# UTC-520

## 21.5" Ubiquitous Touch Computer
## UTC-520D with Intel® Celeron J1900
## UTC-520G with Intel® Pentium® N4200

DeviceOn/iService

## Features

- Low power and fanless system design
- Build-in Intel® Celeron J1900 (UTC-520D default)
- Built-in Intel® Pentium N4200 (UTC-520G default)
- 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 flexible peripheral installation
- White RAL9016 available for UTC-520D
- Optional 400 nit LCD panel
- Support DeviceOn/iService software for remote device management

## Introduction

UTC-520 features an all-in-one computing system equipped with wide format, touch based LCD panel. It is easy to integrate key peripherals and display systems for diversified self-service and interactive signage deploy in different application areas. The systems deliver updated information with well-designed interactive interfaces, fully ensure relevant content and targeted promotions are delivered. UTC series touch panel computers are the best investments to enhance user satisfaction, further brand equity, and maximize 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-520D | UTC-520G |
|---|---|---|---|
| Processor System | CPU | Intel® Celeron® J1900 (Default) | Intel® Pentium® N4200 (Default) |
| | Base Frequency | 2 GHz (Quad-Core) | 1.1 GHz (Quad-Core) |
| | Cache | L2 Cache 2MB | L2 Cache 2MB |
| | Memory | 1 x SO-DIMM DDR3L 1333 MHz up to 8 GB | 1 x 204 pin SO-DIMM DDR3L 1867 MHz up to 8GB |
| | HDD | 1 x 2.5 internal SATA HDD bay | 1 x 2.5 internal SATA HDD bay |
| | Network (LAN) | 2 x Gigabit Ethernet ports (Supports Wake on LAN) | 2 x Gigabit Ethernet Ports, Intel I210AT (supports Wake on LAN) |
| | I/O ports | 2 x RS-232 COM (RS-422/485)*<br>3 x USB 2.0 / 1 x USB 3.0<br>2 x Gigabit Ethernet (RJ-45)<br>1 x VGA & HDMI<br>Audio Line-out x 1, Mic-in x 1 | 2 x RS-232 COM (RS-422/485)*<br>2 x USB2.0/ 2 x USB3.0<br>2 x Gigabit Ethernet (RJ-45)<br>1 x VGA<br>1 x HDMI<br>Audio Line-out x 1, Mic-in x 1 |
| | Stereo Speaker | 2 x 3W | 2 x 3W |
| | Bus expansion | Full-size MiniPCIe / mSATA | 1 x Full-size MiniPCIe / mSATA<br>1 x M.2 E-key 2230 |
| | Mounting | VESA 100 x 100 mm | VESA 100 x 100 mm |
| | Dimensions (W x H x D) | 517.64 x 313.51 x 43.50 (mm) | 517.6 x 313.5 x 43.5 mm |
| | Weight | 8 kg (17.6 lb) | 8 kg (17.6 lb) |
| OS Support | | Win 10 IoT Enterprise<br>Android 6.0<br>Linux Ubuntu 14.04 | Win 10 IoT Enterprise<br>Android 10<br>Linux Ubuntu 20.04 |
| Environmental Specifications | Operating Temperature | 0 ~ 40° C (32 ~ 104° F) | 0 ~ 40° C (32 ~ 104° F) |
| | Relative Humidity | 10 ~ 95% @ 40° C non-condensing | 10 ~ 95% @ 40° C non-condensing |
| | Vibration | Operating 10G peak acceleration (11ms duration), follow IEC 60068-2-27 | Operating 10G peak acceleration (11ms duration), follow IEC 60068-2-27 |
| | Shock | Operating Random Vibration Test 5 ~ 500Hz, 1Grms @ with HDD; 2Grms @with SSD, follow IEC 60069-2-64 | Operating Random Vibration Test 5 ~ 500Hz, 1Grms @with HDD; 2Grms @with SSD, follow IEC 60069-2-64 |
| | EMC/ Safety | CE (No RED certification) (EN 61000-6-2: 2005 / AC: 2005), FCC, CB, UL, CCC, BSMI | CE (RED Compliance), EN 61000-6-2: 2005 /AC: 2005, FCC, UL, CB, CCC, BSMI |
| | Front Panel Protection | IP65/ NEMA4 Compliant | IP65/ NEMA4 Compliant |
| Power Supply | Input Voltage | 12 $V_{DC}$ | 12$V_{DC}$ |
| | Adapter | 12 V/7 A (84 W ITE Adapter) | 12V/7A (84W ITE Adapter) |
| | Power consumption | Typical 45W<br>Max. 65W | Typical 35W<br>Max 40W |





All product specifications are subject to change without notice, * identify as optional function

Last updated: 29-Dec-2022

## Specifications (Cont.)

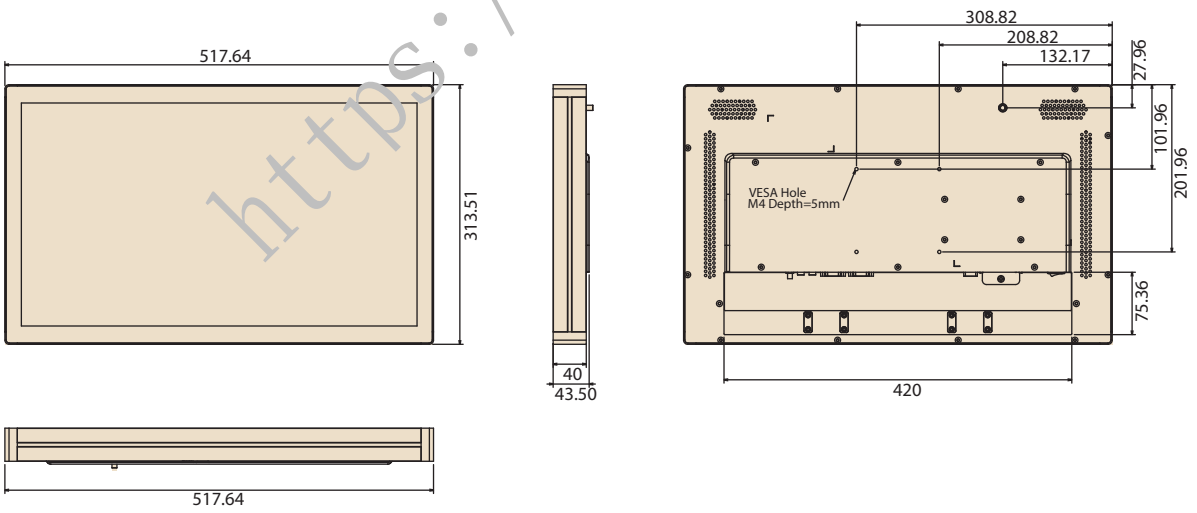
| | | | |
|---|---|---|---|
| LCD Display | Size/Type | 21.5" TFT LCD with LED backlight | 21.5" TFT LCD with LED backlight |
| | Max.Resolution | 1920 x 1080 | 1920 x 1080 |
| | Max. Color | 16.7M | 16.7M |
| | Pixel Pitch (um) | 248.25 (H) x 248.25 (V) | 248.25 x 248.25 |
| | Brightness (cd/m$^2$) | 250 (Optional 400) | 250 nits (400 nits optional) |
| | View Angle | 178°/178° | 178°/178° |
| Touch Screen Option (PE/RE/GE) | Type | Projected capacitive, Single point Analog Resistive 5-wires touch | Projected capacitive, Single point Analog Resistive 5-wires touch |
| | Light Transmission | 90% ± 2% / 80% ± 5% / 90% | 88% ± 2%, 80% ± 3% |
| | Controller | USB Interface / USB Interface / - | 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 No. | Description |
|---|---|
| UTC-520D-PE | 21.5" 9H PCT.T/S with Intel® Bay trail J1900, 4GB RAM, IT Adapter |
| UTC-520DP-ATB0E | 21.5" 7H PCT.T/S with Intel® Bay trail J1900, 4GB RAM, IT Adapter |
| UTC-520D-RE | 21.5" Resi. T/S with Intel® Bay trail J1900, 4GB RAM, IT Adapter |
| UTC-520G-PE | 21.5" 9H PCT.T/S with Intel® Pentium® N4200, 4GB RAM, IT Adapter |
| UTC-520GP-ATB0E | 21.5" 7H PCT.T/S with Intel® Pentium® N4200, 4GB RAM, IT Adapter |
| UTC-520GR-ATB0E | 21.5" Resi. T/S with Intel® Pentium® N4200, 4GB RAM, IT Adapter |

### 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-A0E | RFID Reader For UTC-5XX (USB connection) |
| UTC-P06-A0E | 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 |

### Installation Accessory

| 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-520D WiFi Ordering Information

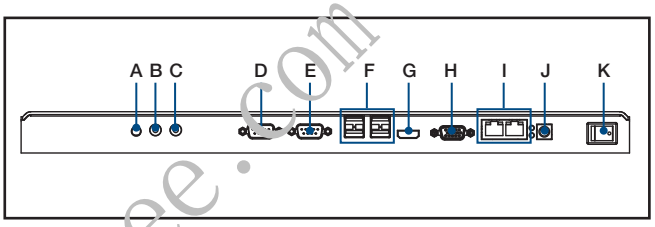
| Part No. | Description |
|---|---|
| UTC-WIFI-A1E | EWM-W168H01E, 802.11ac/a/b/g/n, 2T2R, BT4.2, HMC |
| UTC-WIFI-A0E | EWM-W135H01E, 802.11 a/b/g/n,AR9382,2T2R, HMC |
| UTC-WIFI-A2E | EWM-W189H02E 802.11ac/a/b/g/n, 2T2R, BT4.2, HMC |
| UTC-WIFI-A3E | EWM-W193H01E, 802.11ac/a/b/g/n, 2T2R, BT5.0, HMC |

### UTC-520G WiFi Ordering Information

| Part No. | Description |
|---|---|
| UTC-WIFI-A4E | EWM-W163M201E 802.11ac/a/b/g/n 2T2R WIFI with BT 4.1 QCA6174A, M.2 2230 |
| UTC-WIFI-A5E | AIW-163BR 802.11ax with BT5.2, PCIe-USB, Realtek 8852BE, M.2 2230 |

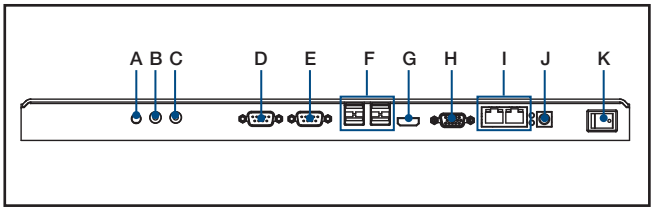
# Fully- Integrated I/O

### UTC-520D




A. Antenna Port
B. Line-out
C. Mic-in
D. COM2
E. COM1
F. USB 3.0 x1, USB 2.0 x 3
G. HDMI
H. VGA
I. LAN Ports x 2
J. DC Input
K. Power switch

### UTC-520G




A. Antenna Port
B. Line-out
C. Mic-in
D. COM2
E. COM1
F. USB 3.0 x 2, USB 2.0 x 2
G. HDMI
H. VGA
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