

# **DT301A**

## **BASIC OPERATION GUIDE**

### **ENGLISH**



### **INTRODUCTION**

Thank you for acquiring the latest addition to DT Research's line of tablets — the DT301A. Featuring a slim yet robust enclosure, the DT301A with 10.1" capacitive touch display is powered by the Intel® processor, offering optimal combinations of performance and power savings. The DT301A is available with Microsoft operating system. The operating system features web browser, client/ server computing software, media player, accessories, and applications support.

### **PACKAGE CONTENTS**

- One DT301A with Battery Pack and Handstrap
- Capacitive Touch Stylus and Lanyard
- AC-DC Power Adapter with Power Cord
- Basic Operation Guide

DT301A:



Input/ Output Ports Button Functions

- A

Headphone Jack
- B

USB 3.0 Port
- C

DC Power Input
- D

GNSS module
- E

Back Camera (optional)
- F

Long Range Tansmitter module

| BUTTON | ACTION                                                                                                                                                   |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1      | power button                                                                                                                                             |
| 2      | programmable button                                                                                                                                      |
| 3      | Battery Latch <ul style="list-style-type: none"><li>• Push the switch to unlock the latch, than slide the latch to left to remove the battery.</li></ul> |
|        |                                                                                                                                                          |
|        |                                                                                                                                                          |

## Precautions

- Always exercise care when operating and handling the DT301A.
- Do NOT apply excessive pressure to the display screen.
- Avoid prolonged exposure of the display panel to any strong heat source. Wherever possible, the DT301A should face away from direct light to reduce glare.
- If the AC-DC power adapter is used to recharge or power the tablet, do NOT use any AC-DC adapter other than the one provided or acquired from the manufacturer or its partners.
- In the unlikely event that smoke, abnormal noise, or strange odor is present, immediately power off the DT301A and disconnect all power sources. Report the problem to your device provider immediately.
- Never attempt to disassemble the DT301A, as this will void the warranty.

## Basic Features

The DT301A wireless tablet integrates a bright display, one USB port, and embedded networking elements such as wireless LAN and Bluetooth, 4G LTE and Long Range Transmitter module. The DT301A is complemented by a suite of accessories, including battery expansion, charging cradles, and battery charger kit, for a comprehensive user experience.

A DT301A typically integrates an 802.11ac wireless LAN (WLAN) adapter that may connect to other wireless devices or access points. If your DT301A does not come with such a network adapter, please consult your device provider to establish the desired network connectivity.

## OPERATION

### Internal Battery

Warning 

The Internal battery pack should only be replaced by an authorized DT Research service representative. Please contact your product and/or service provider for internal battery replacement service.

### Powering ON and OFF

To activate the DT301A, push and quickly release the Power Button. The display will come on in a few seconds. To put the DT301A in Standby mode, push and quickly release the Power Button. To turn the DT301A off for extended storage, power off safely using any software function that “shuts down computer” provided in the software operating system.

**NOTE:**

The battery packs shipped with your tablet may be low in power—please use the AC-DC adapter with the DT301A when setting up for the first time to fully charge the internal battery pack. You may charge the external battery pack with it attached to the DT301A, or with the optional external battery charger kit.

**NOTE:**

When the battery pack(s) is (are) charging, the blue-colored Battery LED should blink slowly. If plugging in the AC-DC adapter does not trigger this blinking activity and the LED stays dark, the battery pack(s) may have been drained substantially. Try unplugging/ replugging the AC-DC adapter to the DT301A a few times to activate the charging process.

**NOTE:**

To conserve power, use (push and quick release) the Power Button to put in “Standby” mode while not in use. Pushing briefly on the same button will wake up the system within seconds.

**NOTE:**

Avoid using the Power Button (“hold 4+ seconds” feature) to turn off the tablet—this form of hardware shutdown is intended to be a means of recovery from lockups, and not as normal operation.

## Start Up

If the power up (from Standby or otherwise) is successful, the appropriate interface will be displayed after a launch sequence of several seconds. The wireless LAN connection may take 10-15 seconds to be established.

## Configuring the Mobile Tablet

The DT301A may be configured using the utilities and methods dictated by the software operating system. The DT301A should be configurable for various properties such as user profiles, network features, and several system elements.

## Wireless Networking

### Wireless LAN

The DT301A is often delivered with an embedded (user-inaccessible) 802.11ac WLAN adapter equipped with a hidden custom antenna.

- Through the support of typical WLAN adapters, the DT301A should be able to detect all 802.11 access points in the vicinity for you to select the access point of your choice for connection.
- The SSID and WEP/WPA/WPA2 (if enabled) parameters on the DT301A and the access points have to match. The SSID is case-sensitive and it is recommended that you enable WEP/WPA/WPA2 encryption (or advanced alternatives) for secure access.
- When WEP/WPA/WPA2 is enabled, you may need to consult your network administrator or your networking equipment literature to properly configure associated settings such as Authentication mode, etc.
- Refer to the access point operating manuals for setting up the 802.11 access points.

## Bluetooth

The Bluetooth configuration application is enabled from the System Tray or from the Windows Mobility Center. Follow the instructions and options provided within the application to configure and invoke Bluetooth connectivity with the corresponding peripherals.

## Long Range Tansmitter

Long Range Tansmitter, the CIRRONET WIT2410, provides a transmission range of approximately to 100 meters, supporting point-to-point or multipoint applications. It ensures maximum resistance to noise and multipath fading and robustness in the presence of interfering signals, while operation in the 2.4GHz ISM band allows license-free use and worldwide compliance. A simple serial interface supports asynchronous data up to 230400 bps. An on-board 3 KB buffer and an error-correcting over-the-air protocol provide smooth data flow and simplify the task of integration with existing applications.

## USING THE MOBILE TABLET

### Peripherals Support

Through its USB port, the DT301A supports a wide range of USB-based peripherals. These peripherals are applicable for software installation, applications storage, data storage, and system software recovery and updates.

### Remote Management

Depending on software configuration, the DT301A can be centrally managed for asset monitoring and for software control. Please consult your device provider.

### For More Support

Users can download the Tablet Modules Basic Operation Guides from the DT Research website.

**DT301A installation**

The major application of DT301A is for Architecture measurement that is utilized the Long Range Tansmitter. The DT301A installation and operation, please see the below photos, is erected on the tripod.



The distance is exceed 20cm between DT301A mobile tablet and the body of operator that ensure the precision and accuracy of measurement.

## Specifications:

| Item                                | DT301A                                                                                               |
|-------------------------------------|------------------------------------------------------------------------------------------------------|
| <b>System</b>                       |                                                                                                      |
| CPU                                 | Intel® 6 <sup>th</sup> Generation Core™ i7, 2.6GHz                                                   |
| RAM                                 | 8GB                                                                                                  |
| Storage                             | 128GB flash                                                                                          |
| Operating System                    | Microsoft® Windows®7 Professional or Windows®10 IoT Enterprise                                       |
| Display                             | 10.1" LED-backlight screen with multi touch capacitive touch                                         |
| Display Resolution                  | 1920 x 1200                                                                                          |
| Network Interface                   | Wi-Fi 802.11ac, 2.4GHz/ 5GHz dual band; Bluetooth 4.1 LE                                             |
| Mobile Broadband                    | provides LTE, WCDMA, CDMA                                                                            |
| GNSS Module                         | U-blox M8 GNSS module with concurrent reception of GPS and GLONASS.                                  |
| Long Range Tansmitter               | 2.4GHz to 2.483GHz, FCC Part 15.247 and ETSI 300328 rules, license free                              |
| Control Switch and Buttons          | 1 power button, 1 Wifi switch and 3 programmable buttons                                             |
| Indicator                           | 1 power/ battery status LED                                                                          |
| Microphone                          | Built-in microphone with DSP for video conference call                                               |
| Speaker                             | Built-in speaker                                                                                     |
| Camera(optional)                    | 5 megapixel back camera with LED flash, auto focus, white balance, gain control and exposure control |
| <b>I/O Ports</b>                    |                                                                                                      |
| USB port                            | 1 USB3.0 port                                                                                        |
| Audio Jack                          | 1 (3.5mm)                                                                                            |
| DC-in                               | 1                                                                                                    |
| <b>Mechanical and Environmental</b> |                                                                                                      |
| AC/DC Adapter                       | <b>Input:</b> 100 – 240V AC; <b>Output:</b> 19V DC, 3.42A                                            |
| Battery Pack                        | Hot Swappable battery, 11.4Vdc, 5400mAh,61.56Wh                                                      |
| Backup Battery                      | 3.7Vdc,240mAh                                                                                        |
| Enclosure                           | ABS + PC plastics and magnesium-aluminum alloy                                                       |
| Stylus                              | Capacitive touch stylus or digitizer digital pen                                                     |
| Protective Grips                    | Rubber bumpers on each corner for handling protection                                                |
| Dimensions (H x W x D)              | 7.5 x 10.98 x 0.86 in/ 190 x 279 x 21.9 mm                                                           |
| Weight                              | 2.86 lbs/ 1.3 kg                                                                                     |
| Regulatory                          | FCC Class B, CE, RoHS compliant                                                                      |
| Operating Temperature               | <b>Operation:</b> 0°C ~ 45°C; <b>Storage:</b> -20°C ~ 60°C                                           |
| Humidity                            | 0% – 90% non-condensing                                                                              |



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## **FCC Warning:**

●This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

●This device has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiated radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

## **RF Exposure Information (SAR)**

This device meets the government's requirements for exposure to radio waves.

This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government.

The exposure standard for wireless devices employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6W/kg. \*Tests for SAR are conducted using standard operating positions accepted by the FCC with the device transmitting at its highest certified power level in all tested frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR level of the device while operating can be well below the maximum value. This is because the device is designed to operate at multiple power levels so as to use only the power required to reach the network. In general, the closer you are to a wireless base station antenna, the lower the power output.

This device was tested according to FCC SAR procedure, and was tested directly contacted with the Body. While there may be differences between the SAR levels of various devices and at various positions, they all meet the government requirement.

The FCC has granted an Equipment Authorization for this device with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines.

When the device installed for distance measurement, please make sure the device be installed and operated with minimum distance 20cm between the radiator &you body.

SAR information on this device is on file with the FCC and can be found under the Display Grant section of [www.fcc.gov/eot/ea/fccid](http://www.fcc.gov/eot/ea/fccid) after searching on FCC ID:YE3801I.

## Canada, ISED Notices

This device complies with ISED's licence-exempt RSSs. Operation is subject to the following two conditions:

- (1) This device may not cause interference; and
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

## Canada, avis d'ISED

Le présent appareil est conforme aux CNR d'ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Users should also be advised that high-power radars are allocated as primary users (i.e. priority users) of the bands 5250-5350 MHz and 5470-5725 MHz and that these radars could cause interference and/or damage to LE-LAN devices. 5GHz Wifi Band 1 should indoor use only.

Devraient également être informés les utilisateurs que les radars à haute puissance sont désignés comme utilisateurs principaux (c.-à-d. utilisateurs prioritaires) des bandes 5250-5350 MHz et 5470-5725 MHz et que ces radars pourraient provoquer des interférences et / ou endommager les appareils LE-LAN. Le Wifi 5 GHz ne doit être utilisé qu'à l'intérieur.

## Radio Frequency (RF) Exposure Information

The radiated output power of the Wireless Device is below the ISED radio frequency exposure limits. The Wireless Device should be used in such a manner such that the potential for human contact during normal operation is minimized.

This device has been evaluated for and shown compliant with the ISED Specific Absorption Rate ("SAR") limits when operated in portable exposure conditions.

When the device is installed for distance measurement, please make sure the device be installed and operated with minimum distance 20cm between the radiator & your body.

## Informations concernant l'exposition aux fréquences radio (RF)

La puissance de sortie émise par l'appareil de sans fil est inférieure à la limite d'exposition aux fréquences radio d'ISED. Utilisez l'appareil de sans fil de façon à minimiser les contacts humains lors du fonctionnement normal.

Ce dispositif a été évalué pour et démontré conforme à la Taux ISED d'absorption spécifique ("SAR") des limites lorsqu'il est utilisé dans des conditions d'exposition portatifs.

Lorsque l'appareil est installé pour la mesure de distance, veuillez vous assurer que l'appareil est installé et utilisé avec une distance minimale de 20 cm entre le radiateur et votre corps.