mTray T8 User Manual Rev. 2.0

Model: mTray T8

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FCC statement

FCC NOTICE:

To comply with FCC part 15 rules in the United States, the system must be professionally installed to ensure compliance with the Part 15 certification. It is the responsibility of the operator and professional installer to ensure that only certified systems are deployed in the United States.

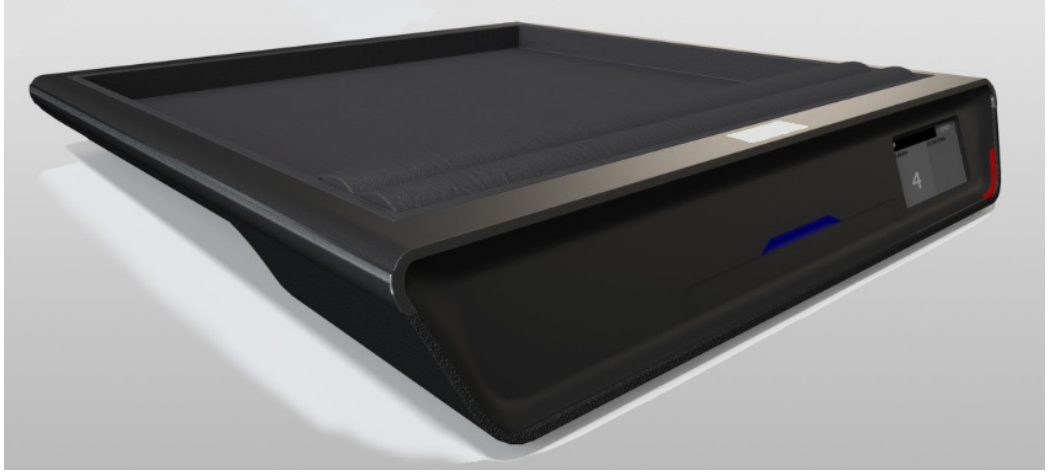
The use of the system in any other combination (such as co-located antennas transmitting the same information) is expressly forbidden.

CE statement

CE NOTICE:

The CE Mark applies to products regulated by certain European health, safety and environmental protection legislation. The CE Mark is obligatory for products it applies to: the manufacturer affixes the marking in order to be allowed to sell his product in the European market.

Chapter 1 Introduction of mTray T8

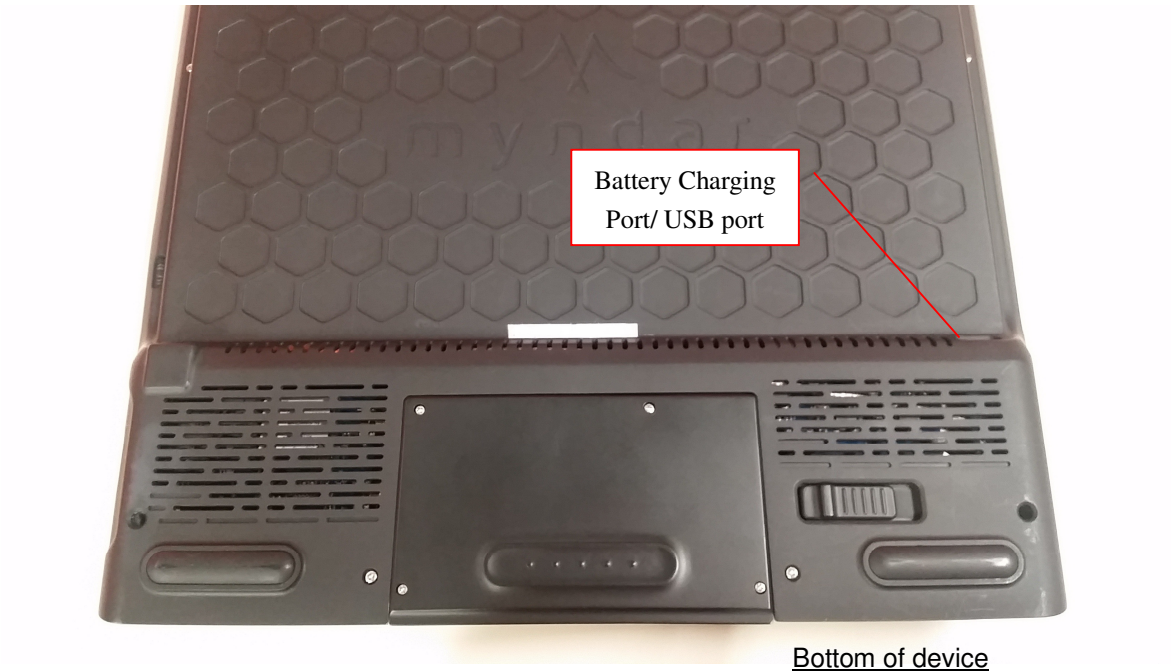


1.1 Overview of mTray T8:

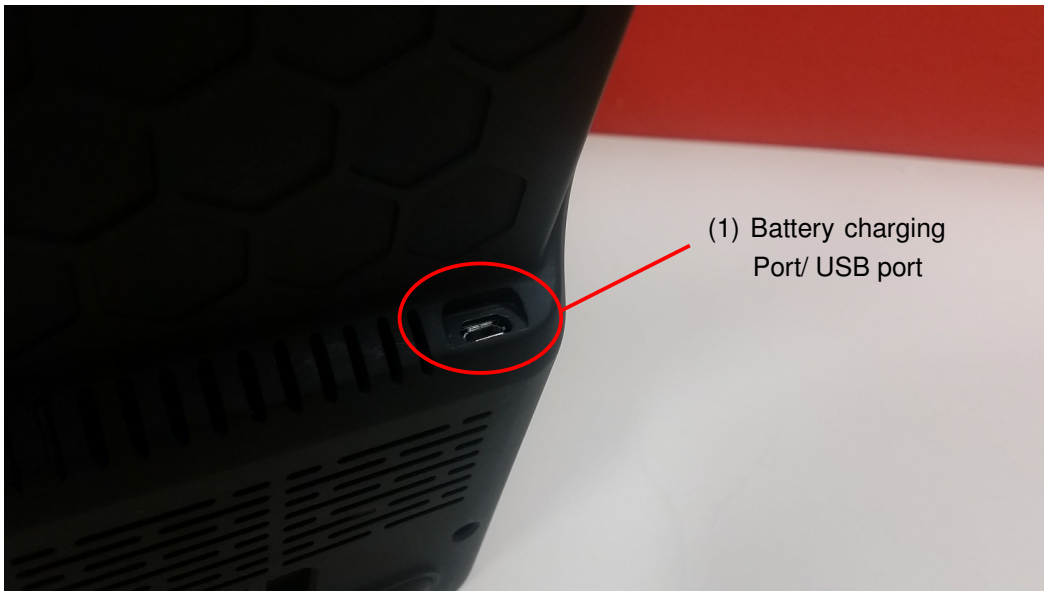
mTray T8 is an UHF EPC C1G2 mobile RFID handheld with Bluetooth technology, the plug & play Bluetooth connectivity increases the flexible on the RFID sale through Bluetooth enabled mobile device..

- The mTray T8 Intelligent RFID Reader supports protocols, UHF CLASS 1 GEN2 EPC C1G2/ISO 18000-6C, 917-928 MHz RFID frequency band in United States.

1.2 Ports Description



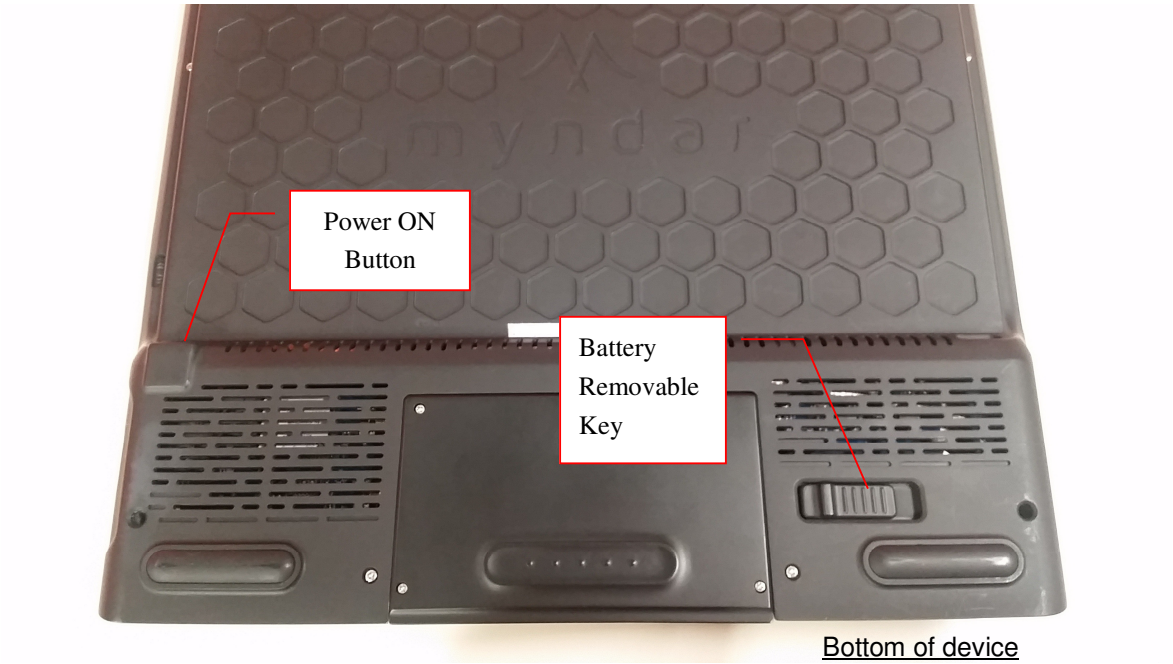
Bottom of device



Input port of the mTray T8:

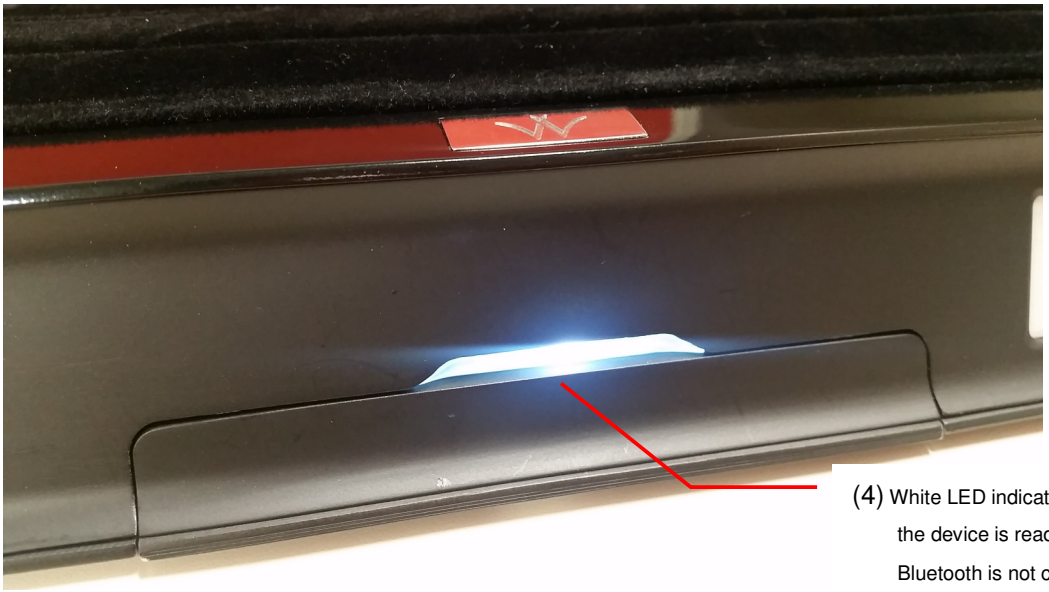
Items no.	*Name*	*Description*
1	USB	Charging battery

1.3 Buttons in mTray T8

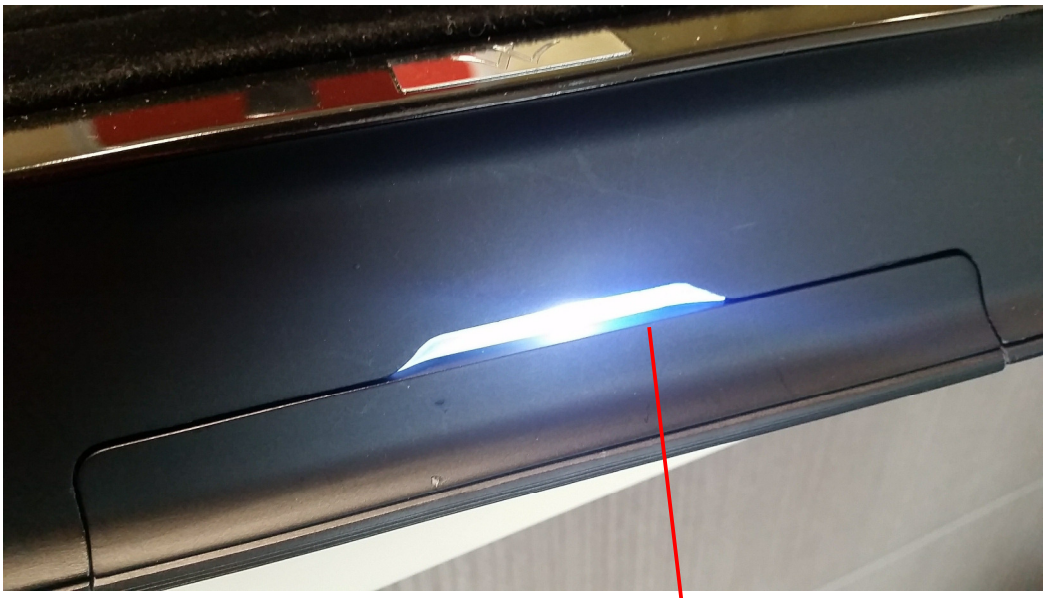


Items no.	*Name*	*Description*
2	Power ON Button	Press and hold to switch the device ON
3	Battery Removable Key	Pull left and hold to unlock battery

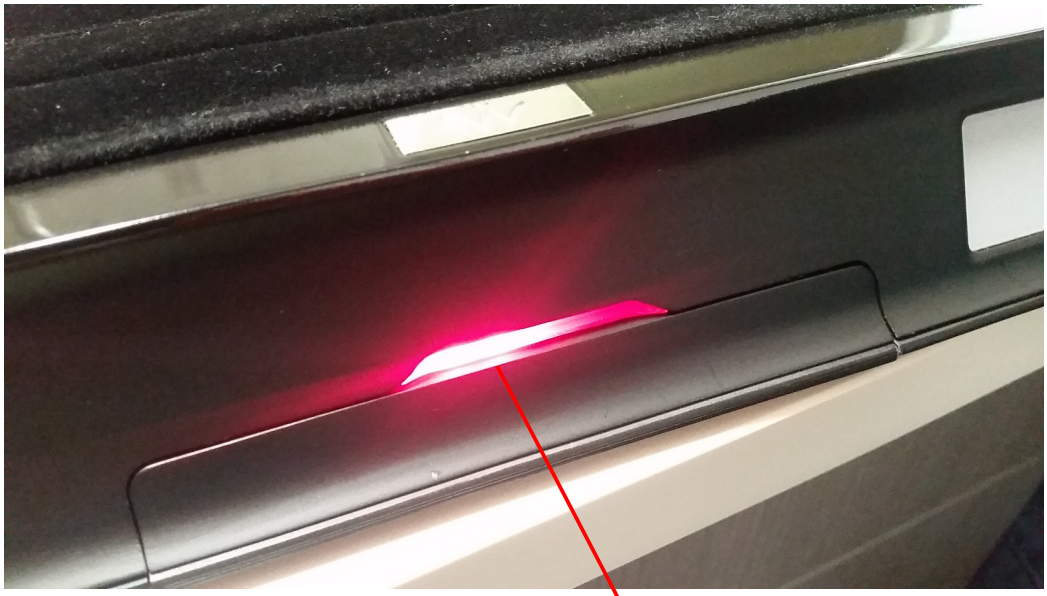
1.4 Indicators LEDs in mTray T8



(4) White LED indicates the device is readied but Bluetooth is not connected



(5) Blue LED indicates Bluetooth is connected



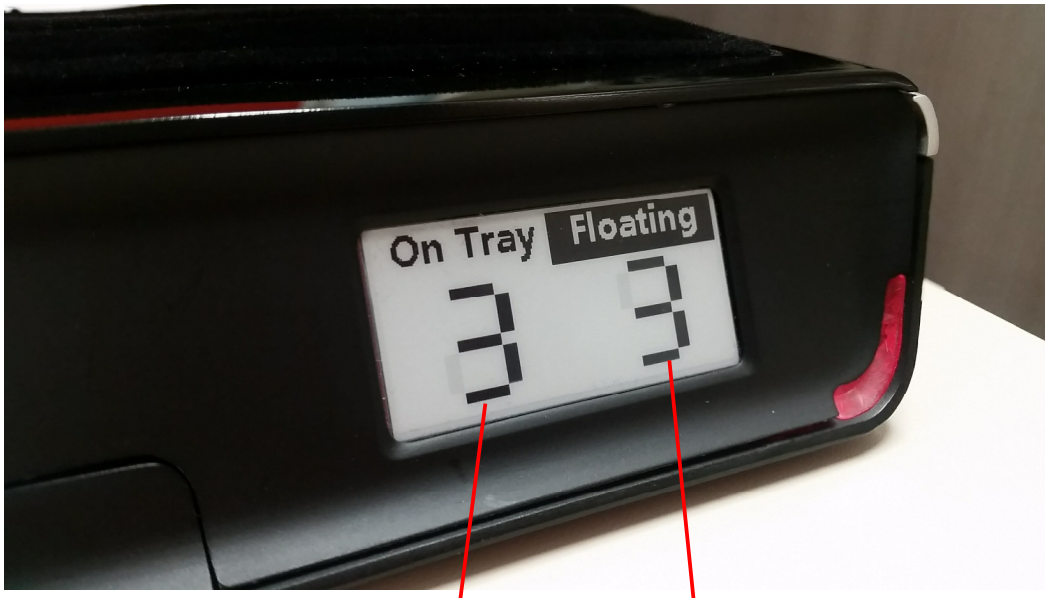
(6) Red LED indicates the battery is charging

(7) Green LED indicates the battery is charged

The mTray T8 has different LEDs to indicate the reader status.

Items no.	*Name*	*Description*
4	White LED	Bluetooth is ready but not connected
5	Blue LED (BT ON)	Bluetooth is connected
6	Red LED	Battery charging
7	Green LED	Battery charged Full
8	Red LED	Floating LED – item were out of tray

1.5 Indicators E-ink Panel in mTray T8



(9) 'On Tray' Signal

(10) 'Floating' Signal

E-ink panel shows the results of the data detected.

The readings of mTray E-ink Panel indicate the detected results.

Items no.	*Name*	*Description*
9	'On Tray' Signal	Number of item on tray
10	'Floating' Signal	Number of item out of tray

1.6 Specification:

Item	Specification
Input	1 power key button
	USB port
indicator	● Red LED stand for charging ● Green LED stand for fully charged ● White LED stand for BT on but not connected ● Blue LED stand for BT on and connected ● Red LED for floating item
Connectivity	Bluetooth module with UART interface
Battery	5000mAh standard battery
Charger	5V 2A ac to dc power adapter
Bluetooth	Bluetooth 4.0
Talk/ Standby time	6Hours continuous operation
Charging time	Charge completion <5 hours
Operation temp.	0 to +40 deg C
Storage temp.	-20 to +60 deg C
Operating Humidity	20% to 90%
Features	● <1 Watt (27dBm) Tx output levels and -80dBm Rx read sensitivity, ● Adjustable output Tx power levels over +5 to 27dBm range in 1dB steps, ● High durability in harsh environments, ● Easy installation and maintenance, ● All-in-one compact design, ● Supporting tag interface of EPC C1G2/ISO 18000-6C(UHF C1G2), ● Rechargeable ● Light Weight

Chapter 2 Installation of mTray T8

2.1 Start-up Procedure of mTray T8

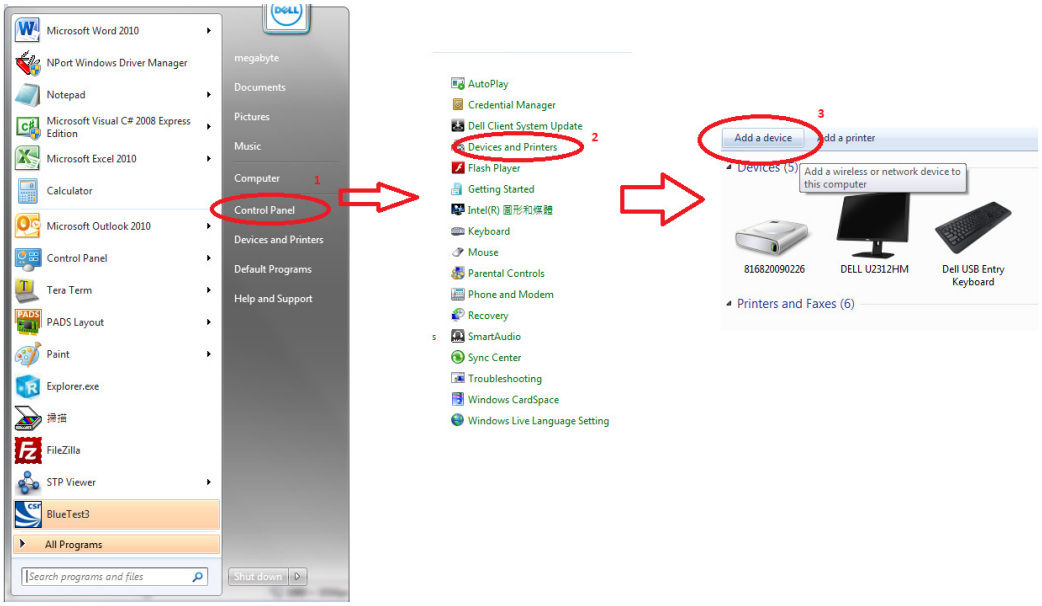
This section explains how to set-up mTray T8 and connect the mTray T8 to your computer:

I. Power On the mTray by pressed and hold the Power On button for 5second.

II. White LED lights up, which indicates the Bluetooth is readied to be connected.

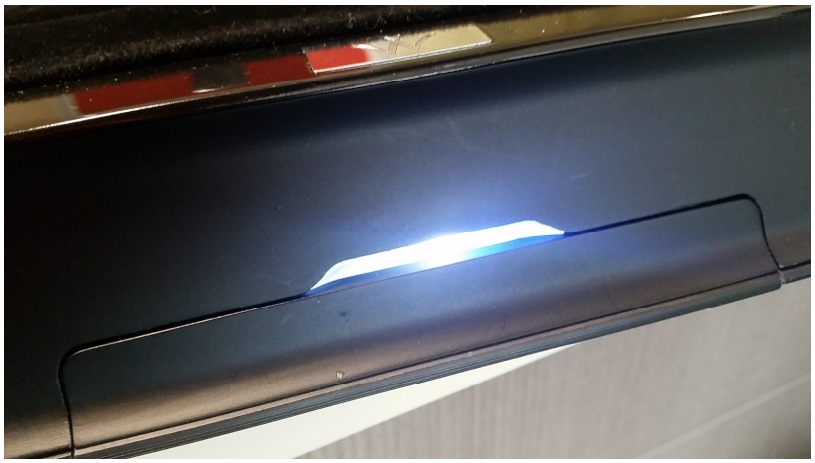
III. Search and Pair the Bluetooth with your computer:

- In startup manual, choose “Control Panel”.
- In “Control Panel”, choose “Devices and Printers”
- In “Devices and Printers”, press the button “add a device”, then select mTray BT address to pair. In general, the mTray BT name is called “ T8_XXXXXXXXXXXXX”



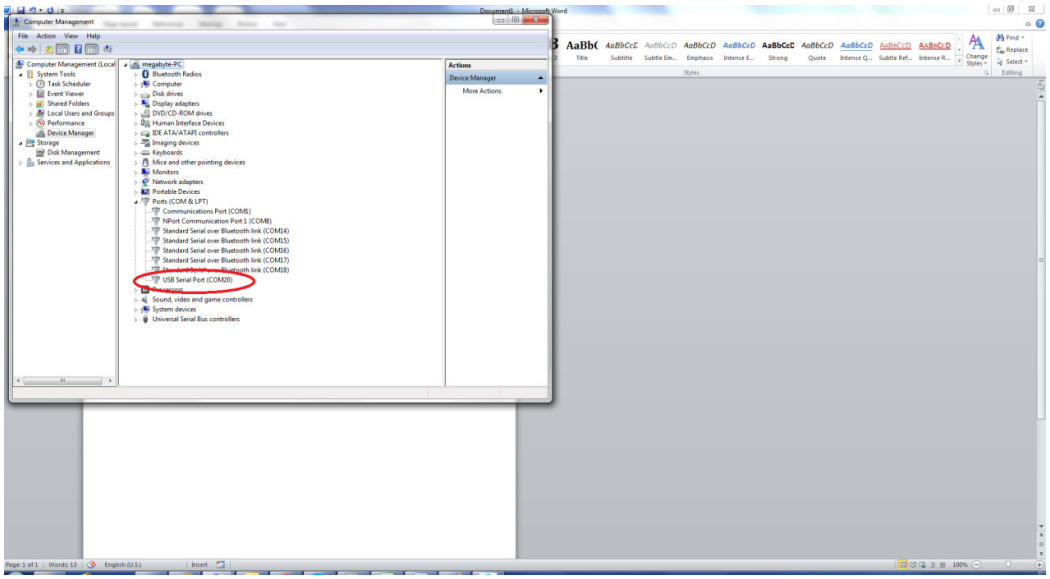
IV. mTray T8 operates at UHF frequency band, ranging from FCC 917-928 MHz, SRRC 920-925 MHz and NCC 922-928 MHz); the setting depends on countries’ regulations.

V. When the Bluetooth is connected, LED turns blue.



VI. After BT is connected, then run the program or apps like "UniversalReaderAssistant" in the computer to control the mTray operation.

VII. Set the "COM" number in the program which is generated after paired. The "COM" number can be found in the device manager in the computer.



VIII. Run the program.

2.2 Environmental Requirements

The next table includes environmental requirements for the mTray T8. Choose a location that meets these requirements.

Description	Minimum	Maximum
Operating temperature	0ºC	40ºC
Storage temperature	-20ºC	60ºC
Humidity (non-condensing)	20%	90%

2.3 Caution

Danger of Electric Shock

- Disconnect the device from the electric supply before cleaning or performing maintenance on the machine.
- Keep this device dry.
- Turn off or unplug the machine when it is not in use.

Please read the information contained within this user manual prior to attempting installation and operation of the RFID Reader. Failure to install and operate the RFID Terminal (mTray T8) in accordance with the information contained in this manual may result in unsatisfactory performance.

Chapter 3 Demonstration of RFID Applications

3.1 Creating RFID Application with mTray T8

mTray T8 is an intelligent reader and compliance with EPC global C1G2/ISO 18000-6C, Users can develop own UHF RFID application on this platform.

3.1.1 Delivering Application to mTray T8

When the user wants to deliver applications to the mTray T8, they just simply install the program in Windows and Linux platform.

3.1.2 Programming Language compatibility

Users may use several types of programming language, for examples, C++, C#.NET, Java and Java script.

Chapter 4 Regulatory Information

4.1 Federal Communications Commission (FCC) Compliance

4.1 Federal Communications Commission (FCC) Compliance

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

NOTE: This equipment 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 radiate 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.

WARNING: DO NOT ATTEMPT TO SERVICE THE WIRELESS COMMUNICATION DEVICE YOURSELF. SUCH ACTION MAY VOID THE WARRANTY. THE MTRAY T8 IS FACTORY TUNED. NO CUSTOMER CALIBRATION OR TUNING IS REQUIRED. CONTACT MEGABYTE LTD. TECHNICAL SUPPORT FOR INFORMATION ABOUT SERVICING YOUR WIRELESS COMMUNICATION DEVICE.

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

4.2 CE Compliance

This device has been tested to and conforms to the regulatory requirements of the European Union and has attained CE Marking. The CE Mark is a conformity marking consisting of the letters "CE". The CE Mark applies to products regulated by certain European health, safety and environmental protection legislation. The CE Mark is obligatory for products it applies to: the manufacturer affixes the marking in order to be allowed to sell his product in the European market.

The CE Marking is not a quality-mark. Foremost, it refers to the safety rather than to the quality of a product. Secondly, CE Marking is mandatory for the product it applies to, whereas most quality markings are voluntary.

Chapter 5 Disclaimer Notice

Disclaimer Notice

The manufacturer shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance or use of this material. This document contains proprietary information, which is protected by international patent applications and copyright. All rights reserved. No part of this document may be copied, reproduced or translated without prior written consent of the manufacturer. The manufacturer reserves the right to revise this publication and to make changes from time to time in the contents hereof without obligation to notify any person of such revisions or changes. The manufacturer also reserves the right to change the specifications without notice.

Chapter 6 Warranty

1. Megabyte Ltd warrants to the User that the Products sold to the User will comply with their published specifications and will be of satisfactory quality and that Megabyte Ltd is entitled to sell the Products to the User. Megabyte Ltd warrants that for a period of twelve (12) months from date of purchase ("the Warranty Period"), the products will be free from defects in materials and workmanship.

2. During the Warranty Period, Megabyte Ltd will repair, or if in Megabyte Ltd's opinion necessary replace, the defective product returned to Megabyte Ltd's head office in Hong Kong. The defective production must be returned in its original packaging and all shipping and handling charges shall be borne by the Users.

3. The Warranty Period shall not be extended by reason of any repair or replacement.

4. Megabyte Ltd shall have no liability to the User for any damage to or defects in any of the Products caused by fair wear and tear, improper use, negligent handling, failure to observe this User Manual and the instructions accompanying the Products or any alterations maintenance or repair to the Products by any person other than Megabyte Ltd, use of non-Megabyte Ltd parts, accessories or equipment, or third party software which would damage the Products.

5. Unless in the case of any damage to or defect in the Products which would have been apparent on reasonable visual inspection, the User notifies Megabyte Ltd of the same in writing within 7 days after the date of purchase thereof, or in the case of any damage to or defects in the Products which would not have been apparent on reasonable visual inspection the User notifies Megabyte Ltd of the same in writing 7 days after the defect becomes apparent to the User, the User shall not be entitled to reject the Products concerned.

6. The User shall be responsible for properly storing and making backup copies of all data which may be stored in the Products. Megabyte Ltd shall not be responsible for any lost of data as a result of any repair or replacement.

7. Except as expressly provided in this User Manual no warranty, condition, undertaking, or term, express or implied, statutory or otherwise, as to the condition, quality, performance, durability or fitness for purpose of the Products is given or assumed by Megabyte Ltd and all such warranties, conditions, undertakings and terms are hereby excluded to the fullest extent permitted by law.

Chapter 7 Support

Technical support/Sales Enquiry can be obtained from Megabyte Ltd.

Please email to: info@myndar.com