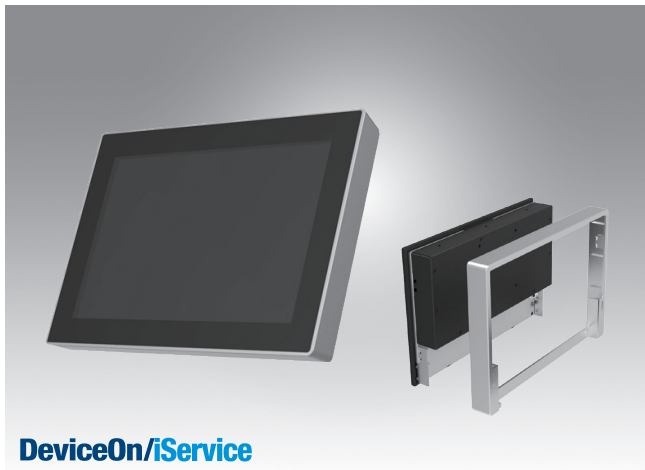


# UTC-510

**10.1" Ubiquitous Touch Computer**  
UTC-510D with Intel® Celeron® J1900  
UTC-510G with Intel® Pentium® N4200  
UTC-510J with Intel® Celeron® J6412



## Features

- Low Power & Fanless design
- Built-in Intel® Celeron® J1900 (UTC-510D)
- Built in Intel® Pentium® N4200 (UTC-510G)
- Built-in Intel® Celeron® J6412 (UTC-510J)
- Providing Natural Viewing Experience with 16:10 10.1" Display
- Landscape & Portrait screen mode support by different applications
- VESA 75 mm standard mounting holes for varied mounting demands
- Detachable plastic frame design for panel mount applications
- Support DeviceOn/iService software for remote device management



## Introduction

UTC-510 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.

Moreover, Advantech DeviceOn/iService Software 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

| Processor System             | CPU                    | Intel® Celeron® J1900 (UTC-510D)                                                                                                                                                | Intel® Pentium® N4200 (UTC-510G)                                                                                                                                  | Intel® Celeron® J6412 (UTC-510J)                                                                                            |
|------------------------------|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
|                              | Base Frequency         | 2 GHz (Quad-Core)                                                                                                                                                               | 1.10 GHz (Quad-Core)                                                                                                                                              | 2.0GHz                                                                                                                      |
|                              | Cache                  | L2 Cache 2MB                                                                                                                                                                    | L2 Cache 2MB                                                                                                                                                      | 1.5 MB L2 Cache                                                                                                             |
|                              | Memory                 | 1 x 204 pin SO-DIMM DDR3L<br>1333 MHz up to 8 GB                                                                                                                                | 1 x 204 pin SO-DIMM DDR3L 1866MHz up to 8 GB                                                                                                                      | 1 x DDR4 3200MHz up to 32G                                                                                                  |
|                              | HDD                    | 1 x 2.5" internal SATA HDD bay                                                                                                                                                  |                                                                                                                                                                   | N/A                                                                                                                         |
|                              | Network (LAN)          | 1 x Gigabit Ethernet ports (Supports Wake on LAN)                                                                                                                               |                                                                                                                                                                   | 2 x Gigabit Ethernet ports                                                                                                  |
|                              | I/O ports              | 2 x RS-232 COM (COM1 RS-422/485 supported)*<br>1 x USB 2.0 / 1 x USB 3.0 / 2 x USB 2.0 (optional)*<br>1 x Gigabit Ethernet (RJ-45)<br>1 x VGA<br>Audio Line-out x 1, Mic-in x 1 | 2 x RS-232 COM (COM1 RS-422/485 supported)*<br>2 x USB 3.0 / 2 x USB 2.0 (optional)*<br>1 x Gigabit Ethernet (RJ-45)<br>1 x VGA<br>Audio Line-out x 1, Mic-in x 1 | 4 x USB3.2 Gen2 (10Gbps)<br>2 x GbE (RJ-45)<br>1 x HDMI<br>2 x RS-232 COM (RS-422/485)*<br>1 x Audio Line-out<br>1 x Mic-in |
|                              | Stereo Speaker         | 2 W x 1                                                                                                                                                                         |                                                                                                                                                                   | 2 W x 2                                                                                                                     |
|                              | Bus expansion          | 1 Half size MiniPCIe<br>1 Half size mSATA                                                                                                                                       | 1 Full size MiniPCIe<br>1 Half size mSATA                                                                                                                         | 1x E-Key for wireless module (Type: 2230)<br>1x M-Key support SATA M.2 2242 module                                          |
|                              | Mounting               | VESA 75 x 75 mm                                                                                                                                                                 |                                                                                                                                                                   |                                                                                                                             |
| OS Support                   | Dimensions (W x H x D) | 265.40 x 182.40 x 39.55 mm                                                                                                                                                      |                                                                                                                                                                   |                                                                                                                             |
|                              | Weight                 | 1.80 kg (3.97 lbs)                                                                                                                                                              |                                                                                                                                                                   |                                                                                                                             |
| Front Panel Protection       | OS Support             | WE8S 32bit<br>Windows Embedded 8.1 Industry Pro 64bit<br>Win 10 IoT Enterprise 64bit<br>Linux Ubuntu 18.04<br>Android 6.0                                                       | Window 10 IoT Enterprise<br>Linux Ubuntu 20.04<br>Android 12                                                                                                      | Win 10 IoT Enterprise, Win 11 IoT Enterprise<br>Android 14<br>Ubuntu 22.04                                                  |
|                              | Front Panel Protection | IP 65 Compliant                                                                                                                                                                 |                                                                                                                                                                   |                                                                                                                             |
| Environmental Specifications | Operating Temperature  | 0 ~ 35° C (32 ~ 95° F)                                                                                                                                                          | 0 ~ 45° C (32 ~ 113° F)                                                                                                                                           | 0 ~ 40° C (32 ~ 104° F)                                                                                                     |
|                              | Relative Humidity      | 95% @ 40° C non-condensing                                                                                                                                                      |                                                                                                                                                                   |                                                                                                                             |
|                              | Vibration              | 1Grms                                                                                                                                                                           |                                                                                                                                                                   |                                                                                                                             |
|                              | Shock                  | 10G peak acceleration (11 msec. duration)                                                                                                                                       |                                                                                                                                                                   |                                                                                                                             |
|                              | Certification          | CE (No RED certification), FCC, CB, UL, CCC, BSMI                                                                                                                               |                                                                                                                                                                   |                                                                                                                             |
| Power Supply                 | Input Rating           | 12 V/3 A (36W ITE Adapter)                                                                                                                                                      |                                                                                                                                                                   |                                                                                                                             |
|                              | Power consumption      | Typical 10W<br>Max. 20W                                                                                                                                                         |                                                                                                                                                                   | Typical 25W<br>Max. 35W                                                                                                     |

## Specifications (Cont.)

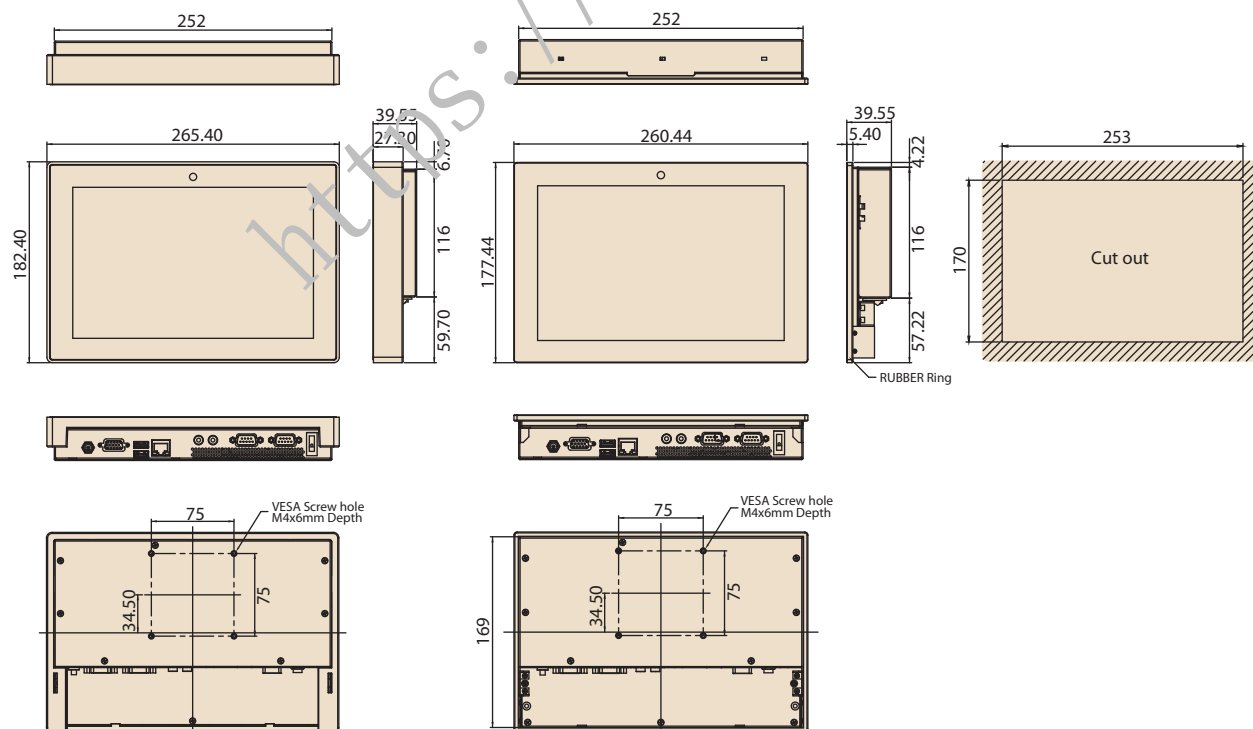
|                                            |                                    |                                   |
|--------------------------------------------|------------------------------------|-----------------------------------|
| LCD Display                                | Size/Type                          | 10.1" TFT LCD with LED backlight  |
|                                            | Max. Resolution                    | 1280 x 800                        |
|                                            | Max. Color                         | 16.7M                             |
|                                            | Pixel Pitch (um)                   | 169.5 x 169.5                     |
|                                            | Brightness (cd/m <sup>2</sup> )    | 350                               |
|                                            | View Angle                         | 170 / 170                         |
|                                            | Camera                             | 5 Mega Pixel (Optional)           |
| Touch Screen Option (PE/GE)                | Type                               | Projected Capacitive. Glass Panel |
|                                            | Light Transmission                 | 80% ± 5% / 90%                    |
|                                            | 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                | ✓*                                |
|                                            | Peripherals Watchlist              | ✓*                                |

\*Dependant on device model

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-510DP-ATB1E | 10.1" Intel Celeron J1900 Based fanless UTC with PCT.T/S 4GB RAM      |
| UTC-510GP-ATB1E | 10.1" Intel Pentium N4200 Based fanless UTC with PCT.T/S 4GB RAM      |
| UTC-510GP-ATN1E | 10.1" Intel Pentium N4200 Based fanless UTC with PCT.T/S 4GB RAM, Ant |
| UTC-510JP-ATB0E | 10.1" Intel Celeron J6412 Based fanless UTC with PCT.T/S 4GB RAM      |
| 1700001524      | Power Cord 3P UL 10A 125V 180cm                                       |
| 170203180A      | Power Cord 3P UK 2.5A/3A 250V 1.83M                                   |
| 170203183C      | Power Cord 3P Europe (WS-010+WS-083)183cm                             |
| 1700021374-01   | Power Cord 3P CCC 2.5A 250V 250cm (IEC60320-C5)                       |
| 1960073820N102  | IO Cover UTC-510D/G                                                   |
| 1960117660N001  | IO Cover UTC-510J/K                                                   |
| 1931031500      | Screws for IO Cover UTC-510(*2)                                       |

### Peripherals for UTC-510 series

| Part No.      | Description                                                       |
|---------------|-------------------------------------------------------------------|
| UTC-510P-B03E | 2D Barcode Scanner - Honeywell N4680 For UTC-510 (USB connection) |
| UTC-510P-F01E | Finger Print Reader For UTC-510 (USB connection)                  |
| UTC-510P-R01E | RFID Reader For UTC-510 (USB connection)                          |
| UTC-510P-M01E | Magnet Strip Reader For UTC-510 (USB connection)                  |
| UTC-510P-S01E | Smart Card Reader For UTC-510 (USB connection)                    |

### Installation Accessory

| Part No.           | Description                      |
|--------------------|----------------------------------|
| UTC-WALL-MOUNT5E   | UTC-510 VESA mount (75 x 75)     |
| UTC-510-STAND0E    | UTC-510 desktop stand            |
| 1960074091N000     | UTC-510 Panel Mount Clamper (*4) |
| 1930005598         | UTC-510 Panel Mount Screw (*4)   |
| ARES-2414X-S150201 | Table Stand, 75x75mm             |

### WiFi ordering information for UTC-510 series

#### UTC-510D/G

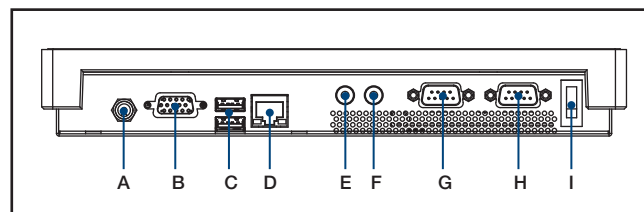
| Part No.      | Description                                         |
|---------------|-----------------------------------------------------|
| UTC-510PW-A0E | 510(PoE), EWM-W172, 802.11ac/a/b/g/n, 2T2R,BT4.2HMC |
| UTC-510PW-A1E | 510(PoE), EWM-W193, 802.11ac/a/b/g/n, 2T2R,BT5.0HMC |
| UTC-510PW-A2E | 510(PoE), EWM-W189, 802.11ac/a/b/g/n, 2T2R,BT4.2HMC |

#### UTC-510J/K

| Part No.     | Description                                           |
|--------------|-------------------------------------------------------|
| UTC-510W-A3E | AIW-163BR, 802.11a/b/g/n/ac/ax, 2T2R, BT5.2, M.2 2230 |
| UTC-510W-A4E | EWM-W179, 802.11a/b/g/n/ac/ax, 2T2R, BT5.2, M.2       |

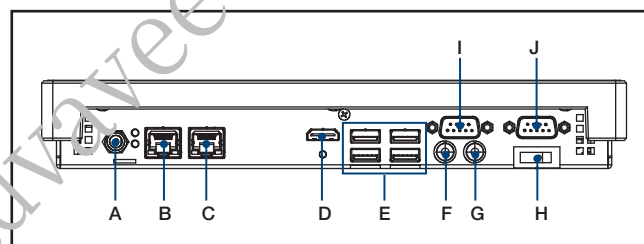
## Fully- Integrated I/O

#### UTC-510D/G



- A. DC Power jack
- B. VGA
- C. USB 3.0 X 1, USB 2.0 x 1 (for UTC-510D)  
USB 3.0 X 2 (for UTC-510G)
- D. LAN Ports
- E. MIC-in
- F. Line-out
- G. COM 2
- H. COM 1
- I. Power switch

#### UTC-510J



- A. DC Power Jack
- B. LAN 1
- C. LAN 2
- D. HDMI
- E. USB3.2 x 4
- F. Mic-in
- G. Line-out
- H. Power Switch
- I. COM 2
- J. COM 1

# DeviceOn/iService

## Unified Remote Device Management Software



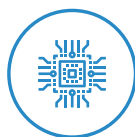
### Features

- 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-Device On 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

