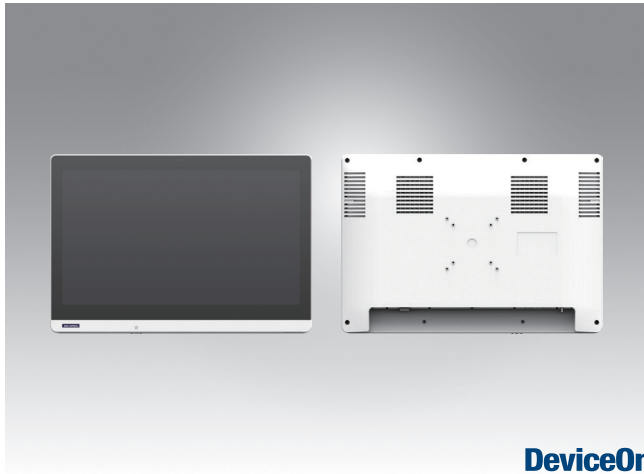


POC-821

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.

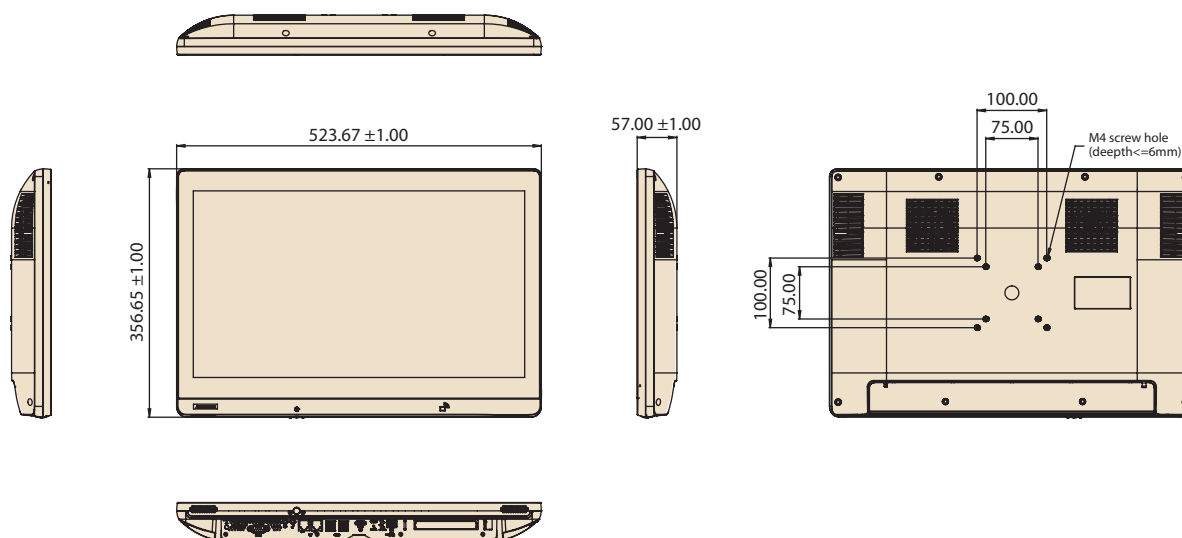
Specifications

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

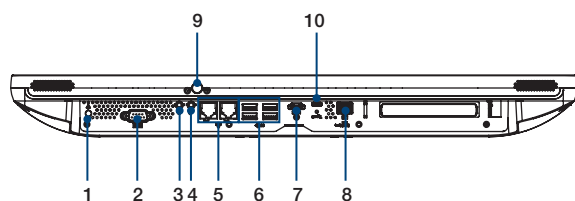
*Other CPUs supported by project. For details, please contact the sales team.

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 Core i7/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
262pin SO DIMM 4800 - Non ECC	
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)
SQR-SD5I8G4K8SNGBB	262pin SODIMM DDR5 4800 8GB 1.1v 2Gx8 (-40~95°C)
SQR-SD5I16G4K8SNBB	262pin SODIMM DDR5 4800 16GB 1.1v 2Gx8 (-40~95°C)
SQR-SD5I32G4K8SNBB	262pin SODIMM DDR5 4800 32GB 1.1v 2Gx8 (-40~95°C)
262pin SO DIMM 5600 - Non ECC	
SQR-SD5N16G5K6HNAB	262pin SODIMM DDR5 5600 16GB 1.1v 2Gx8 (0~95°C)
SQR-SD5N32G5K6HNAB	262pin SODIMM DDR5 5600 32GB 1.1v 2Gx8 (0~95°C)
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)
262pin SO DIMM 4800 - ECC	
SQR-SD5N16G4K8SEBB	262pin ECC SODIMM DDR5 4800 16GB 1.1v 2Gx8 (0~85°C)
SQR-SD5N32G4K8SEBB	262pin ECC SODIMM DDR5 4800 32GB 1.1v 2Gx8 (0~85°C)
262pin SO DIMM 5600 - ECC	
SQR-SD5N32G5K6SEPB	262pin ECC SODIMM DDR5 5600 32GB 1.1v 2Gx8 (0~95°C)

NVME M.2 SSD Storage

Part Number	Description
SQF-C8MV2-256GDEDMD	SQF PCIe/NVMe M.2 2280 OPAL 720-D 256G 3D TLC BiCS5 (-20~85°C)
SQF-C8MV2-512GDEDMD	SQF PCIe/NVMe M.2 2280 OPAL 720-D 512G 3D TLC BiCS5 (-20~85°C)
SQF-C8MV4-1TDDEDMD	SQF PCIe/NVMe M.2 2280 OPAL 720-D 1T 3D TLC BiCS5 (-20~85°C)
SQF-C8MV4-2TDDEDMD	SQF PCIe/NVMe M.2 2280 OPAL 720-D 2T 3D TLC BiCS5 (-20~85°C)
SQF-C8BV2-256GDEDMD	SQF PCIe/NVMe M.2 2280 OPAL 720-D 256G 3D TLC BiCS5 (-20~85°C)
SQF-C8BV2-512GDEDMD	SQF PCIe/NVMe M.2 2280 OPAL 720-D 512G 3D TLC BiCS5 (-20~85°C)
SQF-C8BV4-1TDDEDMD	SQF PCIe/NVMe M.2 2280 OPAL 720-D 1T 3D TLC BiCS5 (-20~85°C)
SQF-C8BV4-2TDDEDMD	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)	1700018704
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-S25V1-128GSDSC	SQF 2.5" SSD 650 128G 3D BiCS5 (0~70°C)
SQF-S25V1-256GSDSC	SQF 2.5" SSD 650 256G 3D BiCS5 (0~70°C)
SQF-S25V2-512GSDSC	SQF 2.5" SSD 650 512G 3D BiCS5 (0~70°C)
SQF-S25V4-1TSDSC	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/37TdLMR>

DeviceOn

Unified Remote Device Management Software



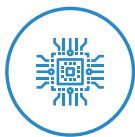
Features

- Supports Advantech devices equipped with Windows, Android, and Linux OS
- Flexible device, location, user, and permissions management
- Enables remote monitoring and control of hardware, software, and peripherals
- Supports over-the-air (OTA) firmware and software updates
- Ensures quick, easy, and secure device onboarding
- RESTful APIs for third-party system integration

Introduction

Advantech's DeviceOn is a next-generation unified device management solution based on the WISE-DeviceOn platform. Designed to enable centralized monitoring and remote management, DeviceOn supports Advantech devices equipped with Windows, Linux, or Android operating systems. The software also supports the management of applications and integrated peripherals, such as a barcode scanner, card reader, camera, and printer. Users can remotely access and control connected devices, take screenshots, rollout OTA upgrades, and use remote desktop capabilities for troubleshooting from any location at any time. Moreover, DeviceOn supports batch operations to facilitate the management of multiple devices simultaneously for easy and convenient device configuration and deployment.

Total Management



Devices & Hardware

- Windows, Linux, Android
- Hardware, storage, battery



Software & Peripherals

- Software monitoring & access
- Screens, USB devices, printers



Open for Expansion

- Peripheral integration
- Open APIs for integration

Remote Access



Real-Time Monitoring

- Connection/hardware status
- Software/peripheral status
- Failure notifications



Remote Controls

- Power controls
- Audio, backlight controls
- Software controls



Troubleshooting

- Screenshots
- Remote desktop support

Operational Efficiency



OTA updates

- System/software updates
- File repository management
- App store



Batch Controls

- 1-to-many batch reboot, etc.
- Time-saving tasks

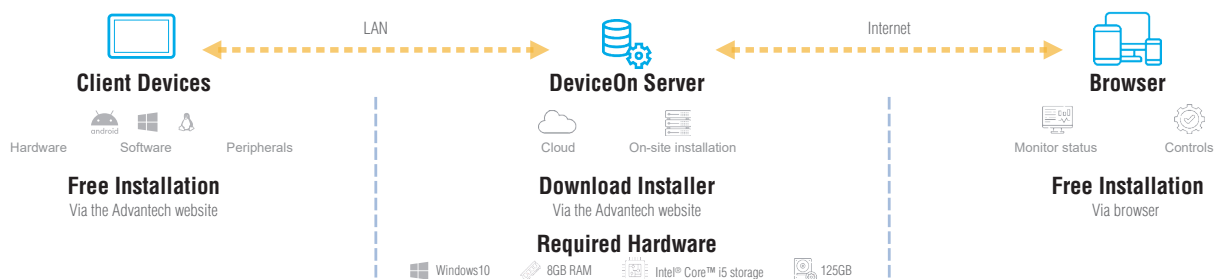


Setup Booster

- Software/peripheral watchlist
- Roles, rule templates

Note: Some functions may vary according to the product

System Architecture



DeviceOn Specifications

DeviceOn Remote Device Management	Operating System	Windows 10
	Common Controls (Reboot, Shutdown)	✓
	Remote desktop	✓ (VNC)
	Device-Specific Controls (Audio, Backlight)	✓*
	Connection Status	✓
	Hardware Status	✓*
	Hard Disk Status	✓*
	Batch Operation Support	✓
	OTA Storage Management	FTP
	OTA Software Updates	✓
	Software Watchlist	✓
	Software Start/Stop	✓*
	* Dependant on device model	
	Peripherals Watchlist	✓*

Note:

1. DeviceOn software must be downloaded from the Advantech website at <https://www.advantech.com/search/?q=DeviceOn%2FiService&st=support&sst=Utility>