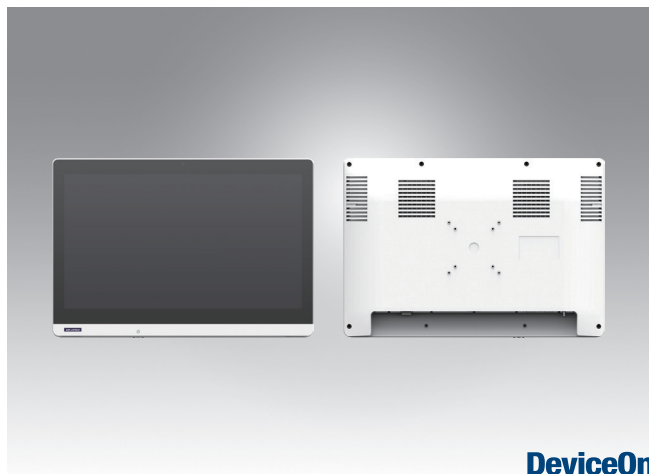


# POC-821

## 21" Medical Edge AI Panel PC with Intel 13th Gen. CPU and NVIDIA GPU



### Features

- Intel 13th Gen Core i7-13700E CPU
- 21.5" full HD display, multi-touch
- MXM modules A2000 / A4500 supported for high-end graphics
- IP65 front side for Infection control
- Medical 60601-1 compliance
- Optional Wi-Fi, Bluetooth, RFID and camera
- Equipped with Advantech's DeviceOn device management software
- Dual PCIe Slots for graphic and add-on card expansion



### Introduction

POC-821 is equipped with an integrated SSD, which facilitates real-time data processing and storage. It also supports MXM graphics modules and add-on cards like data capture, I/O extension for high-end graphic applications. Compliant with IEC 60601-1 medical safety standards for electrical devices, POC-8 terminals are built for reliable operation in a wide range of healthcare environments.

Moreover, POC-821 is equipped with Advantech's DeviceOn/iService 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/iService enables easy device configuration and deployment for convenient remote device management.

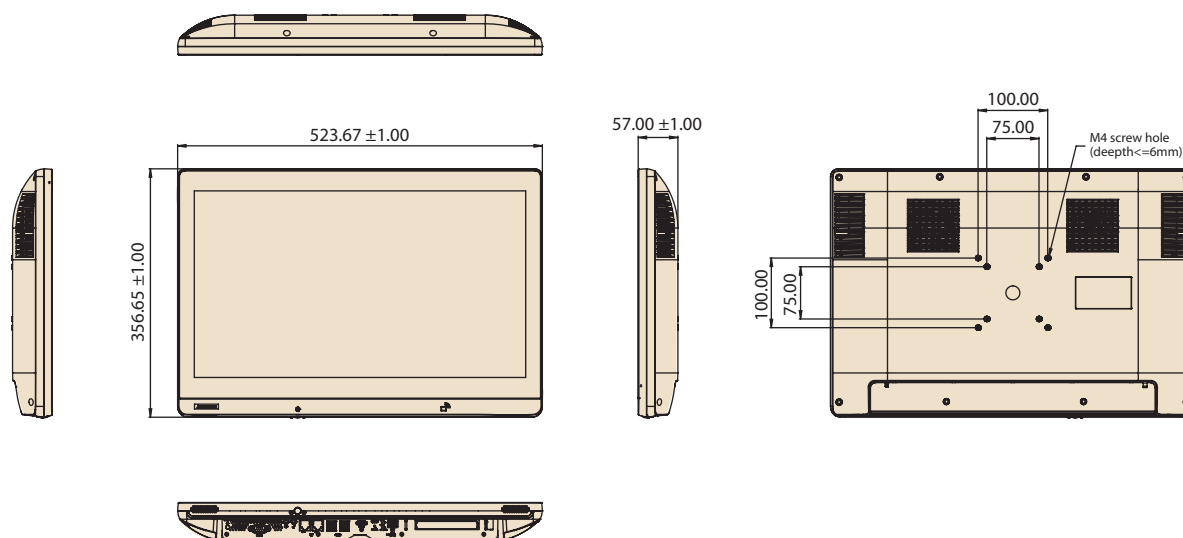
### Specifications

Computing System	CPU*	Intel® Core™ i7-13700E Processor, 16 Core, 1.9GHz (24M Cache, up to 5.10 GHz)
	Memory	Support DDR5 Memory up to 64GB (ECC support optional)
	Operating System (Optional)	Windows 10 IoT / Windows 11 IoT / Linux (Supported upon request) 64 bits only
Storage	Primary Storage	Support NVME M.2 SSD (up to 2TB)
	Secondary Storage (optional)	Support 2.5" SATA SSD (up to 1TB)
Display	Size	21.5"
	Max Resolution	1920 x 1080 Full HD
Touch	Type	Projected Capacitive 10-points (Clear Glass). (AG/AR support by request)
Graphic	MXM Graphic Module (optional)	NVIDIA A2000 (8GB) or A4500(16GB) MXM MSH mode module
I/O ports	DC In	x 1
	USB 3.2 Type A	x 4
	USB 3.2 Type C	x 1 (with display function / DP ALT mode, 10 Gbps, Max.5V 3A power output)
	HDMI 2.0	x 1
	LAN (Isolation 1.5 KV)	x 2
	Headphone out	x 1
	Mic-In	x 1
	COM (RS232) (Isolation 1.5 KV)	x 1
Expansion Slots	PCIe x 16	x 1 (The slot is reserved for MXM graphic module)
	PCIe x 4	x1 (Max. card length 167.65mm, single deck / Max. power consumption 10W)
	M.2 2280	x 1 (for NVME M.2 SSD Primary storage)
	M.2 2230	x 1 (for Wi-Fi/ Bluetooth module)
Other Functions	Speaker	x 2 (2W)
	Camera (optional)	5M pixel camera available
	TPM	2.0 (default)
Power Input	DC	DC input 24V (Adapter 100~240V/AC, max. 300W)
IP Rating	Front Panel	IP65
Authentication Solution	RFID (optional)	Module as option available
Certificate	EMC & Safety Certificate	Medical CE, FCC
		Medical, IEC 60601-1 Compliance (MDR) UL 60601-1 CCC
Physical Characteristics	Dimensions (W x H x D)	523.67 x 356.65 x 57mm (20.6" x 14.01" x 2.24")
	VESA Mount	100 x 100; 75 x 75 mm
	Weight	7 kg (15.43 lbs)
Environment	Temperature	Operating: 0° C ~ 35° C
		Storage: 0° C ~ 50° C
Warranty	Warranty	System : 3 year

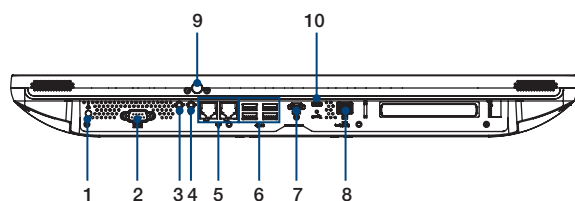
\*Other CPUs supported by project. For details, please contact the sales team.

## Dimensions

Unit: mm



## I/O Ports



- |                               |                             |
|-------------------------------|-----------------------------|
| 1. Equipotential Terminal Pin | 6. 4 x USB 3.2 Gen 2 Type A |
| 2. COM Port (RS232)           | 7. HDMI                     |
| 3. Headphone out              | 8. DC-In                    |
| 4. MIC In                     | 9. Power Button             |
| 5. 2 x LAN Ports              | 10. USB 3.2 Gen 2 Type C    |

## CTOS Service

### System's Barebone PN

Part Number	Description	Panel size	CPU	RAM	Touch type	SSD
POC-821-12B010-CA	POC-821 Corei7/P-cap/ w/o RAM, SSD, MXM	21.5"	i7-13700E	NA	P-CAP	NA
1970005856T001	(CPU Thermal Module) C.L R4 Intel.-Alder Lake-S 65W 244.7x242.68x27.4	----	----	----	----	----

\*Note: One CPU thermal module default in system barebone already.

### MXM GPU Card Package ( W/ MXM GPU card , MXM carrier board and MXM Thermal Module)

Part Number	Description	GPU model name	GPU MXM Memory size
POC-MXM-102-8A	POC-821/824 MXM A2000 package	A2000	8GB
POC-MXM-104-8A	POC-821/824 MXM A4500 80W package	A4500	16GB

### Memory

Part Number	Description
<b>262pin SO DIMM 5600 - Non ECC</b>	
SQR-SD5N8G5K6SNGPB	262pin SODIMM DDR5 5600 8GB 1.1v 1Gx16 (0~95°C)
SQR-SD5N16G5K6SNPB	262pin SODIMM DDR5 5600 16GB 1.1v 2Gx8 (0~95°C)
SQR-SD5N32G5K6SNPB	262pin SODIMM DDR5 5600 32GB 1.1v 2Gx8 (0~95°C)
SQR-SD5N8G5K6HNGAG	262pin SODIMM DDR5 5600 8GB 1.1v 1Gx16 (0~95°C)
SQR-SD5N16G5K6HNAG	262pin SODIMM DDR5 5600 16GB 1.1v 2Gx8 (0~95°C)
SQR-SD5N32G5K6HNAG	262pin SODIMM DDR5 5600 32GB 1.1v 2Gx8 (0~95°C)
<b>262pin SO DIMM 5600 - ECC</b>	
SQR-SD5N32G5K6SEPB	262pin ECC SODIMM DDR5 5600 32GB 1.1v 2Gx8 (0~95°C)
SQR-SD5N16G5K6SEPB	262pin ECC SODIMM DDR5 5600 16GB 1.1v 2Gx8 (-40~95°C)
SQR-SD5N32G5K6SEPB	262pin ECC SODIMM DDR5 5600 32GB 1.1v 2Gx8 (-40~95°C)

### NVME M.2 SSD Storage

Part Number	Description
SQF-C8MV2-256GDEDM	SQF PCIe/NVMe M.2 2280 OPAL 720-D 256G 3D TLC BiCS5 (-20~85°C)
SQF-C8MV2-512GDEDM	SQF PCIe/NVMe M.2 2280 OPAL 720-D 512G 3D TLC BiCS5 (-20~85°C)
SQF-C8MV4-1TDEDM	SQF PCIe/NVMe M.2 2280 OPAL 720-D 1T 3D TLC BiCS5 (-20~85°C)
SQF-C8MV4-2TDEDM	SQF PCIe/NVMe M.2 2280 OPAL 720-D 2T 3D TLC BiCS5 (-20~85°C)
SQF-C8BV2-256GDEDM	SQF PCIe/NVMe M.2 2280 OPAL 720-D 256G 3D TLC BiCS5 (-20~85°C)
SQF-C8BV2-512GDEDM	SQF PCIe/NVMe M.2 2280 OPAL 720-D 512G 3D TLC BiCS5 (-20~85°C)
SQF-C8BV4-1TDEDM	SQF PCIe/NVMe M.2 2280 OPAL 720-D 1T 3D TLC BiCS5 (-20~85°C)
SQF-C8BV4-2TDEDM	SQF PCIe/NVMe M.2 2280 OPAL 720-D 2T 3D TLC BiCS5 (-20~85°C)

### Power Cord

Region	Part number
USA (Thailand, Philippines)	1702002600
Europe (Indonesia)	1702002605
UK (Singapore, Malaysia)	1700032693-11
Japan (PSE)	1700000237

### OS Image

OS version	Part number
Win10 LTSC 2021	20708WX1HS0028 (for i7/ i9 processor) 20708WX1VS0041 (for i3/i5 processor)
Win11 LTSC 2024	20708WLH1S0006 (for i7/i9 processor) 20708WLH1S0012 (for i3/i5 processor)

### 2.5" SSD Storage

Part Number	Description
SQF-S25V1-128GSDC	SQF 2.5" SSD 650 128G 3D BiCS5 (0~70°C)
SQF-S25V1-256GSDC	SQF 2.5" SSD 650 256G 3D BiCS5 (0~70°C)
SQF-S25V2-512GSDC	SQF 2.5" SSD 650 512G 3D BiCS5 (0~70°C)
SQF-S25V4-1TSDC	SQF 2.5" SSD 650 1T 3D BiCS5 (0~70°C)
AMF-S25V2-256GDSBC	AMF 2.5" SATA SSD SP111-D 256G 3D TLC (BiCS5) (0~70°C)
AMF-S25V4-512GDSBC	AMF 2.5" SATA SSD SP111-D 512G 3D TLC (BiCS5) (0~70°C)
AMF-S25V4-1TDSBC	AMF 2.5" SATA SSD SP111-D 1T 3D TLC (BiCS5) (0~70°C)

\*Note: Add materials listed under "2.5" SSD mounting kit" for 2.5" SSD installation


### 2.5" SSD Mounting Kit

Part Number	Description	Quantity
1960098903N001	SSD Bracket	1
1940003234	Gasket	1
19330304A0	Screw	8
2130022205T000	Sponge	1
1700024977-21	SATA cable	1
1700022355-21	Power cable	1

### Wi-Fi + BT Module

Part Number	Description
EWM-W165M201E	Intel AX210 6E 802.11ax + BT5.2 M.2 2230 No.Vpro

## Recommended Mounting Solution

Model Name	ARES-2423R
Part Number	ARES-2423R-A741L00
Photo	
Max. Support Weight	6 - 12kg
Max. Support Panel Size	≤ 27"
VESA Information	75 x 75 mm 100x100 mm

For more information, please click this link: <https://bit.ly/3T7dLMR>

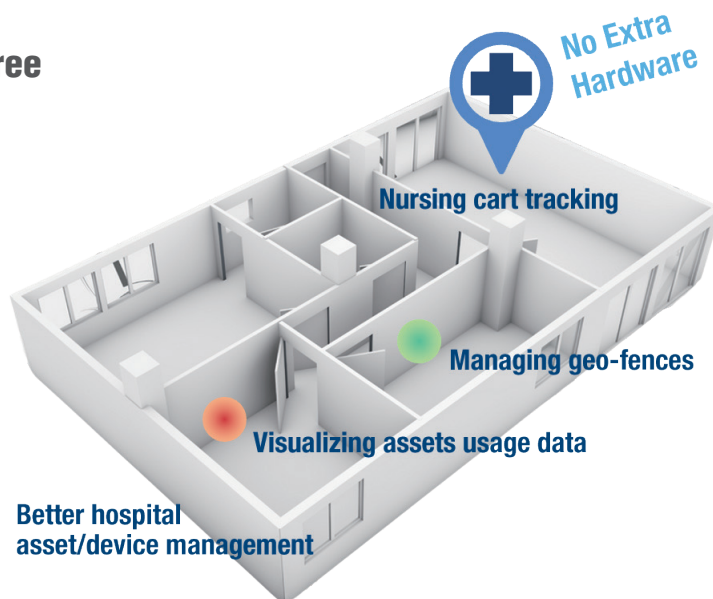
# Software Add-ons

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

## Contact us

Email: [AIH.service@advantech.com](mailto:AIH.service@advantech.com)

Click the [link](#) to visit our product page for more details, or scan the QR code.



# DeviceOn



## Introduction

Advantech DeviceOn is a remote device management platform designed for efficient deployment, monitoring, and maintenance at scale. It reduces on-site workload by offering centralized control over all connected devices.

In addition to core management, DeviceOn includes practical troubleshooting tools such as remote desktop, log access, event tracking, and alert notifications—helping teams quickly resolve issues and minimize downtime. It also supports remote OS updates, ensuring devices stay current and secure.

Built by Advantech's in-house teams and tightly integrated with Advantech hardware, DeviceOn delivers strong compatibility, system reliability, and long-term support through a fully vertically integrated design.

## Key Functions

### Device Provisioning



#### Device Onboarding

- Support Windows, Linux, Android
- Quick device enrollment process
- Full User Permission Management



#### Device Staging

- OS/System Auto Configuration
- Software/peripheral watchlist
- Automatic software provisioning



#### Device Updating

- Secure file transfer
- Manage and update software
- Android OS upgrades

### Device Management



#### Monitoring & Notifications

- Connection & hardware status
- Software & peripheral status
- Device Abnormal Event Alerts
- Abnormal Event Management



#### Remote Control & Recovery

- Reboot & Power controls
- Audio & Backlight settings
- Screenshots & Remote Desktop
- Remote SSH (Ubuntu)



#### Device Security

- Software install/update history
- Device auto lock to protect data
- App install/uninstall policy
- Device usage restriction settings

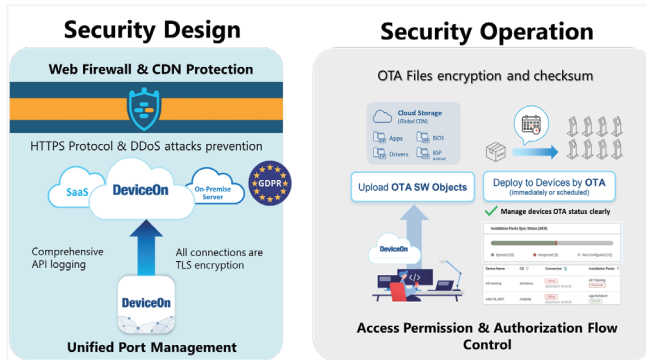
## Service & Specifications

### Function List

	Windows	Android	Linux(Ubuntu)	Builder	Manager
	10, 11	8+	20.04+	Only available on SaaS	
Profile – OS Settings (KIOSK Mode, others are OS dependent)	✓	✓		✓	✓
Profile – Alarm Rules, Software & Peripheral Monitoring, Task Schedule	✓	✓	✓	✓	✓
Profile – Device Security (Auto Lock, app install policy)		✓		✓	✓
OTA – Update Operating System		✓		✓	✓
OTA – Manage Installation Packs, Remote App Installation, Script Deployment & Execution	✓	✓	✓	✓	✓
OTA – Synchronized File Transfer to Multiple Endpoints	✓		✓	✓	✓
OTA – Remotely Download 3rd-party Application Logs	✓	✓	✓		✓
Monitoring – Hardware Status (CPU/RAM/Storage/Battery)	✓	✓	✓		✓
Monitoring – Software Status (Running Status/CPU & Memory Usage)	✓	✓	✓		✓
Monitoring – Advanced Battery Management <a href="#">[Specific Battery Models]</a>	✓				✓
Monitoring – Peripherals & Display (Connection Status) <a href="#">[USB Only]</a>	✓	✓	✓		✓
Control – Adjust Volume & Backlight, Screenshot, Reboot & Shutdown	✓	✓	✓		✓
Control – Download System Log and Network Information		✓			✓
Control – Remote Desktop	✓	✓	✓		✓
Control – Remote SSH			✓		✓
User Management – Manage User-accessible Feature Permissions	✓	✓	✓	✓	✓
User Management – Manage User Device Management Permissions	✓	✓	✓	✓	✓

# DeviceOn

## Server Security Enhancements



DeviceOn prioritizes information security. The server incorporates the following features to enhance protection:

- Supports only TLS 1.2 and TLS 1.3 protocols, removing older, insecure versions.
- Utilizes dual-network separation, with all connections centrally managed through a secure proxy server.
- Provides end-to-end encrypted transmission for OTA file transfers, API communications, and remote control operations.
- Records all connection activities for comprehensive analysis and auditing.

## Ordering Information

Ordering P/N	Product	Cloud(Server) Type	Description
36CSDOISSASP01	Device Subscription	SaaS Cloud	Annual Cloud Service for 1 device (365 days)
36CSDOISSASP03	Data Traffic	SaaS Cloud	Recharge with around 240GB more data traffic
36CSDOISPSRP01	Device License	On-Premise Server	Perpetual License for 1 device
36CSDOISPSRP02	Server License	On-Premise Server	Server Activation License (valid for 1 server installation - including 2-year software warranty)
36CSDOISPSRP03	Extended Warranty	On-Premise Server	Annual Maintenance & Upgrade Fee (beyond the standard 2-year warranty)