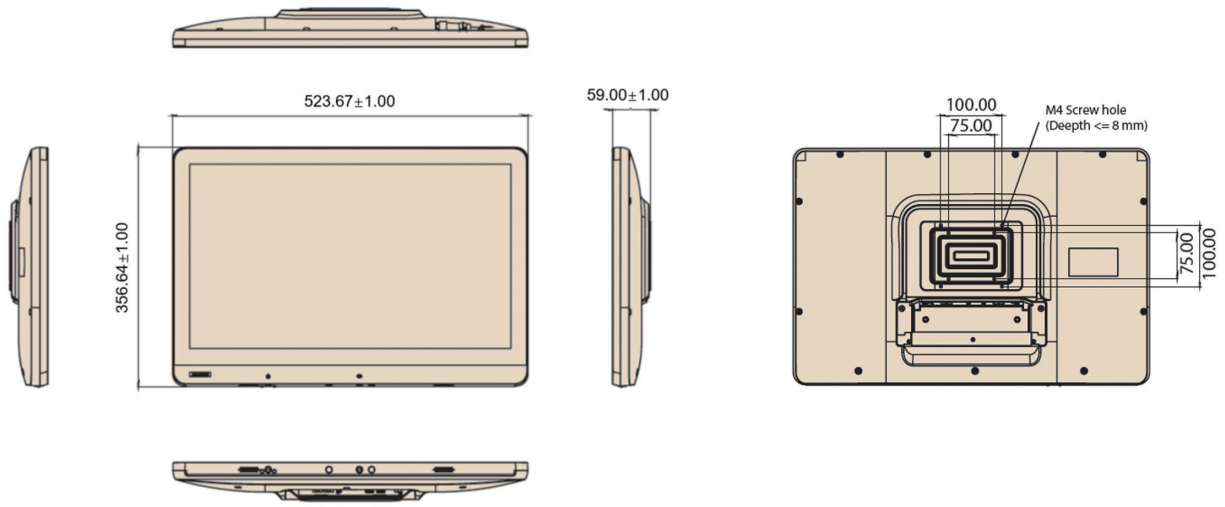
System	Processor	14th generation Intel® Core™ Ultra 5 processor, up to 4.30 GHz or Intel® Core™ Ultra 7 processor, up to 4.8GHz
	Memory (default)	Memory (default) 16GB DDR5 (supports up to 32GB DDR5 SODIMM) Operating System (optional) Windows 10 IoT Ent (64 bits only); Windows 11 Pro (64 bits only), Ubuntu 22.04
Storage	Primary Storage (optional)	NVME M.2 SSD 256GB (M.2 2280)
Display	Size	21.5"
	Max Resolution	1920 x 1080 (FHD)
	Contrast Ratio	1000
	Touch Function	10-point multi touch P-CAP (clear glass), AG option
I/O	USB 3.2 Type A	4
	USB 3 Type C	1 (With 27W, maximum 9V/3A, power delivery, and ALT mode support.)
	HDMI	1
	LAN (1.5KV Isolation)	2
	COM (RS232)	1 (Optional USB 2.0 x 2)
	Mic in/head phone out	1 TRRS port
Expansion Slots	M.2 2230 E. Key	1 (for Wi-Fi 6 /Bluetooth 5.3 module)
	iDoor	4KV idoor (1COM+2USB); 4KV idoor (1LAN); 1.5KV idoor (1COM), optional by only Battery Model
Other Functions	Power Button	1
	Speaker	2 x 2W
	Book Light	Support
	Camera	1 x 5 megapixel (optional)
	TPM 1.2/2.0	2.0
Power Input	DC / AC	DC 19V (Medical DC Jack pin)
IP Rating	Front Panel	IP65
	System	IPX1 (I/O without cover) with Standard Model IP43 (I/O with cover) with Battery IP54 (I/O with cover) without Battery
Authentication Solution (Either or)	RFID Reader	Optional (select either RFID or Smart Card Reader)
	Smart Card Reader	Optional (select either RFID or Smart Card Reader)
Battery Solutions	Backup Battery	20Wh (optional only by Battery Model)
	Hot-Swap Battery	140Wh x2 (default), only by Battery Model
	Charging in Charging Station	2 slots: Charging time <2 Hours from 20% to 80%
Certificate	EMC & Safety	Medical CE/FCC MDR RED ErP Battery pack: IEC62133, UN38.3
Physical Characteristics	Dimensions (W x H x D)	524 x 357 x 59 mm/20.63 x 14.06 x 2.32 in (Standard Model)
	Weight	6.29 kg/13.86 lb (Standard Model)
	VESA Mount	100 x 100; 75 x 75 mm
Environment	Temperature	0 - 35 °C/32 ~ 95 °F (Operating) 0 - 50 °C/32 ~ 122 °F (Storage)
	Humidity	95%,40°C (Operating) 95%,60°C (Storage)
	Shock Resistance	10G peak acceleration (11 ms duration)
Warranty	System	3 year

All product specifications are subject to change without notice.

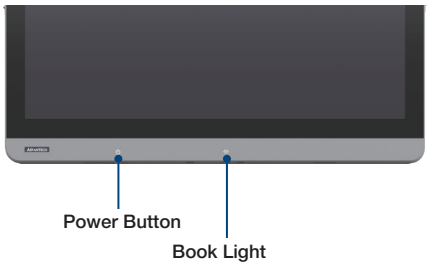
Last updated: 13-Dec-2024

Standard Model Dimensions

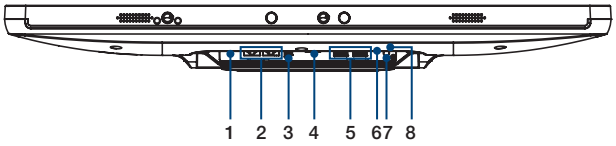
Unit: mm



Front Function Keys



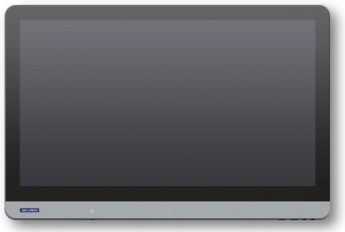
I/O Ports



1. DC-IN 19V
2. 2 x Giggabit Ethernet (Isolation)
3. HDMI
4. 1 x COM port (RS232)
5. 4 x USB 3.1
6. Mic in/Headphone out
7. 1 x Type C
8. Equipotential terminal PIN

Multimodal

All-in-One PC

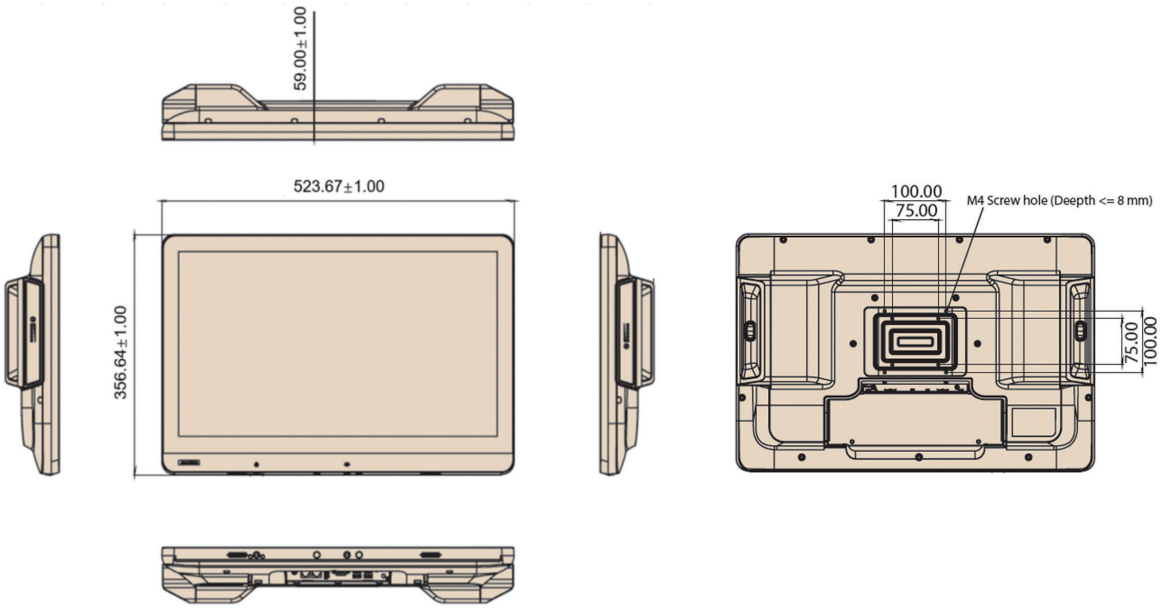


Touch Display (PAX-1)

Box PC (USM-100)

Battery Model Dimensions

Unit: mm



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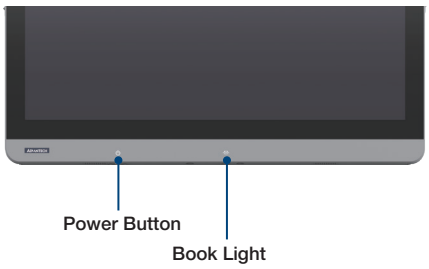
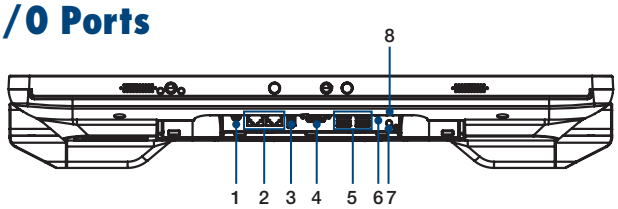


I/O Ports



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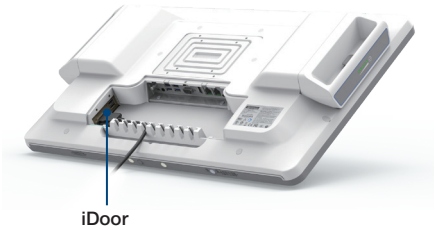
Medical Carts

AMiS-30EG

AMiS-30EP

iDoor Ports



Optional isolated iDoor selected each as blow:
1. 1 x COM + 2 USB 4KV*
2. 1 x LAN 4KV*
3. 1 x COM 1.5KV*

Battery Model Accessories

Hot-Swapping Battey Module

LED Indicator

Charging Station

Battery Module

Part Number	Description
96PD-01847	Battery pack with (1 pcs) 140Wh Battery of POC – 4 Hot-Swap Power system
POC-IPSM150CS2	Charging station (2 slots) of POC -4 Power System

Battery Pack Specification

Standard Version	96PD-01847
Battery Pack Type	Lithium-ion battery
Battery Pack Capacity	140Wh
Total Capacity**	280Wh (2 x battery packs, 140Wh per battery)
Battery Runtime	9~11 hours
Battery Lifespan	500 cycle time 70%
Capacity Indicator	LED indicator with 5 levels
Weight (Estimated)	868g/1.9lb

**Hot swap batteries are 2 pieces.

Recommended Mounting Solution

Model Name	ARES-2421R
Part Number	ARES-2421R-HA74100
Photo	
Max. Support Weight	2 - 8kg
Max. Support Panel Size	≦27"
VESA Information	75 x 75 mm 100x100 mm

For more information, please clink this link: https://bit.ly/3T7dLMR

CTOS Service

Ordering Information

Level	Part number	Description	CPU	DRAM	Battery	Touch	SSD	WIFI & BlueTooth
Medical	POC-421-14A01D-CE	21.5", Core U7, 16G RAM, 256G, WIFI6, IP54, P-CAP Touch, MDR	Ultra 7	16GB DDR5	NA	P-CAP	256G	WIFI 6 & BlueTooth 5.3
Medical	POC-421-14B01D-CE	21.5", Core U5, 16G RAM, 256G, WIFI6, IP54, P-CAP Touch, MDR	Ultra 5	16GB DDR5	NA	P-CAP	256G	WIFI 6 & BlueTooth 5.3
Medical	POC-421-14A02B-CE	21.5", Core U7, 16G RAM, 256G, WIFI6, IP43, BAT Ver., P-CAP Touch, MDR	Ultra 7	16GB DDR5	Optional Battery	P-CAP	256G	WIFI 6 & BlueTooth 5.3
Medical	POC-421-14B02B-CE	21.5", Core U5, 16G RAM, 256G, WIFI6, IP43, BAT Ver., P-CAP Touch, MDR	Ultra 5	16GB DDR5	Optional Battery	P-CAP	256G	WIFI 6 & BlueTooth 5.3

*This model is default without 20Wh backup battery (optional).

WIFI, IP54 / IP43, Touch Display Module

Part number	Description	Grade
98R8POC4080	POC-421,IP54,waterproof suite kit package,w/o Battery	Global/IP54
98R8POC4081	POC-421,IP43,waterproof suite kit package,w/ Battery	Global/IP43
98R8POC4040	POC-4,21.5" Touch display module,W/Cover	Global

Memory

Part number	Description
SQR-SD5N8G5K6SNGPB	262pin SODIMM DDR5 5600 8GB 1.1v 1Gx16 (0-95 °C) Samsung
SQR-SD5N16G5K6SNPB	262pin 5600 2GX8 16GB SODIMM 1.1v 2Gx8 (0~95 °C) Samsung
SQR-SD5N32G5K6SNPB	262pin 5600 2GX8 32GB SODIMM 1.1v 2Gx8 (0~95 °C) Samsung

M.2 2280 SQF NVME

Part number	Description
SQF-C8MV2-256GDFES	SQF PCIe/NVMe M.2 2280 OPAL 730-D, Gen.4, LPM ON, 256G 3D TLC BiCS5 (-20~85°C)
SQF-C8MV2-512GDFES	SQF PCIe/NVMe M.2 2280 OPAL 730-D, Gen.4, LPM ON, 512G 3D TLC BiCS5 (-20~85°C)
SQF-C8MV4-1TDFES	SQF PCIe/NVMe M.2 2280 OPAL 730-D, Gen.4, LPM ON, 1T 3D TLC BiCS5 (-20~85°C)