POC-421

21" Multimodal Terminal with 8th Generation Intel® Processor

Features

- 8th generation Intel® Core™ i5/celeron 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, Bluetooth, RFID, smart card reader and auto-focus 5 megapixel camera
- Optional Mic-In/ Headphone-Out applications

Introduction

POC-421 is equipped with an integrated NVME SSD that facilitates real-time data processing and storage. Compliant with IEC/EN60601-1-2 Medical EMC standards for electrical devices, POC-421 terminals are built for reliable operation in a wide range of healthcare environments.

Moreover, POC-421 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.

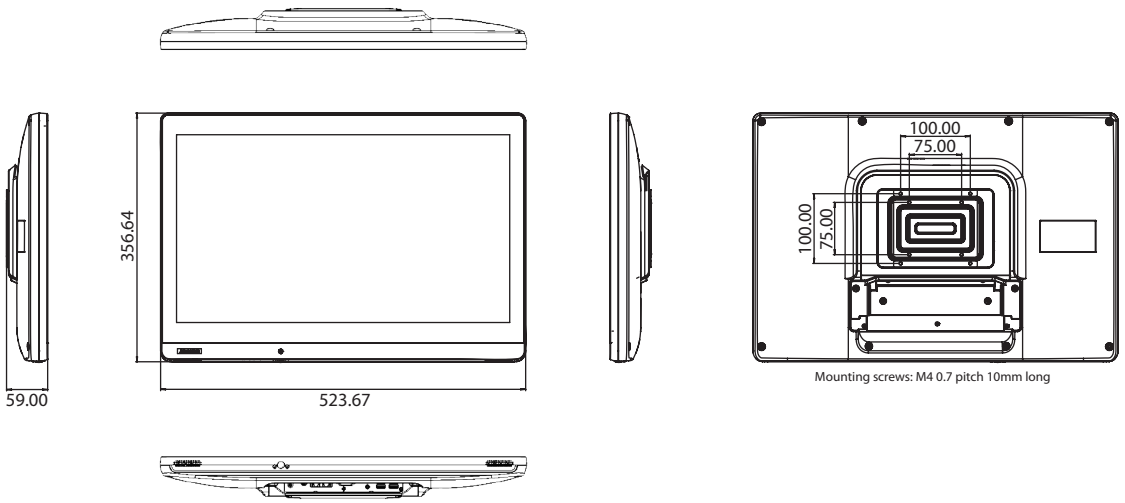
Specifications

System	Processor*	Intel® Core™ i5-8365UE Processor (6M Cache, up to 4.1 GHz) Intel® Celeron 4305UE Processor (2M Cache, 2.0 GHz)
	Memory (default)	Memory (default) 8GB DDR4 (supports up to 16GB DDR4 SOD) Operating System (optional) Windows 10 IoT Ent (64 bits only), Linux (supported upon request)
Storage	Primary Storage (optional)	NVME/SATA SSD (M.2 2280)
Display	Size	21.5 inch
	Max. Resolution	1920 x 1080
Touch	Type	10-point multi touch P-CAP (clear glass)
I/O	USB 3.1 Gen 1 (Type A)	4
	HDMI	1
	LAN non-isolation	2
	COM (RS232)	1
Expansion Slots	M.2 2230 E. Key (Optional)	1 (for Wi-Fi/Bluetooth module)
Other Functions	Speaker	2 x 2W
	Camera	1 x 5 megapixel (optional)
	TPM 1.2/2.0	2.0 (default via software)
Power Specification	Power Input	DC 12V, max. 84W
IP Rating	Front Panel	IP65
	System	IPX1 (IP54 optional)
Authentication Solution (Choose 1)	RFID Reader	Optional (choose either RFID or smart card reader)
	Smart Card Reader**	Optional (choose either RFID or smart card reader)
Certification	EMC & Safety	Medical CE IEC/EN60601-1-2;IEC/EN60601-1; UL/IEC62368-1, FCC(Part 15B), CCC
Physical Characteristics	Dimensions (W x H x D)	524 x 357 x 62 mm/20.63 x 14.06 x 2.44 in
	Weight	6.29 kg/13.86 lb
	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	10~95%, 40°C (Operating) 5~ 95%, 60°C (Storage)
	Shock Resistance	10G peak acceleration (11ms duration)
Warranty	System	2 years

All product specifications are subject to change without notice.
Last updated: 30-Mar-2022

Dimensions

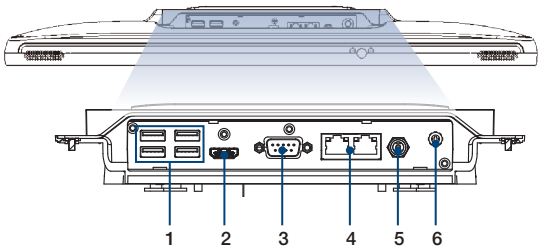
Unit: mm



Front Function Keys

Power Button

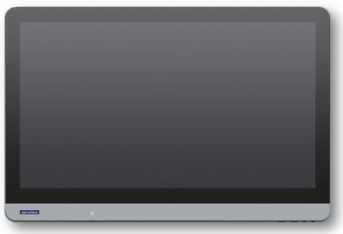
I/O Ports



1. 4 x USB3.1
2. HDMI
3. COM RS232 Port
4. 2 x Giggabit Ethernet
5. DC-in
6. Equipotential terminal pin

Multimodal

All-in-One PC



Touch Display (PAX-1)

Box PCBox PC (USM-120)

CTOS Service

Ordering Information

Grade	Part Number	Description	CPU	DRAM	Touch	SSD	Wi-Fi
ITE	POC-421-11B00D-CA	21.5" Core i5, 8G RAM, 256G NVME, Wi-Fi, IPX1, P-CAP touch	i5 8365UE	8GB	P-CAP	256G	Y
ITE	POC-421-11B000-CA	21.5" Core i5, barebone, IPX1, P-CAP touch	i5 8365UE	N	P-CAP	N	N
ITE	POC-421-11C000-CA	21.5" Celeron 4305UE, Barebone, IPX1,P-CAP touch	Celeron 4305UE	N	P-CAP	N	N
Medical	POC-421-11B00D-CE	21.5" Core i5, 8G RAM, 256G NVME, Wi-Fi, IPX1, P-CAP touch, MDR	i5 8365UE	8GB	P-CAP	256G	Y
Medical	POC-421-11B000-CE	21.5" Core i5, Barebone, IPX1, P-CAP Touch, MDR	i5 8365UE	N	P-CAP	N	N
Medical	POC-421-11C000-CE	21.5" Celeron 4305UE, barebone, IPX1, P-CAP touch, MDR	Celeron 4305UE	N	P-CAP	N	N

Wi-Fi, IP54, Box-PC and Touch Display Modules

Part Number	Description	Regions
POC-42X-WF2E	POC-4, 9260, Wi-Fi, BT5.0, antenna, RF-RED	Global
98R8POC4030	POC-424,IP54,waterproof suite kit package	Global
98R8POC4080	POC-421,IP54,waterproof suite kit package	Global
98R8POC4040	POC-4, 21.5" touch display module, w/Cover	Global
98R8POC4050	POC-4, 23.8" touch display module, w/Cover	Global
98R8POC4060	POC-4, box-PC i5, barebone	Exclude European regions
98R8POC4E60	POC-4, box-PC i5, barebone,medical-grade package	Global
98R8POC4070	POC-4, box-PC i5/8G/256G/Wi-Fi	Exclude European regions
98R8POC4E70	POC-4, box-PC i5/8G/256G/Wi-Fi,medical-grade package	Global

Memory

Part Number	Description
AQD-SD4U4GN24-SG	4G SO-DDR4-2400 512X8 1.2V SAM
AQD-SD4U8GN24-SE	8G SO-DDR4-2400 1GX8 1.2V SAM
AQD-SD4U8GN24-HE (Focus)	8G SO-DDR4-2400 1GX8 1.2V HYX
AQD-SD4U16N24-SE	16G SO-DDR4-2400 1GX8 1.2V SAM
AQD-SD4U16N24-HE	16G SO-DDR4-2400 1GX8 1.2V HYX

M.2 2280 SATAIII

Part Number	Description
96FD80-N128-TS	KIOXIA SSSTC SEMI-WT SSD 128GB 2280 SATA3 Tos 96 TLC -25°C ~ +85 °C
96FD80-N256-TS (Focus)	KIOXIA SSSTC SEMI-WT SSD 256GB 2280 SATA3 Tos 96 TLC -25°C ~ +85 °C
96FD80-N512-TS	KIOXIA SSSTC SEMI-WT SSD 512GB 2280 SATA3 Tos 96 TLC -25°C ~ +85 °C
96FD80-N1TB-TS	KIOXIA SSSTC SEMI-WT SSD 1TB 2280 SATA3 Tos 96 TLC -25°C ~ +85 °C

M.2 2280 SQF NVME

Part Number	Description
SQF-C8MV2-128GCEDC	SQF PCIe/NVMe M.2 2280 OPAL 720-C 128G 3D TLC BiCS4 (0 ~ 70 °C)
SQF-C8MV2-256GCEDC (Focus)	SQF PCIe/NVMe M.2 2280 OPAL 720-C 256G 3D TLC BiCS4 (0 ~ 70 °C)
SQF-C8MV4-512GCEDC	SQF PCIe/NVMe M.2 2280 OPAL 720-C 512G 3D TLC BiCS4 (0 ~ 70 °C)
SQF-C8MV4-1TCEDC	SQF PCIe/NVMe M.2 2280 OPAL 720-C 1T 3D TLC BiCS4 (0 ~ 70 °C)
SQF-C8MV4-2TCEDC	SQF PCIe/NVMe M.2 2280 OPAL 720-C 2T 3D TLC BiCS4 (0 ~ 70 °C)

DeviceOn / iService

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/iService is a next-generation unified device management solution based on the WISE-DeviceOn platform. Designed to enable centralized monitoring and remote management, DeviceOn/iService 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/iService 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

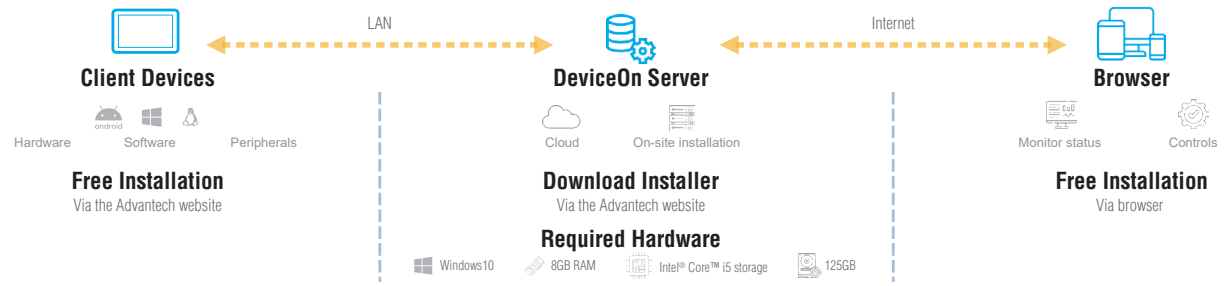
OTA updates
- System/software updates
- File repository management
- App store

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/iService Specifications

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