UTC-520

Features

- Low-power, fanless system design
- Build-in Intel Atom N97
- 21.5" monitor with 16:9 widescreen display
- IP65-rated front panel for water and dust resistance
- All-in-one aluminum extrusion design
- Supports both landscape and portrait screen orientations
- VESA 100 mm standard mounting holes for varied mounting demands
- Side groove design for integrating peripherals
- Optional 400 nits LCD panel
- Support DeviceOn/iService software for remote device management
- TPM support by Intel® Platform Trust Technology

DeviceOn/iService

Windows Embedded · UL · CCC · CE · FCC

Introduction

UTC-520 is an all-in-one computer with an Intel® Atom N97 processor, widescreen LCD touch panel, and side grove design for integrating optional peripherals. Designed for diverse self-service, content broadcasting, and interactive signage applications, UTC-520 systems can be deployed in a wide range of usage scenarios for enhancing enhance customer satisfaction, furthering brand equity, and maximizing business profits. Advantech's DeviceOn/iServiceis a next-generation unified device management solution based on the WISE-DeviceOnplatform. Moreover, Advantech DeviceOn/iService Software is a next-generation unified device management 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

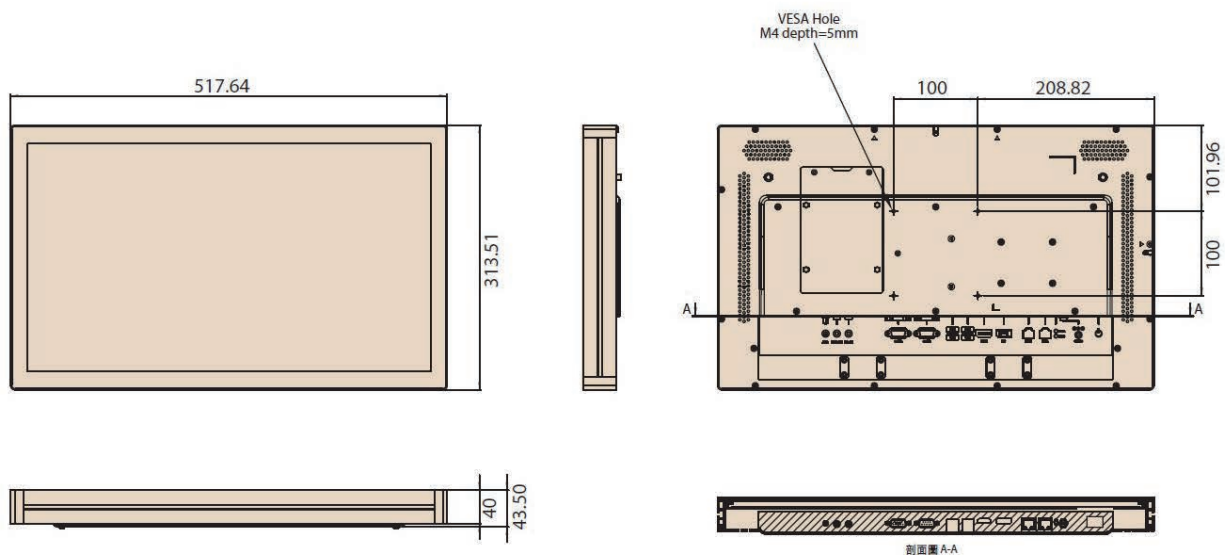| Model		UTC-520K
System	CPU	Intel N-series N97 (Default) Intel Core i3-N305
	Base Frequency	N97: 3.6 GHz (4 cores) i3: 3.8 GHz (8 cores)
	Memory	1 x 262 pin SO-DIMM DDR5-4800 up to 16GB
	SSD	1 x 2.5 internal SATA SSD bay
	Network (LAN)	2 x GbE LAN: Realtek RTL8111K
	I/O	2 x RJ-45, Realtek RTL8111K 1 x HDMI / 1 x DP 1 x Audio Line-out 1 x Mic-in 2 x USB 3.2 2 x USB 2.0 2 x RS-232/422/485, max. 1Mbps
	Stereo Speaker	2 x 3W
	Expansion	1 x E-Key 2230 (PCIe x1, USB2.0) 1 x B-Key 2280 (SATA x1) 1 x B-Key 3052 (USB3.2, USB 2.0 or *optional PCIe x1) w/ Nano-SIM
Mechanical	Mount Options	VESA 100 x 100 mm, M4*6L
	Dimensions (W x H x D)	517.6 x 313.51 x 43.5 mm
	Weight	8 kg (17.6 lb)
Board Features	Watchdog Timer	65536 intervals, 0 ~ 65535 sec
	TPM	fTPM support by Intel® Platform Trust Technology Discrete TPM2.0 (*optional)
Operating System		Windows 10/11 IoT Enterprise Android 14 Linux
Environmental	Operating Temperature	0 ~ 40 °C/32 ~ 104 °F with 0.7 m/s air flow
	Relative Humidity	95% @ 40 °C/104 °F, non-condensing
	Shock	Operating 10G peak acceleration (11ms duration), follow IEC 60068-2-27
	Vibration	Operating Random Vibration Test 5 ~ 500Hz, 1Grms @with SSD, follow IEC 60069-2-64
	EMC/Safety	CE (RED Compliance), EN 61000-6-2: 2005 /AC: 2005, FCC, UL, CB, CCC, BSMI
	Front Panel Protection	IP65 rated/NEMA4 compliant

Specifications (Cont.)

Power Supply	Input Voltage	12V
	Adapter	7 A (84W ITE adapter)
	Power Consumption	Typical 40W Max 50W
LCD Display	Size/Type	21.5" TFT LCD with LED backlight
	Max.Resolution	1920 x 1080
	Max. Color	16.7M
	Pixel Pitch (H x V)	248.25 x 248.25
	Brightness	250 nits (400 nits optional)
	Viewing Angle	178°/178°
Touchscreen (PE/RE)	Type	Projected capacitive, Single point Analog Resistive 5-wires touch
	Light Transmission	88% ± 2%, 80% ± 3%
	Controller	USB interface
DeviceOn/iService Remote Device Management	Operating System	Windows 10
	Common Controls (Reboot, Shutdown)	✓
	Remote desktop	✓ (VNC)
	Audio Controls	✓*
	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: DeviceOn/iService software must be downloaded from the Advantech website at https://www.advantech.com/search/?q=DeviceOn%2FiService&st=support&sst=Utility

Dimensions

Unit: mm

Ordering Information

Part Number	Description
UTC-520KP-ATB0E	21.5" 7H PCT T/S with Intel® Atom® N97, 8GB RAM, IT Adapter
UTC-520KR-ATB0E	21.5" Resi. T/S with Intel® Atom® N97, 8GB RAM, IT Adapter
UTC-520K-PE	21.5" 9H T/S with Intel® Atom® N97, IT Adapter
1702002600	Power Cord 3P UL/CSA(USA) 125V 10A 1.83M 180D
1702002605	Power Cord 2P FRANCE 10A/16A 220V 1.83M 90D
1700000596	Power cable, CCC, 3P, 10A, 250V, 183 cm (China)
1700018704	Power cable, BSI, 2P, 10A, 250V, 180 cm (UK)
1960069544N001	I/O cover for UTC-520 series
1930006198-01	Screws for IO Cover UTC-520(*4)

Peripherals for UTC-500 Series

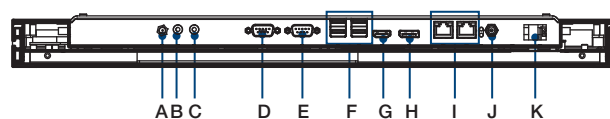| Part No.	Description
UTC-P01-A1E	5M Camera Module For UTC-5XX (USB connection)
UTC-P02-A0E	Magnet Strip Reader For UTC-5XX (USB connection)
UTC-P03-A1E	RFID Reader For UTC-5XX (USB connection)
UTC-P06-A2E	Smart Card Reader For UTC-5XX (USB connection)
UTC-P07-A4E	2D Barcode Module (Honeywell) for UTC-500 Series (USB connection)
UTC-P09-A0E	Fingerprint reader for UTC-5xx (USB connection)
UTC-P21-A3E	2D Barcode reader + RFID + SCR

Optional Accessories

Part No.	Description
96PD-00824	UTK-700 Desktop Stand (w/o Printer)
96PD-00825	UTK-700 Extension Tower (For 96PD-00824 only)
UTC-520-STAND1E	Desktop stand for UTC-515/520
UTC-T01-STANDE	Triangle shape floor stand
UTC-H01-STANDE	H-shaped floor stand
ARES-2424X-S170201	Table Stand,100x100/75x75
ARES-12250-L101000	Wall Mount, 75/100mm

UTC-520 WiFi Ordering Information

Part No.	Description
UTC-WIFI-A5E	AIW-163BR 802.11ax with BT5.2, PCIe-USB, Realtek 8852BE, M.2 2230
UTC-WIFI-A6E	EWM-W179,802.11ax/ac/b/g/n, 2T2R, BT5.2, M.2

Fully Integrated I/O

A. Antenna Port
B. Line-out
C. Mic-in
D. COM2
E. COM1
F. 2 x USB 3.2, 2 x USB 2.0

G. HDMI
H. DP
I. LAN Ports x 2
J. DC input
K. Power Switch

DeviceOn/iService

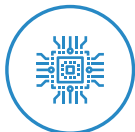**Unified Remote Device Management Software**

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

Client Devices — LAN — **DeviceOn Server** — Internet — **Browser**

Client Devices	DeviceOn Server	Browser
Hardware · Software · Peripherals	Cloud · On-site installation	Monitor status · Controls
Free Installation Via the Advantech website	**Download Installer** Via the Advantech website	**Free Installation** Via browser

Required Hardware

Windows10 | 8GB RAM | Intel® Core™ i5 storage | 125GB