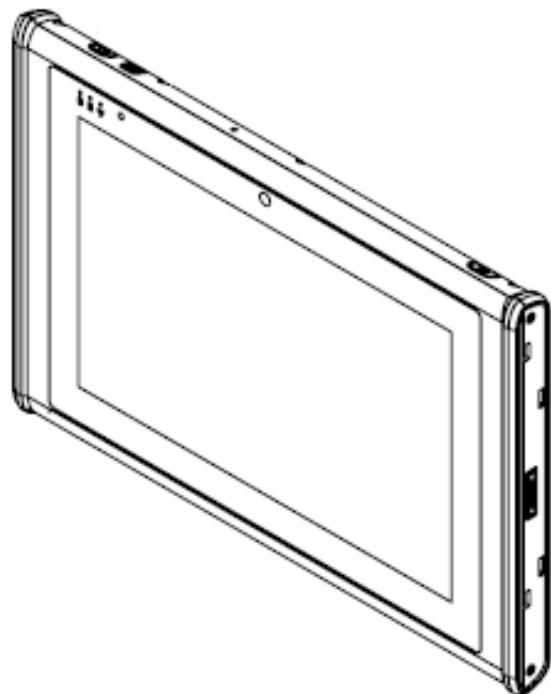


Mobile Computer

MIT-W102XXXXXXXXXXXXXX



User Manual

MIT-W102

Ver 1.1

Copyright

The documentation and the software included with this product are copyrighted 2020 by Advantech Co., Ltd. All rights are reserved. Advantech Co., Ltd. reserves the right to make improvements in the products described in this manual at any time without notice. No part of this manual may be reproduced, copied, translated or transmitted in any form or by any means without the prior written permission of Advantech Co., Ltd. Information provided in this manual is intended to be accurate and reliable. However, Advantech Co., Ltd. assumes no responsibility for its use, nor for any infringements of the rights of third parties, which may result from its use.

Acknowledgements

All other product names or trademarks are properties of their respective owners.

Intended use

The MIT-W102 is intended for integration with hospital system. It is designed for general purpose for hospital environment. For data collection and display for reference. It shall not be used for life-supporting system.

Intended user group

The primary users for the MIT-W102 series are professional healthcare personnel and general patient groups. It is appropriate for users aged between 18 and 55 to use the tablet and users' weight and health are not relevant.

Declaration of Conformity

CE Conformity Statement

Radio products with the CE alert marking comply with the RED Directive (2014/53/EU) issued by the Commission of the European Community. Compliance with this directive implies conformity to the following European Norms (in brackets are the equivalent international standards).

- EN 60950-1 (IEC60950-1) - Product Safety
- EN 300 328 Technical requirement for radio equipment
- EN 301 893 Technical requirement for radio equipment
- ET S301 489 General EMC requirements for radio equipment

Products that contain the radio transmitter are labeled with CE alert marking and may also carry the CE logo.

FCC Compliance Statement

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 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.

Any changes or modifications not expressly approved by the party responsible for

compliance could void the authority to operate equipment.

FCC frequency stability Statement:

Frequency Stability: The grantee ensured that the EUT meets Section 15.407(g) requirements.

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 employing a unit of measurement is known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6W/kg.

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. SAR information on this device is on file with the FCC and can be found under the Display Grant section of www.fcc.gov/oet/ea/fccid after searching on FCC ID: TX2-RTL8822CE

IC Compliance Statement

This device complies with Industry Canada'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.

Le présent appareil est conforme aux CNR d'Industrie Canada 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.

RSS-247 6.4(5) WLAN 11a

- (i) the device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;
- (ii) for devices with detachable antenna(s), the maximum antenna gain permitted for devices in the bands 5250-5350 MHz and 5470-5725 MHz shall be such that the equipment still complies with the e.i.r.p. limit;
- (iii) for devices with detachable antenna(s), the maximum antenna gain permitted for devices in the band 5725-5850 MHz shall be such that the equipment still complies with the e.i.r.p. limits specified for point-to-point and non-point-to-point operation as appropriate; and
- (iv) the worst-case tilt angle(s) necessary to remain compliant with the e.i.r.p. elevation mask requirement set forth in Section 6.2.2(3) shall be clearly indicated.

- (i) l'appareil pour fonctionner dans la bande 5150-5250 MHz est réservé à une utilisation en intérieur afin de réduire les risques d'interférences nuisibles à la co-canal systèmes mobiles par satellite;
- (ii) pour les appareils avec antenne (s) détachable, le gain d'antenne maximal autorisé pour les appareils dans les bandes 5250-5350 MHz et 5470-5725 MHz doit être telle que l'équipement satisfait encore la pire limite;
- (iii) pour les appareils avec antenne (s) détachable, le gain d'antenne maximal autorisé pour les appareils dans la bande 5725-5850 MHz doit être telle que l'équipement satisfait encore la pire limites spécifiées pour le point-à-point et non point-à-point, le cas échéant; opération et
- (iv) l'angle d'inclinaison du pire (s) nécessaire pour rester conforme à la pire exigence de masque d'élévation énoncées dans la section 6.2.2 (3) doit être clairement indiqué.

Technical Support and Assistance

1. Visit the Advantech website at <http://support.advantech.com> where you can find ***Caution! Exposure to Radio Frequency Radiation.***

The radiated output of this device is far below the FCC radio frequency exposure limits. Nevertheless, the device shall be used in such a manner that the potential for human contact during normal operation is minimized.

When connecting an external antenna to the device, the antenna shall be placed in such a manner to minimize the potential for human contact during normal operation. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20cm (8inches) during normal operation.

MIT-W102 User Manual I the latest information about the product.

2. Contact your distributor, sales representative, or Advantech's customer service center for technical support if you need additional assistance. Please have the following information ready before you call:

- Product name and serial number
- Description of your peripheral attachments
- Description of your software (operating system, version, application software, etc.)
- A complete description of the problem
- The exact wording of any error messages

Details of preparatory treatment or disposal

Installation is only to be carried out by manufacturer authorized and trained personnel.

Regarding calibrating the device, we suggest to send back the tablet to the supplier for annually check.

Safety Instructions

1. Read these safety instructions carefully.
2. Keep this user manual for later reference.
3. Disconnect this equipment from AC outlet before cleaning. Do not use liquid or spray detergents for cleaning.
4. For plug-in equipment, the power outlet socket must be located near the equipment and must be easily accessible.
5. Keep this equipment away from humidity.
6. Put this equipment on a reliable surface during installation. Dropping it or letting it fall could cause damage.
7. The openings on the enclosure are for air convection. Protect the equipment from overheating. **DO NOT COVER THE OPENINGS.**
8. Do not leave this equipment in an environment unconditioned where the storage temperature under -20°C or above 60°C, it may damage the equipment.
9. Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.
10. Place the power cord such a way that people cannot step on it. Do not place anything over the power cord. The voltage and current rating of the cord should be greater than the voltage and current rating marked on the product.
11. All cautions and warnings on the equipment should be noted.
12. If the equipment is not used for long time, disconnect it from the power source to avoid being damaged by transient over-voltage.
13. Never pour any liquid into ventilation openings. This could cause fire or electrical shock.
14. Never open the equipment. For safety reasons, the equipment should be opened only by qualified service personnel.
15. If any of the following situations arises, get the equipment checked by service personnel:
 - a. The power cord or plug is damaged.
 - b. Liquid has penetrated into the equipment.
 - c. The equipment has been exposed to moisture.
 - d. The equipment does not work well or you cannot get it to work according to user manual.
 - e. The equipment has been dropped and damaged.
 - f. The equipment has obvious signs of breakage.
16. **CAUTION:** The computer is provided with a battery-powered real-time clock circuit. There is a danger of explosion if battery is incorrectly replaced. Replace only with same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

17. If your computer is losing time significantly or the BIOS configuration resets itself to the default, the battery may have no power.

Caution! 1. Do not replace battery yourself. Please contact a qualified technician or your retail provider.

2. The computer is provided with a battery-powered real-time clock circuit. There is a danger of explosion if battery is incorrectly replaced. Replace only

with same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

18. CLASSIFICATION:

Supply Class I adapter
No applied part
Continuous Operation
Not AP or APG category

19. Disconnect device: disconnect the power cord and battery to fully power off the device

20. Do not place the power cord where it is difficult to disconnect and may be stepped by other persons.

21. Follow national, state or local requirements to dispose of unit.

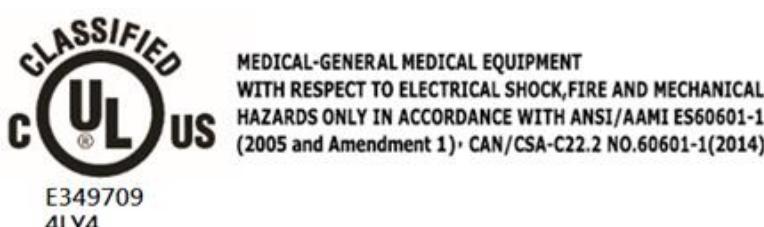
22. Maintenance: to properly maintain and clean the surfaces, use only the approved products or clean with a dry applicator.

23. Contact information:

No.1, Alley 20, Lane 26, Rueiguang Road Neihu District, Taipei, Taiwan 114,
R.O.C.

TEL: +886 2-2792-7818

24.



25. This equipment shall not be used as a life support system.

26. Accessory equipment connected to the analog and digital interfaces must be in compliance with the respective nationally harmonized IEC standards (i.e. IEC 60950 for data processing equipment, IEC 60065 for video equipment, IEC 61010-1 for laboratory equipment, and IEC 60601-1 for medical equipment.) Furthermore all configurations shall comply with the system standard IEC 60601-1-1. Anyone who connects additional equipment to the signal input part or signal output part is configuring a medical system, and is therefore, responsible that the system complies with the requirements of the system standard IEC 60601-1-1. The unit is for exclusive interconnection with IEC 60601-1 certified equipment in the patient environment and IEC 60XXX certified equipment outside of the patient environment. If in doubt, consult the technical services department or your local representative.

27. Users must not allow SIP/SOPs to come into contact with the patient at the same time.

28. The sound pressure level at the operator's position according to IEC 704-1:1982 is no more than 70dB (A).

29. WARNING - Do not modify this equipment without authorization of the manufacturer.



30. WARNING - To avoid risk of electric shock, this equipment must only be connected to a supply mains with protective earth.





31. **WARNING:** Please avoid having enclosure to contact with skin more than 1 minute.



32. **CAUTION!** This product: MIT-W102 is used with the Qualified and certificated power adapter:
Delta ELECTRONICS CO LTD, model MDS-060AAS19 B. Output: 19Vdc, 3.15A max

DISCLAIMER: This set of instructions is given according to IEC 704-1. Advantech disclaims all responsibility for the accuracy of any statements contained herein.

In case of serious incident that has occurred, please contact the manufacturer and local authorities immediately.

Consignes de sécurité

1. Lisez attentivement ces consignes de sécurité.
2. Conservez ce manuel de l'utilisateur pour référence ultérieure.
3. Débranchez cet équipement de la prise secteur avant de le nettoyer. N'utilisez pas de détergents liquides ou en aérosol pour le nettoyage.
4. Pour les équipements enfichables, la prise de courant doit être située à proximité de l'équipement et doit être facilement accessible.
5. Gardez cet équipement à l'abri de l'humidité.
6. Placez cet équipement sur une surface fiable pendant l'installation. Le faire tomber ou le laisser tomber peut causer des dommages.
7. Les ouvertures sur le boîtier sont destinées à la convection d'air. Protégez l'équipement contre la surchauffe. **NE COUVREZ PAS LES OUVERTURES.**
8. Ne laissez pas cet équipement dans un environnement non conditionné où la température de stockage est inférieure à -20 ° C ou supérieure à 60 ° C, cela pourrait endommager l'équipement.
9. Assurez-vous que la tension de la source d'alimentation est correcte avant de connecter l'équipement à la prise de courant.
10. Placez le cordon d'alimentation de manière à ce que personne ne puisse marcher dessus. Ne placez rien sur le cordon d'alimentation. La tension et le courant du

cordons doivent être supérieurs à la tension et au courant indiqués sur le produit.

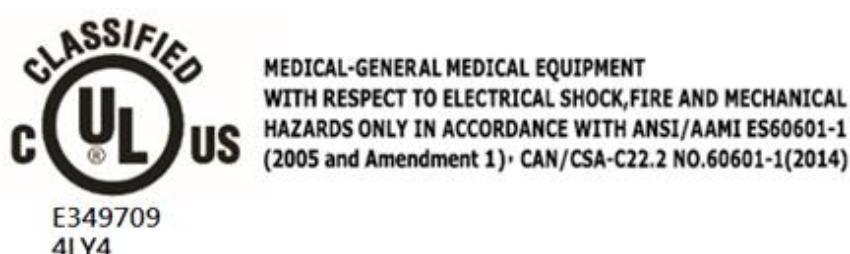
11. Tous les avertissements et avertissements sur l'équipement doivent être notés.
12. Si l'équipement n'est pas utilisé pendant une longue période, débranchez-le de la source d'alimentation pour éviter d'être endommagé par une surtension transitoire.
13. Ne versez jamais de liquide dans les ouvertures de ventilation. Cela pourrait provoquer un incendie ou un choc électrique.
14. N'ouvrez jamais l'équipement. Pour des raisons de sécurité, l'équipement ne doit être ouvert que par du personnel qualifié.
15. Si l'une des situations suivantes se produit, faites vérifier l'équipement par le personnel de service:
 - une. Le cordon d'alimentation ou la prise est endommagé.
 - b. Du liquide a pénétré dans l'équipement.
 - c. L'équipement a été exposé à l'humidité.
- ré. L'équipement ne fonctionne pas bien ou vous ne pouvez pas le faire fonctionner conformément au manuel d'utilisation.
- e. L'équipement est tombé et est endommagé.

F. L'équipement présente des signes évidents de casse.



16. ATTENTION: l'ordinateur est équipé d'un circuit d'horloge en temps réel alimenté par batterie. Il existe un risque d'explosion si la pile n'est pas remplacée correctement. Remplacez uniquement par un type identique ou équivalent recommandé par le fabricant. Jetez les piles usagées conformément aux instructions du fabricant.
17. Si votre ordinateur perd du temps de manière significative ou si la configuration du BIOS se réinitialise aux valeurs par défaut, la batterie peut ne pas être alimentée. Mise en garde! 1. Ne remplacez pas la batterie vous-même. Veuillez contacter un technicien qualifié ou votre revendeur.
 2. L'ordinateur est équipé d'un circuit d'horloge en temps réel alimenté par batterie. Il existe un risque d'explosion si la pile n'est pas remplacée correctement. Remplacez uniquement par un type identique ou équivalent recommandé par le fabricant. Jetez les piles usagées conformément aux instructions du fabricant.
18. CLASSIFICATION:
 - Adaptateur de classe I
 - Aucune pièce appliquée
 - Opération continue
 - Pas de catégorie AP ou APG
19. Déconnectez l'appareil: débranchez le cordon d'alimentation et la batterie pour éteindre complètement l'appareil.

20. Ne placez pas le cordon d'alimentation à un endroit où il est difficile de le déconnecter et où d'autres personnes pourraient marcher dessus.
21. Respectez les exigences nationales, régionales ou locales pour éliminer l'unité.
22. Entretien: pour bien entretenir et nettoyer les surfaces, n'utiliser que les produits approuvés ou nettoyer avec un applicateur sec.
23. Coordonnées:
No.1, Alley 20, Lane 26, Rueiguang Road Neihu District, Taipei, Taiwan 114, R.O.C.
TEL: +886 2-2792-7818
- 24.



25. Cet équipement ne doit pas être utilisé comme système de survie.
26. L'équipement accessoire connecté aux interfaces analogiques et numériques doit être conforme aux normes CEI harmonisées au niveau national respectives (c'est-à-dire CEI 60950 pour les équipements de traitement de données, CEI 60065 pour les équipements vidéo, CEI 61010-1 pour les équipements de laboratoire et CEI 60601-1. pour les équipements médicaux.) En outre, toutes les configurations doivent être conformes à la norme système CEI 60601-1-1. Quiconque connecte un équipement supplémentaire à la partie d'entrée de signal ou à la partie de sortie de signal configure un système médical et est donc responsable de la conformité du système aux exigences de la norme système CEI 60601-1-1. L'unité est destinée à une interconnexion exclusive avec un équipement certifié CEI 60601-1 dans l'environnement du patient et un équipement certifié CEI 60XXX en dehors de l'environnement du patient. En cas de doute, consultez le service technique ou votre représentant local.
27. Les utilisateurs ne doivent pas permettre aux SIP / SOP d'entrer en contact avec le patient en même temps.
28. Le niveau de pression acoustique au poste de conduite selon la CEI 704-1: 1982 n'excède pas 70 dB (A).

29. AVERTISSEMENT - Ne modifiez pas cet équipement sans l'autorisation du fabricant.





30. AVERTISSEMENT - Pour éviter tout risque d'électrocution, cet équipement ne doit être connecté qu'à une alimentation secteur avec terre de protection.



31. AVERTISSEMENT: veuillez éviter tout contact du boîtier avec la peau pendant plus d'une minute.



32. ATTENTION! Ce produit: MIT-W102 est utilisé avec le Adaptateur secteur qualifié et certifié: Delta ELECTRONICS CO LTD, modèle MDS-060AAS19 B. Sortie: 19 Vdc, 3,15 A max

AVIS DE NON-RESPONSABILITÉ: Cet ensemble d'instructions est donné conformément à la norme CEI 704-1. Advantech décline toute responsabilité quant à l'exactitude des déclarations contenues dans ce document.

En cas d'incident grave survenu, veuillez contacter immédiatement le fabricant et les autorités locales.

Battery Safety

RTC Battery Caution

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.

DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

Do not place the battery incorrectly as this may cause danger of explosion.

Dispose of used batteries according to the manufacturer's instructions.

Do not dispose of batteries in a fire. They may explode. Check with local authorities for disposal instructions.

Battery Pack Caution

The battery used in this device may present a risk of fire or chemical burn if mistreated. Do not disassemble, heat above 40°C, or incinerate. Replace standard battery pack with Advantech MIT-W102-BATC Li-ion 11.1V 2860mAh. Use of another battery may present a risk of fire or explosion.

Dispose of used batteries according to local disposal regulations. Keep away from children. Do not disassemble and do not dispose of in a fire.



Battery Charge Notice

It is important to consider the environment temperature whenever you are charging the Lithium-Ion battery pack. The process is more efficient at normal room temperature or slightly cooler. It is essential that you charge batteries within the stated range of 0°C to 35°C. Charging batteries outside of the specified range could damage the batteries and shorten their charging life cycle.

Storage and Safety Notice

Although charge Lithium-Ion batteries may be left unused for several months, their capacity may be depleted due to the buildup of internal resistance. If this happens they will require recharging prior to use. Lithium-Ion batteries may be stored at temperatures between -20°C to 60°C, however they may be depleted more rapidly at the high end of this range. It is recommended to store batteries within normal room temperature ranges.

Disposing of Batteries or Battery Pack.

Batteries, battery packs, and accumulators should not be disposed of as unsorted household waste. Please use the public collection system to return, recycle, or treat them in compliance with the local regulations.

Chapter 1 Ready to Go	16
1.1 Symbols Used in this Manual	17
1.2 Product Features.....	17
1.3 Package Contents	18
1.4 System Configuration	19
1.6 Exploring the MIT-W102.....	20
1.6.1 Front View	20
1.6.2 Rear View	21
1.6.3 Right View.....	22
1.6.4 Left View	22
1.6.5 Top View	23
1.6.6 Bottom View	23
Chapter 2 Making Connections.....	24
2.1 Connecting the Power.....	25
2.2 Connecting to a Monitor	25
2.3 Connecting USB Devices.....	26
2.4 Connecting Headphones	26
2.5 Connecting a Microphone	27
Chapter 3 Turning On	28
3.1 Controlling the MIT-W102.....	29
3.1.1 Using the Touch Screen.....	29
3.1.2 Using the Tap Function.....	29
3.1.3 Using the Control Panel Buttons	29
3.1.4 Using the On-Screen Keyboard	30
3.1.5 Adjusting Screen Brightness	33
3.1.6 Adjusting the Volume.....	34
Chapter 4 Wireless Connections	35
4.1 Wi-Fi Connection.....	36

4.2 Bluetooth Connections.....	39
4.2.1 Setting Up Bluetooth	39
Chapter 5 Advance Setting.....	43
5.1 Checking Battery Status	44
5.2 Maintenance	44
5.2.1 Maintaining the Battery	44
5.2.2 Maintaining the LCD Display	45
5.2.3 Cleaning the MIT-W102.....	45
5.3 Trouble Shooting	45
Chapter 6 Dashboard and Hotkey setting	49
6.1 Dashboard.....	50
6.2 NFC	50
6.2.1 NFC application	50
6.2.2 NFC Setting	51
6.2.3 NFC Usage.....	53
6.3 Camera	53
6.4 Brightness.....	56
6.5 Hotkey Setting	57
Appendix Specifications.....	58
A.1 Specifications	59
A.2 Optional Accessories	61
A.2.1 External Battery	61
A.2.2 Office Docking Station	62
A.2.3 VESA Docking Station	66
A.2.4 Adjustable Stand (with the hand strap)	68
A.2.5 Rubber Bumper.....	71
A.3 Installing SSD	73

Chapter 1 Ready to Go

Congratulations on your purchase of the MIT-W102 Rugged Tablet PC. This product combines rugged design with reliable performance and powerful functionality to best suit all your needs, in a wide range of working conditions. This user manual outlines all you need to know to set up and use your MIT-W102. If you have any further questions or queries, contact our technical support team via our website: <http://www.advantech.com.tw/>

1.1 Symbols Used in this Manual

	Denotes information that must be observed. Failure to do so may result in personal harm or damage to the product.
	Denotes information that must be observed. Failure to do so may result in personal harm or damage to the product.

1.2 Product Features

- Rugged design.
- Featuring with the Future Intel® Pentium™ processor for intelligent system.
- Built-in WLAN/Bluetooth/NFC
- Durable, shock-resistant magnesium alloy housing.
- 10.1 " WUXGA TFT LCD
- Power Requirements
DC Input Voltage: 19 V
Power Consumption: less than 60 W

1.3 Package Contents

Ensure all the following items are present when you receive your MIT-W102. If any of these items are missing, contact your vendor immediately.

	Screens used in this manual are for illustrative purposes only. Actual screens may vary depending on your product version.
-----------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------

- MIT-W102 Tablet PC
- AC power adaptor
- Battery Pack



Warning! To prevent electric shock, Do not remove cover.

Warning!

1. *Input voltage rated 100-250 VAC, 50-60 Hz, 1.5-0.75 A, Output Voltage rated 19 VDC , max 3.15 A*
2. *Use a 11 Vdc @ 2860 mA lithium battery*
3. *Maintenance: to properly maintain and clean the surfaces, use only approved products or clean with a dry applicator*



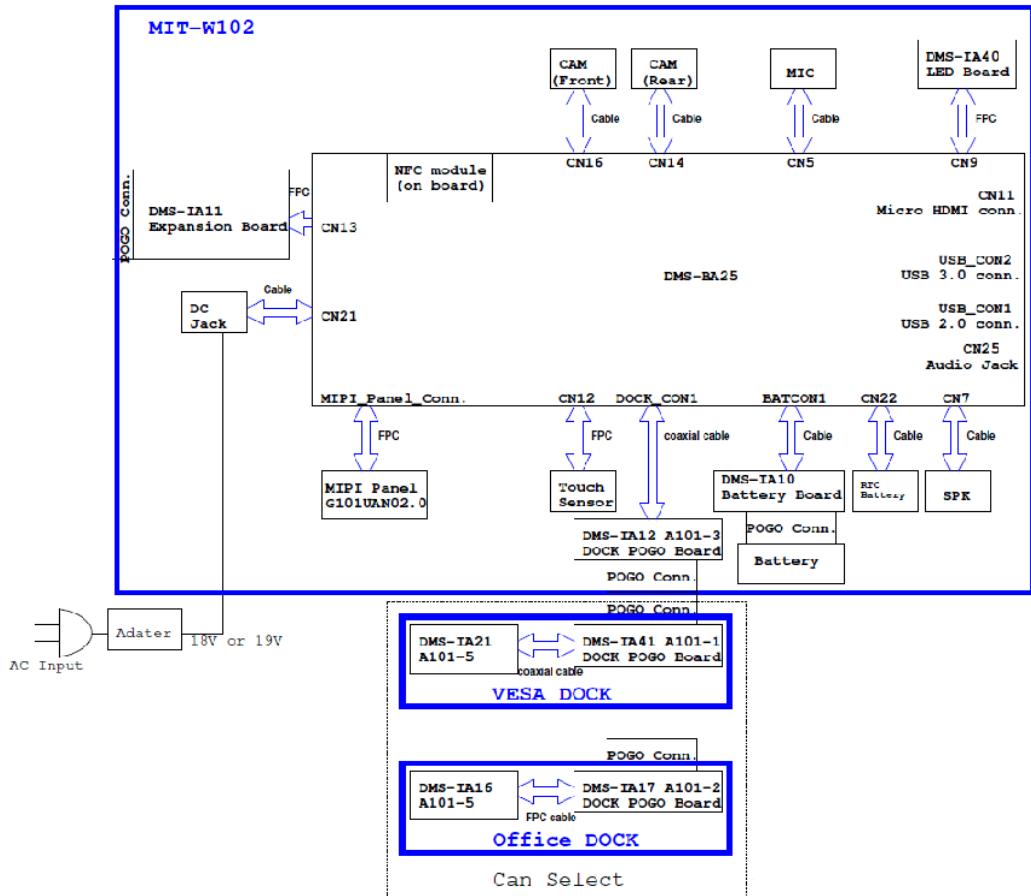
Caution!

1. *Do not replace battery yourself. Please contact a qualified technician or your retail provider.*
2. *The computer is provided with a battery-powered real-time clock circuit. There is a danger of explosion if battery is incorrectly replaced. Replace only with same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.*

No user serviceable parts inside, refer servicing to qualified personnel.

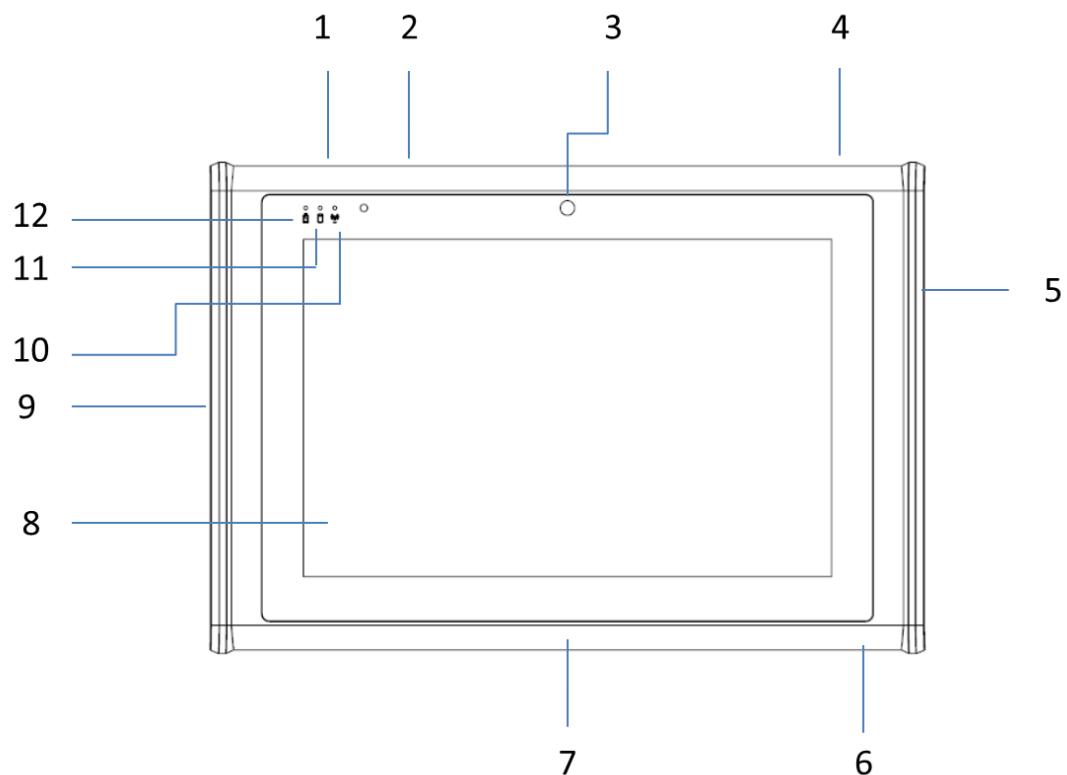
1.4 System Configuration

The block diagram of a MIT-W102 tablet computer is shown in the following diagram:



1.6 Exploring the MIT-W102

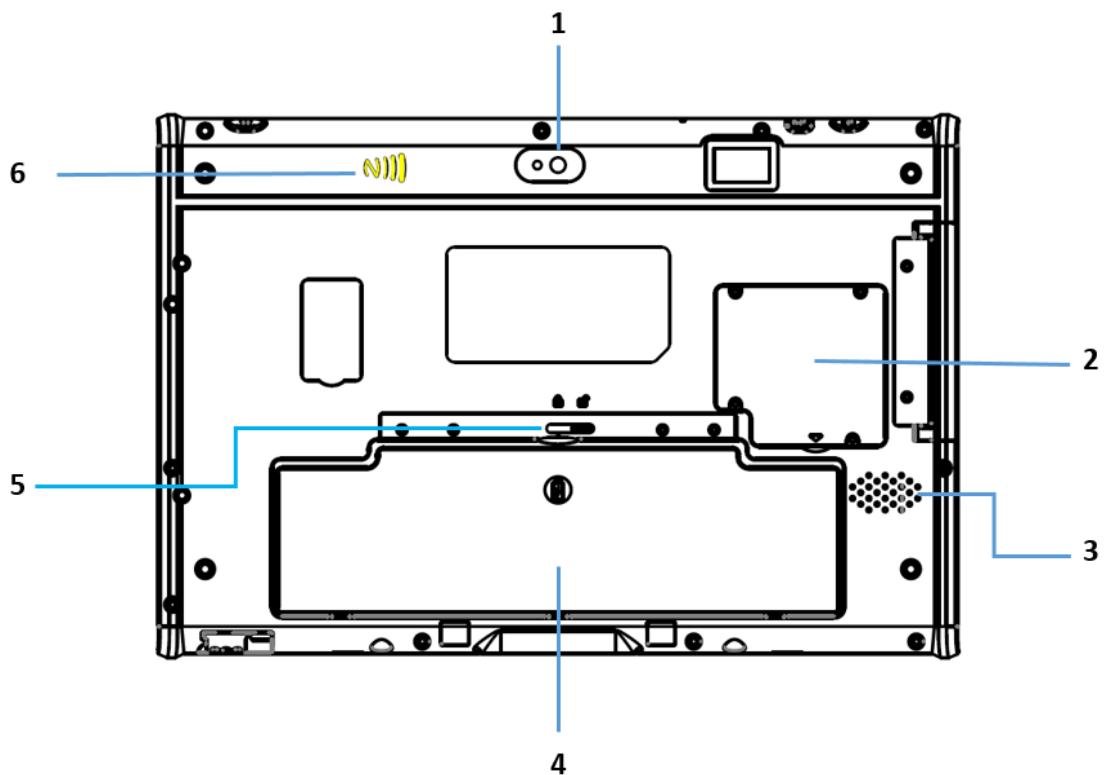
1.6.1 Front View



No.	Component
1	P1 - Programmable Button
2	P2 - Programmable Button
3	Front Camera
4	Power button
5	Connected to expansion module
6	DC-in jack
7	Docking connector
8	Projective capacitive multiple touch screen
9	I/O ports <ul style="list-style-type: none">• USB 3.0 x 1• USB 2.0 x 1• Micro HDMI x 1

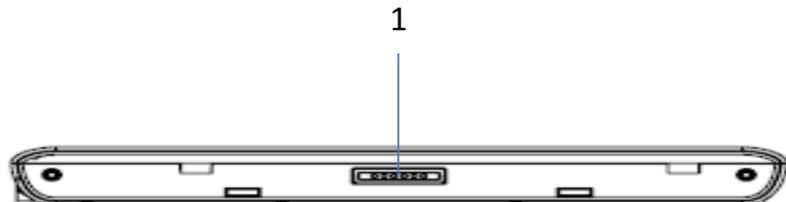
	<ul style="list-style-type: none"> • Audio x 1
10	<p>Connectivity LED indicator</p> <ul style="list-style-type: none"> • Blue: when Wi-Fi / BT module is on
11	<p>HDD LED indicator</p> <ul style="list-style-type: none"> • Blinking green: when hard disk drive is working
12	<p>Power / Battery LED indicator</p> <ul style="list-style-type: none"> • Green: Battery is fully charged (>95%) • Amber : Battery is charging or Battery life is lower than 10%

1.6.2 Rear View



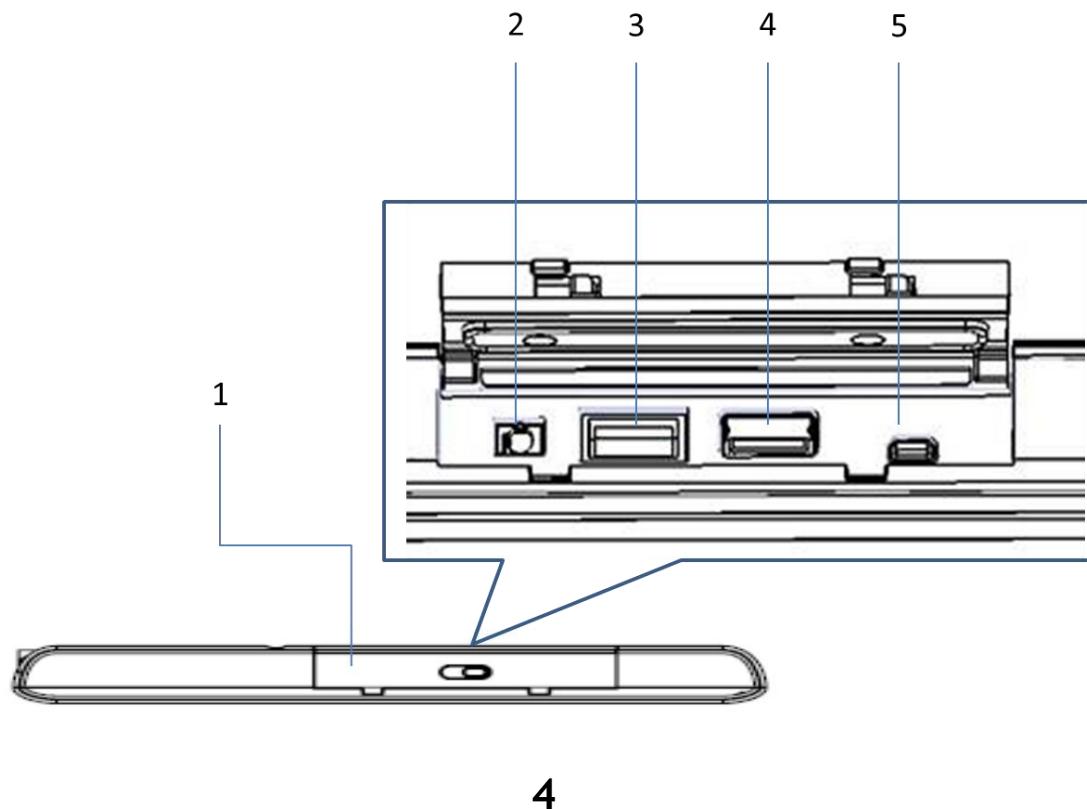
No.	Component
1	Back camera
3	SSD cover
4	Speaker
5	Battery
6	Battery Latch
7	NFC

1.6.3 Right View



No.	Component
1	Connected pin for expansion module

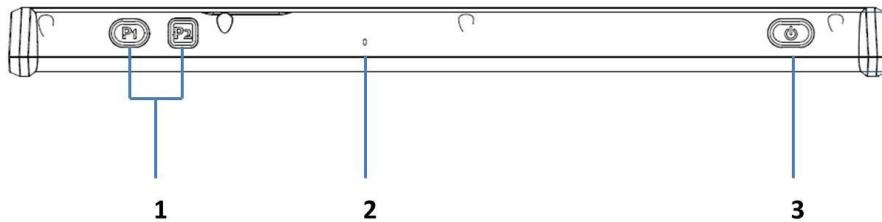
1.6.4 Left View



No.	Component
1	I/O ports cover
2	Audio Jack
3	USB 3.0

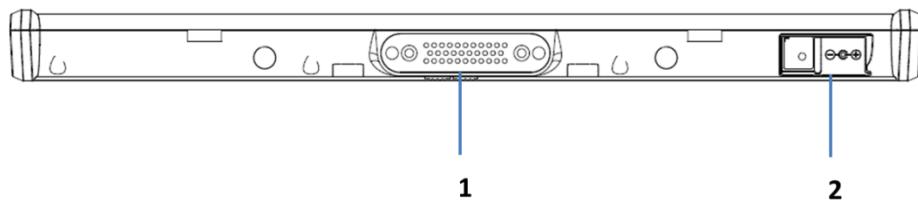
4	USB 2.0
5	Micro HDMI

1.6.5 Top View



No.	Component
1	Function buttons
2	Built-in MIC
3	Power button

1.6.6 Bottom View



No.	Component
1	Docking connector
2	AC-in jack

Chapter 2 Making Connections

2.1 Connecting the Power

Before you can use your MIT-W102, you must fully charge the battery. Connect the power adapter as shown and leave to charge for:

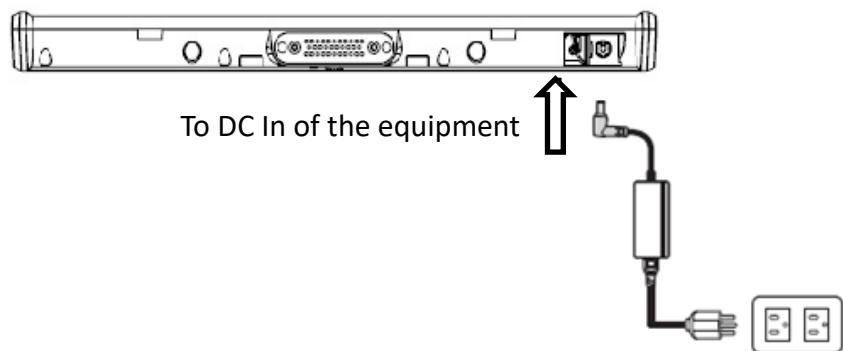
- A minimum of 2 hours when using the internal battery

Condition: the operation time is based on the LCD backlight at 50% and the average utilization of the system under 10%.

Installation Procedures:

1. Connect the female end of the power adapter to the DC-in of MIT-W102.
2. Connect the female end of the power cord to the DC power adapter.
3. Connect the 3-pin male plug of the power cord to an electrical outlet.

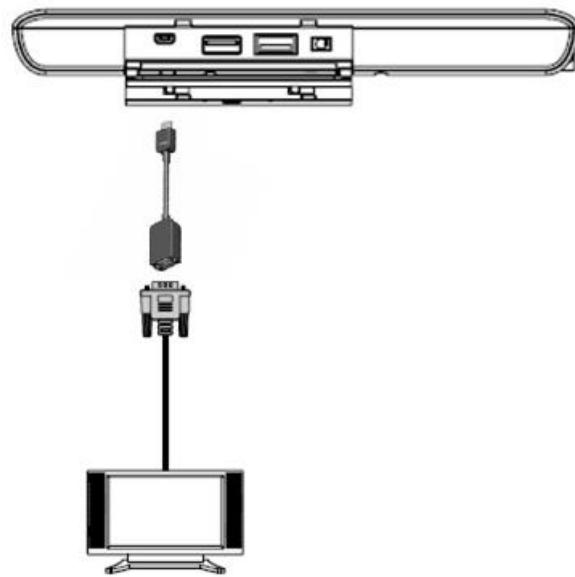
NOTE: Be sure always handle the power cords by holding the plug ends only.



2.2 Connecting to a Monitor

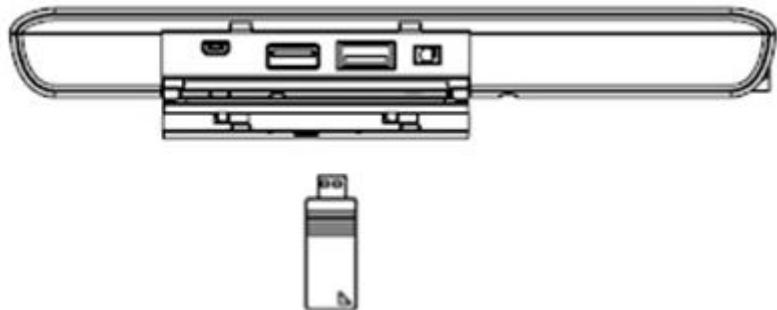
You can connect the MIT-W102 to an external monitor for enhanced viewing.

Connect one end of a HDMI to VGA cable to the Micro HDMI port on the left side of the MIT-W102. Connect the other end to the VGA cable and connect to the monitor.



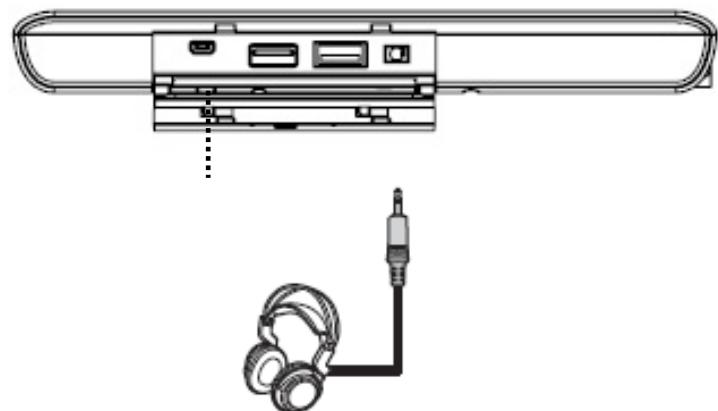
2.3 Connecting USB Devices

You can connect peripheral devices, such as a USB keyboard and mouse, as well as other wireless devices using the USB ports on the left side of the MIT-W102.



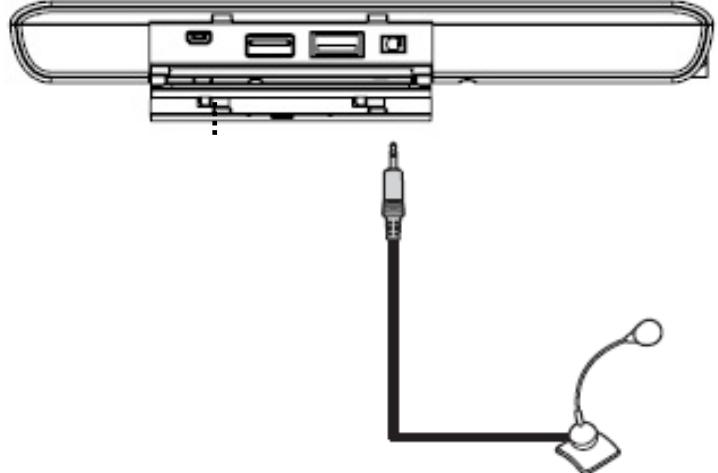
2.4 Connecting Headphones

You can connect a pair of headphones using the headphone jack on the left side of the MIT-W102.



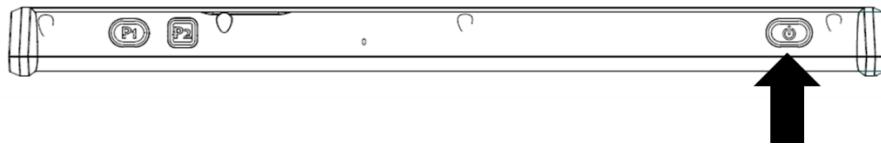
2.5 Connecting a Microphone

The MIT-W102 features a built-in microphone, but you can still connect an external microphone if needed. Connect the microphone to the microphone jack on the left side of the MIT-W102 as shown.



Chapter 3 Turning On

1. Press and hold the power button to turn on the MIT-W102.



3.1 Controlling the MIT-W102

3.1.1 Using the Touch Screen

The MIT-W102 is equipped with touch screen technology, for ease of use when you are on the go. Simply tap the screen with your finger to select icons and run applications.

3.1.2 Using the Tap Function

When you tap on the screen with a pen or stylus, it emulates click functions of a regular mouse.

- To emulate a left click single tap the screen once.
- To emulate a right click tap and hold the screen.
- To emulate a double click, tap the screen twice.

3.1.3 Using the Control Panel Buttons

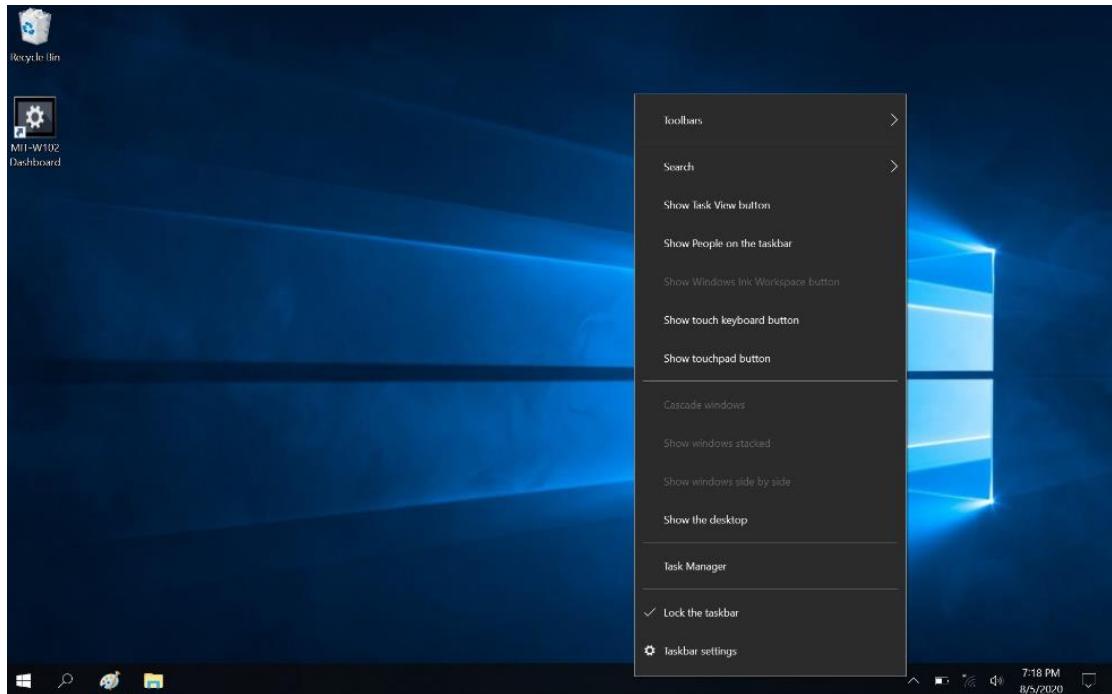
The control panel buttons are located on the top side of MIT-W102.

See below for a description of the two buttons and its function.

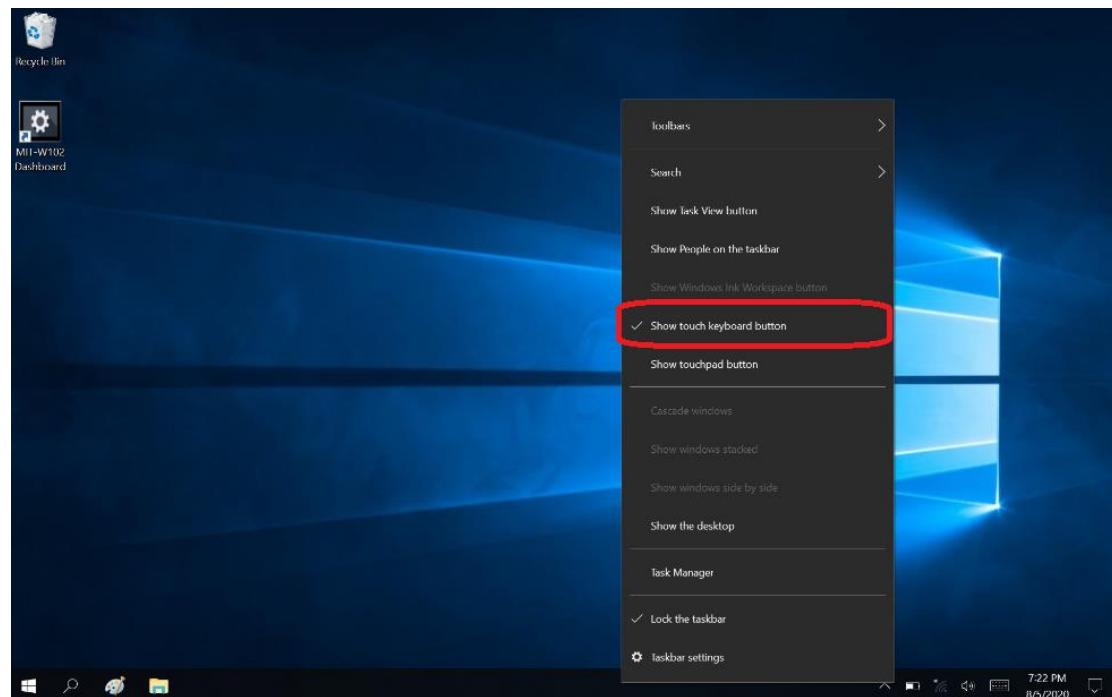
Button	Name	Function
 	Function	Press to access your favorite programs
	Power	Press to power on/off

3.1.4 Using the On-Screen Keyboard

1. Press and hold on the taskbar.



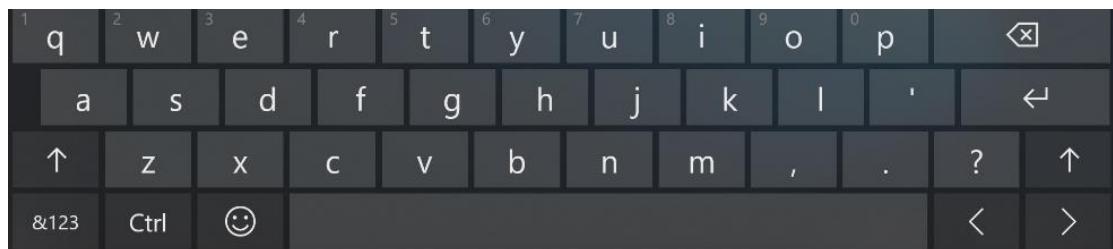
2. Enable “show touch keyboard button”



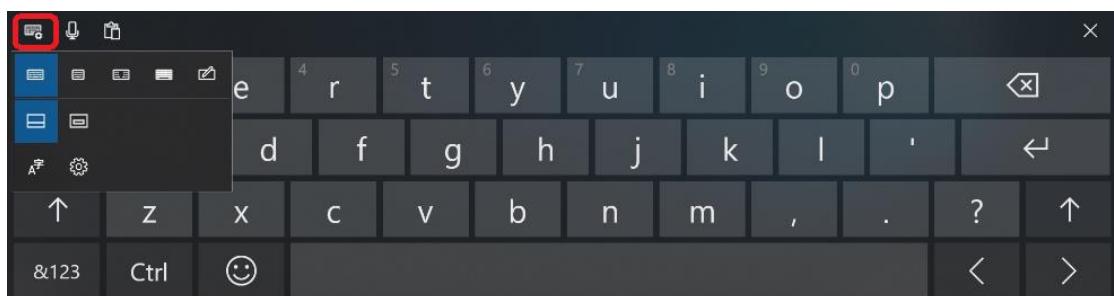
3. Tap the icon on the taskbar to open the keyboard



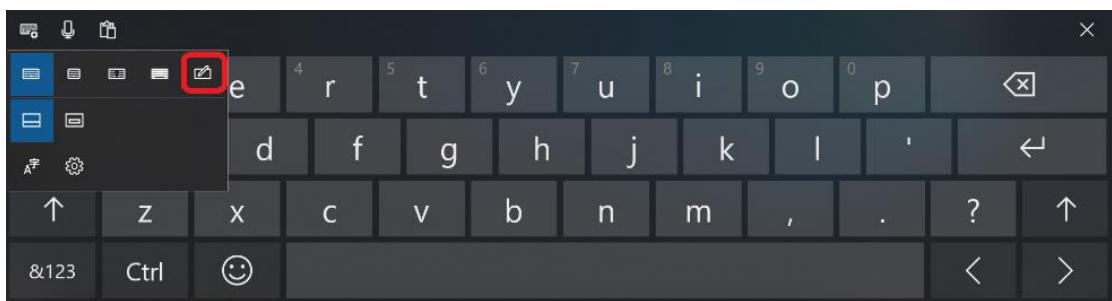
4. Use your finger or stylus pen to tap and enter letters, numbers and symbols as you would with a regular keyboard. To type capital letters tap the lock icon on the on-screen keyboard.



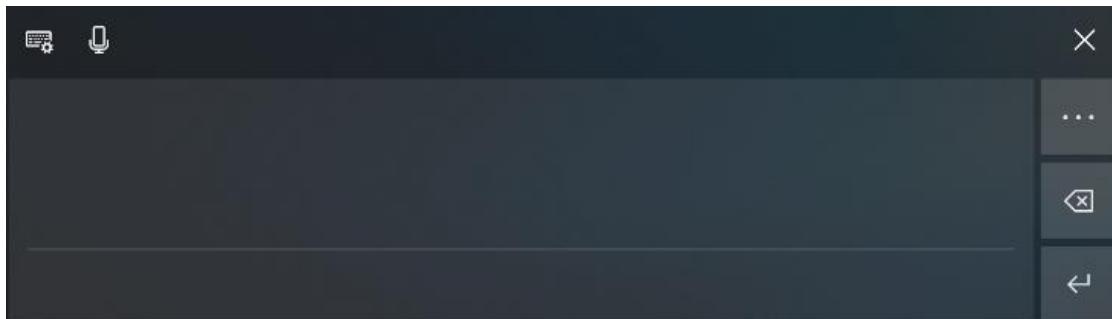
a. To use handwriting, tap upper left button of On-Screen Keyboard.



b. Select the **handwriting** icon.

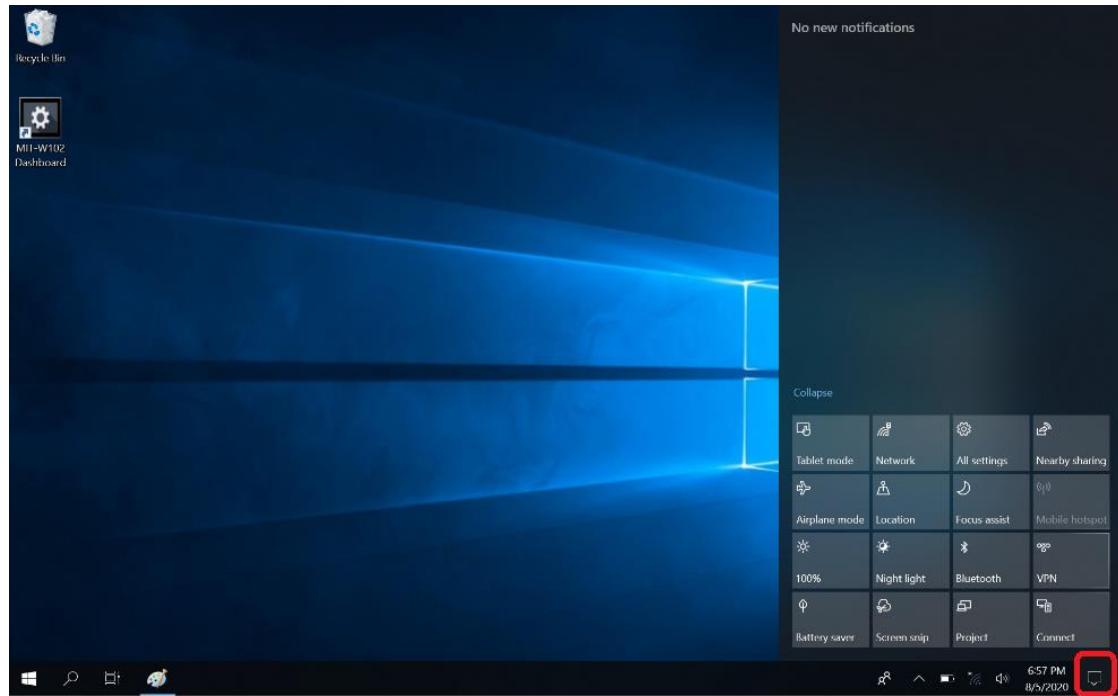


c. Use your finger and stylus pen to write on screen.

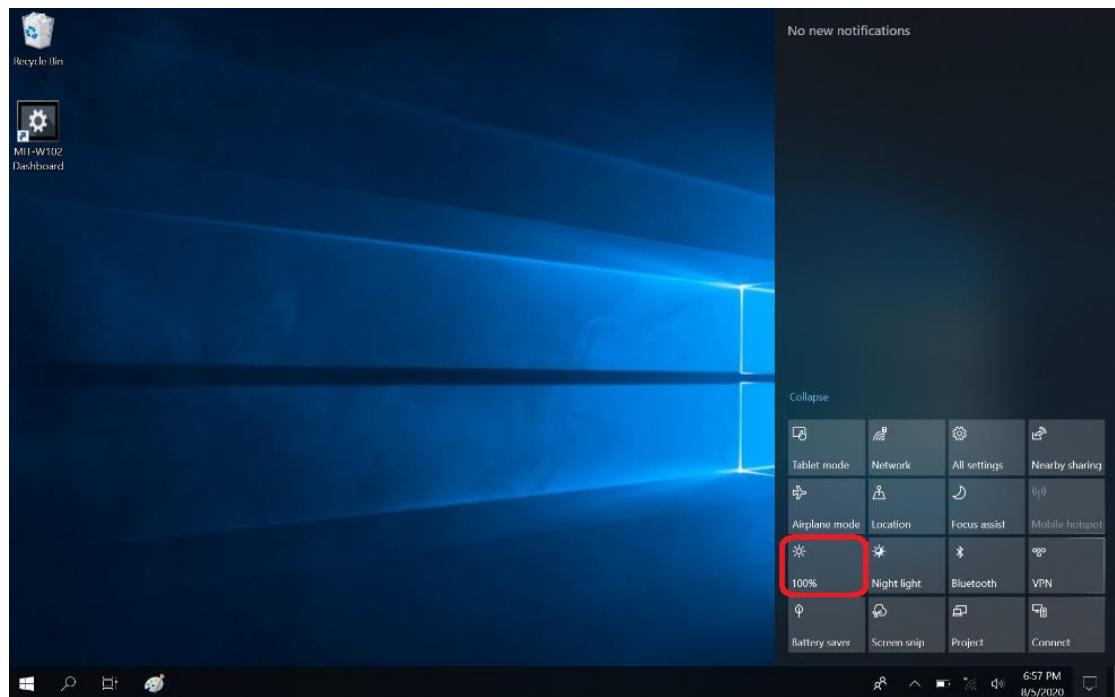


3.1.5 Adjusting Screen Brightness

1. Tap on the right end of the taskbar to open the Action Center



2. Tap Brightness icon to adjust the brightness.

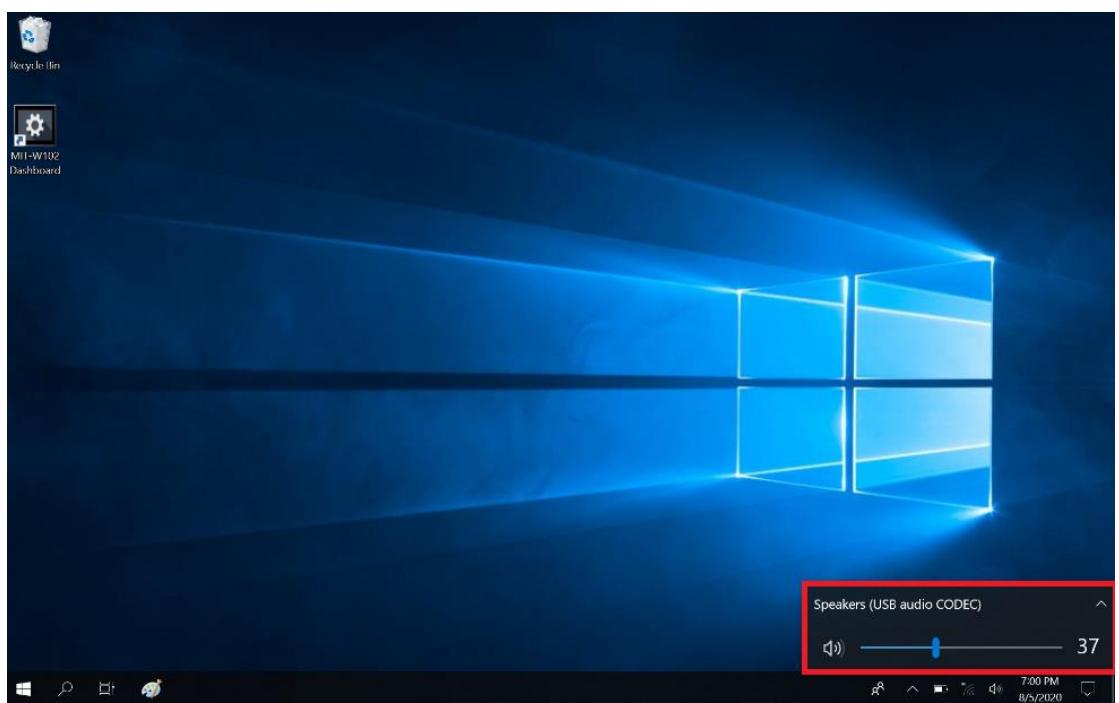


3.1.6 Adjusting the Volume

1. Tap the **Volume** icon on taskbar



2. Move the slide to adjust volume to tap the icon to mute



Chapter 4 Wireless Connections

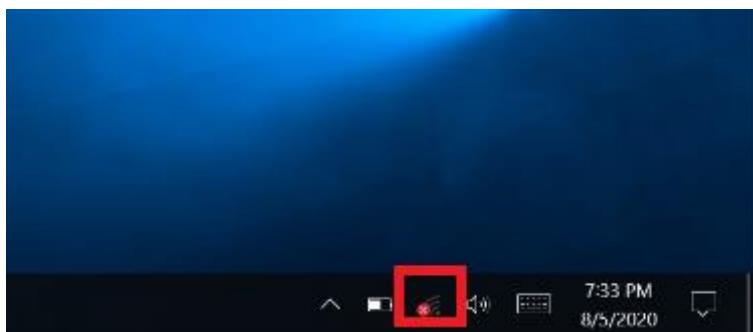
4.1 Wi-Fi Connection

	Wi-Fi access requires a separate purchase of a service contract with a wireless service provider. Contact a wireless service provider for more information.
-----------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------

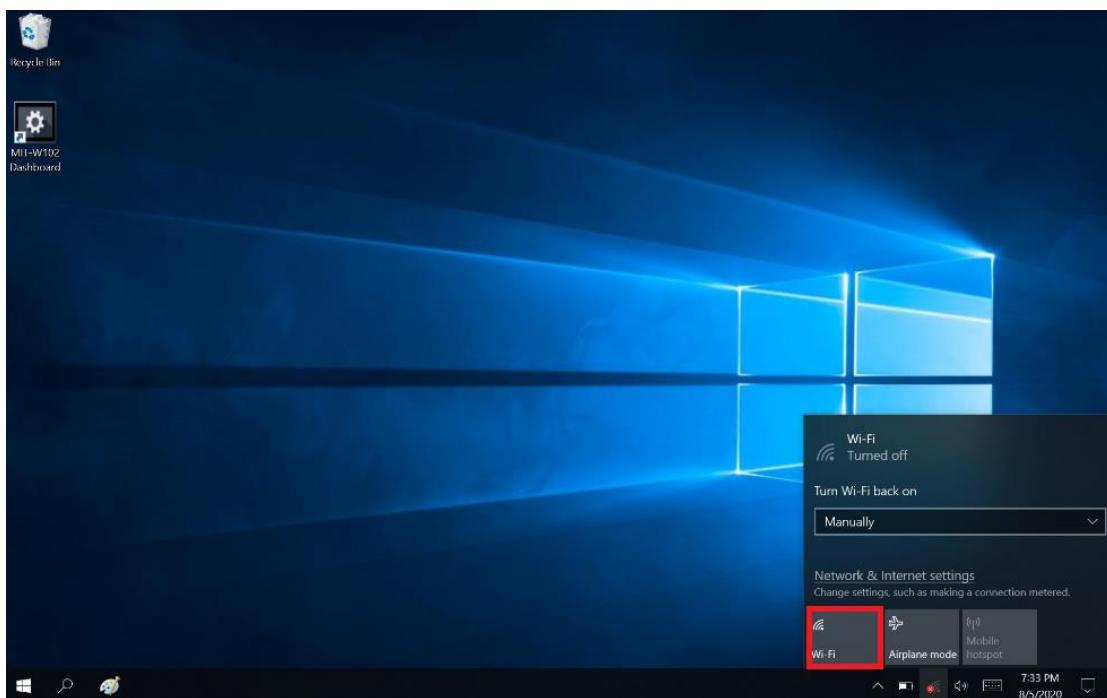
The MIT-W102 comes pre-loaded with WLAN module; you can send and receive signals to a Wi-Fi network then synchronize files.

A wireless network can be added either when the network is detected or by manually entering settings information. Before doing these steps, determine if authentication information is needed.

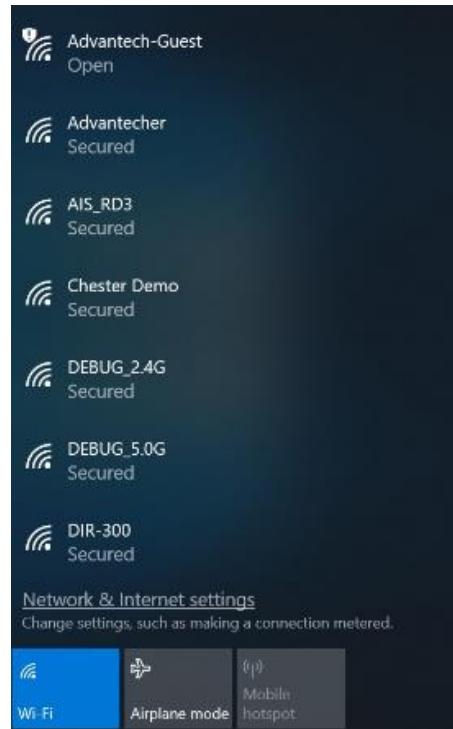
1. Click the wireless connection icon on the taskbar



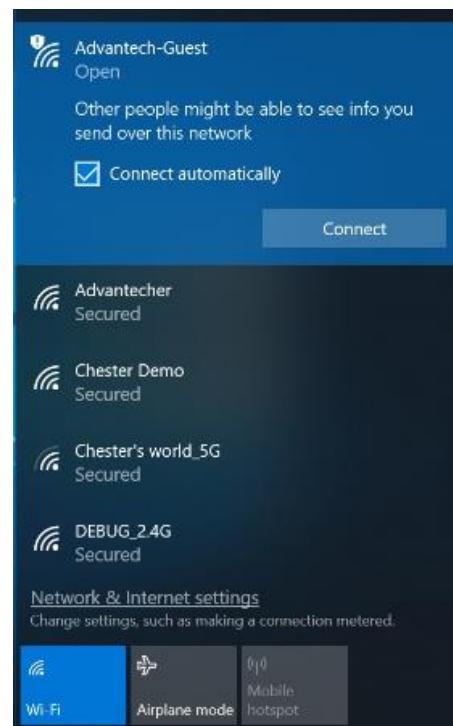
2. Turn on Wi-Fi by tapping the icon



3. Available wireless access points will be shown once Wi-Fi is enabled.



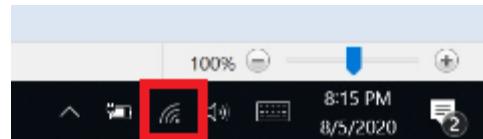
4. Select the access point to connect with.



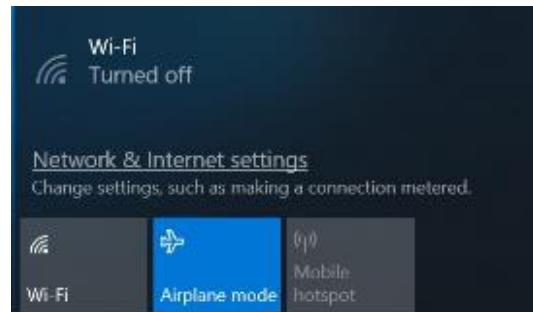
5. You may be prompted to enter a Security key for secure access.



6. The wireless connection is negotiated and the icon in the notification area shows a connected status whenever a wireless connection is present.



7. Airplane mode can be enabled to turn off Wi-Fi



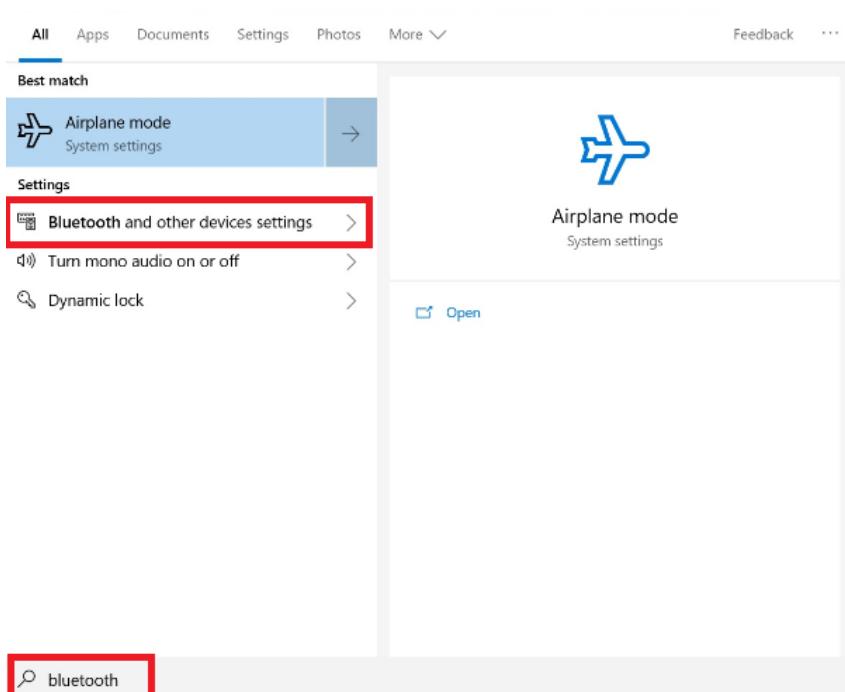
4.2 Bluetooth Connections

The MIT-W102 comes with built-in Bluetooth functionality that allows you to connect and communicate with other Bluetooth-enabled devices.

4.2.1 Setting Up Bluetooth

Follow these instructions to set up a Bluetooth connection.

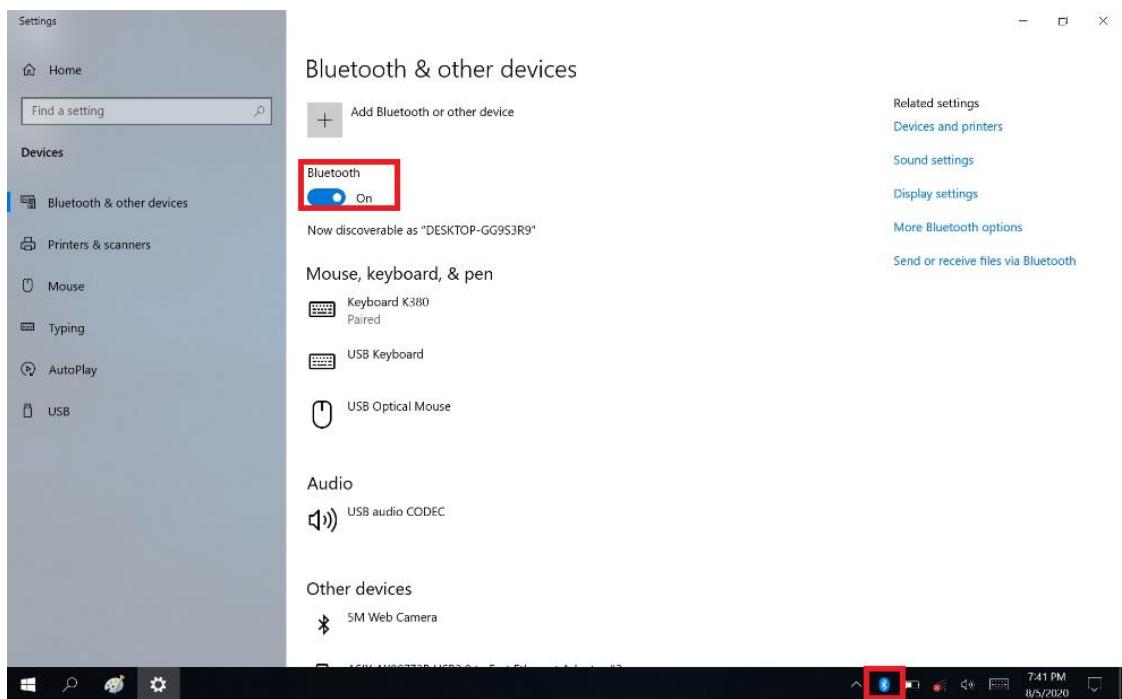
1. Type **Bluetooth** in Search and tap “Bluetooth and other devices settings”



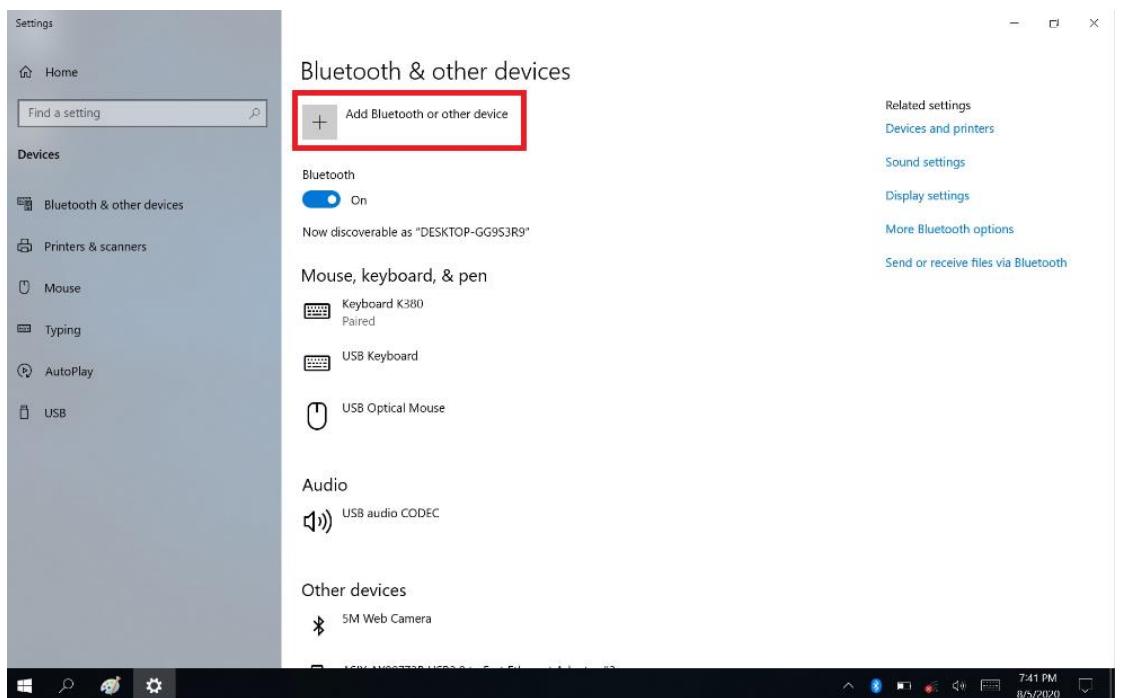
2. Slide the icon to enable Bluetooth



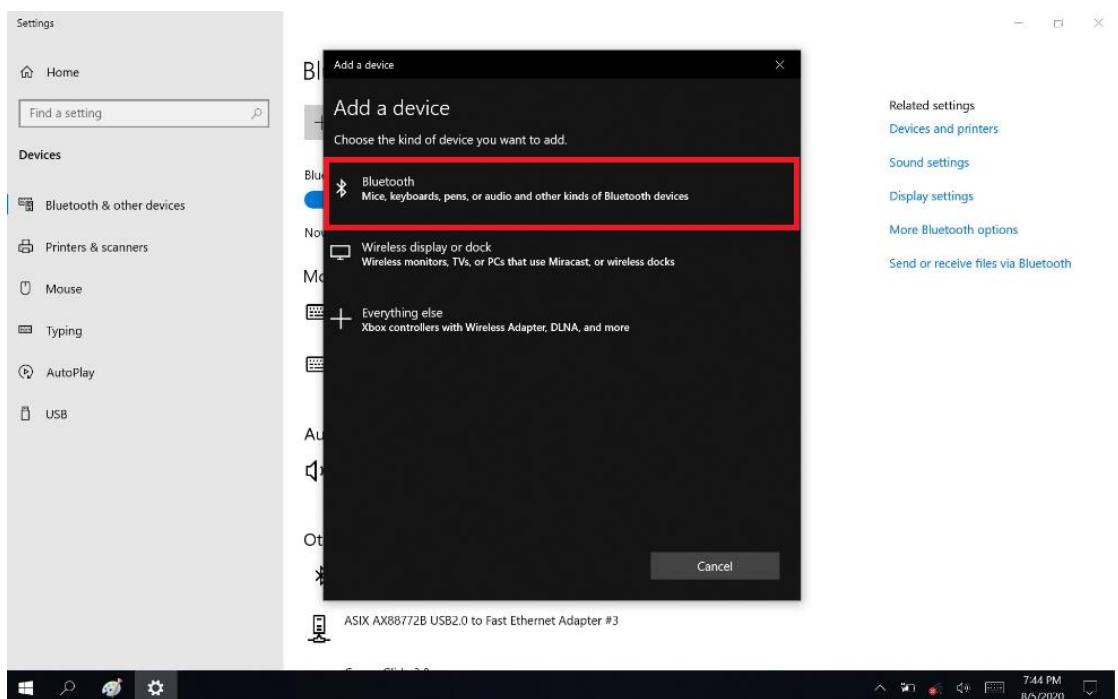
3. When enabled, Bluetooth icon will be shown on the taskbar



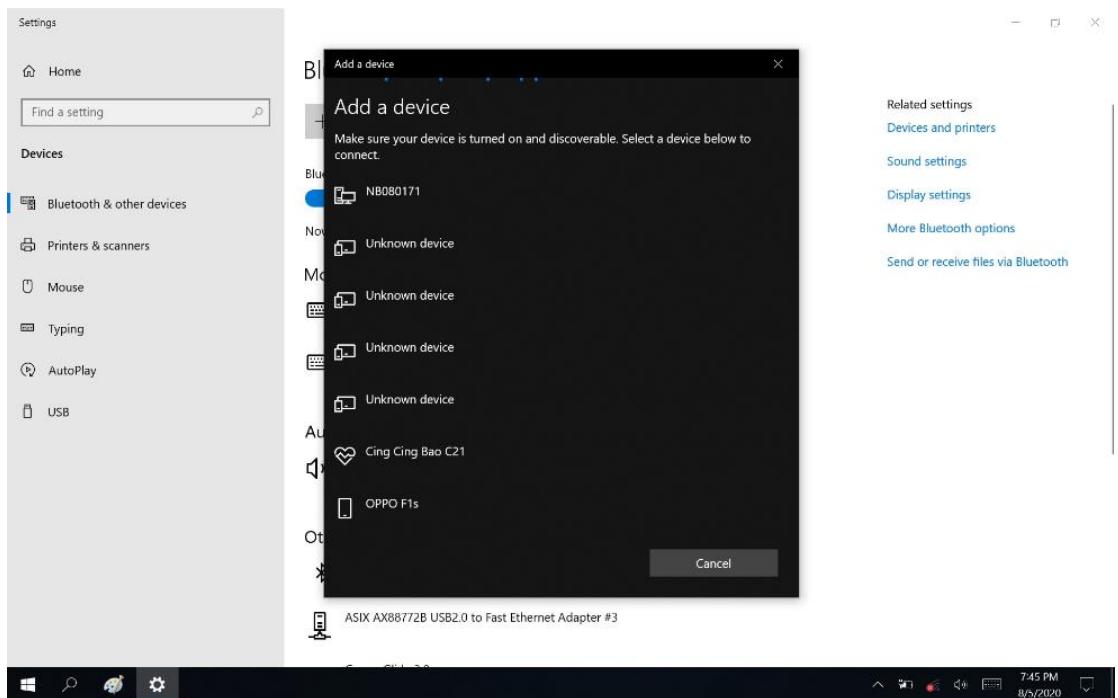
4. Add more Bluetooth device by clicking on the icon “+”



5. Select “Bluetooth”



6. Select the Bluetooth device to connect from the available device menu



7. Comparing MIT-W102 with the Bluetooth device with Pass Key Entered
8. The Bluetooth device is successfully connected with MIT-W102 when the process is completed.

	<p>It is recommended that you use a passkey to prevent unauthorized access to your MIT-W102.</p>
-----------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------

Chapter 5 Advance Setting

5.1 Checking Battery Status

As it is likely you will be using your MIT-W102 when out and about, it is important that you monitor the battery status regularly, to ensure you do not run out of power at a critical moment.

1. Tap on the **Power** icon on the taskbar to view detailed information and the battery screen appears.



Best performance - Favors performance over power

Best battery life - Saves energy by reducing MIT-W102's performance.

5.2 Maintenance

- If encounter any of system failure or serious incident in relation to device, please report to the manufacturer or local agent.

5.2.1 Maintaining the Battery

- Do not expose heat or attempt to disassemble the battery, and do not place the battery in water or in a fire.
- Do not subject the battery to strong impact, such as a blow from a hammer, or stepping on or dropping it.
- Do not puncture or disassemble the battery.
- Do not attempt to open or service the battery.
- Replace only with batteries designed specifically for this product.

- Keep the battery out of reach of children.
- Dispose of used batteries according to local regulations.

5.2.2 Maintaining the LCD Display

- Do not scratch the surface of the screen with any hard objects.
- Do not spray liquid directly on the screen or allow excess liquid to drip down inside the device.
- Do not place anything, such as food and drink, on the screen at any time to prevent damage to the screen.
- Clean the LCD display only with a soft cloth dampened with 60% above isopropyl alcohol or 60% above ethyl alcohol **each time after use.**

5.2.3 Cleaning the MIT-W102

1. Turn off the MIT-W102 and unplug the power cord.
2. Wipe the screen and exterior with a soft, damp cloth moistened only with water. Do not use liquid or aerosol cleaners on the screen, as these will discolor the finish and damage the screen.

5.3 Trouble Shooting

When System behaves abnormally, such as

1. Failure to power on.
2. Failure to power off.
3. Power on LED off but DC power plug in.
4. Any other LEDs ON but system cannot work.

Contact your distributor, sales representative, or Advantech's customer service center for technical support if you need additional assistance. Please have the following information ready before you call:

- Product name and serial number.
- Descriptions of your peripheral attachments.
- Descriptions of your software (operating system, version, application software, etc.)
- A complete description of the problem.
- The exact wording of any error messages.

- Symptoms, photo or video if available.

Guidance and manufacturer's declaration – electromagnetic emissions		
The model MIT-W102 SERIES is intended for use in the electromagnetic environment specified below. The customer or the user of the model MIT-W102 SERIES should assure that it is used in such an environment.		
Emissions test	Compliance	Electromagnetic environment – guidance
RF emissions CISPR 11		The model MIT-W102 SERIES uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11		The model MIT-W102 SERIES is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2		
Voltage fluctuations/ flicker emissions IEC 61000-3-3		

Recommended separation distances between portable and mobile RF communications equipment and the model MIT-W102 Series			
Rated maximum output power of transmitter W	Separation distance according to frequency of transmitter m		
	150 kHz to 80 MHz $d = 1,2 \sqrt{P}$	80 MHz to 800 MHz $d = 1,2 \sqrt{P}$	800 MHz to 2,5 GHz $d = 2,3 \sqrt{P}$
0,01	0,12	0,12	0,23
0,1	0,38	0,38	0,73
1	1,2	1,2	2,3

10	3,8	3,8	7,3
100	12	12	23
For transmitters rated at a maximum output power not listed above, the recommended separation distance d in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.			
NOTE 1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.			
NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.			

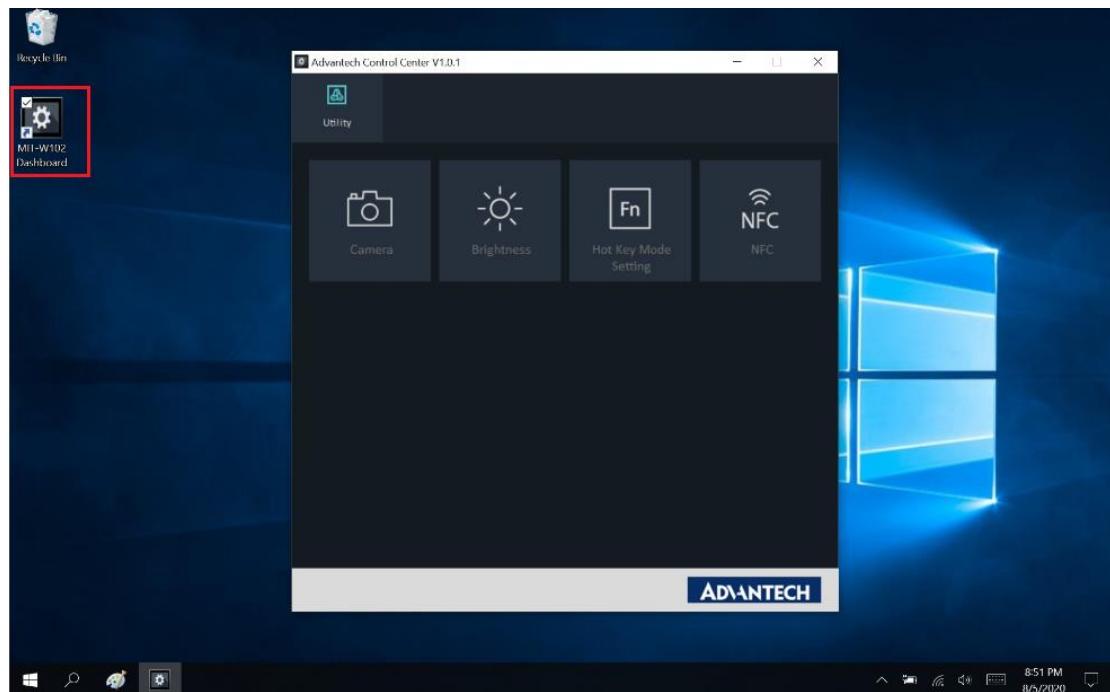
Guidance and manufacturer's declaration – electromagnetic immunity			
The model MIT-W102 SERIES is intended for use in the electromagnetic environment specified below. The customer or the user of the model MIT-W102 SERIES should assure that it is used in such an environment.			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment – guidance
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz	Vrms	Portable and mobile RF communications equipment should be used no closer to any part of the model MIT-W102 SERIES, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.
Radiated RF IEC 61000-4-3	to 80 MHz 3 V/m 80 MHz to 2,5 GHz	V/m	<p>Recommended separation distance</p> $d = 1,2 \sqrt{P}$ $d = 1,2 \sqrt{P} \quad 80 \text{ MHz to } 800 \text{ MHz}$ $d = 2,3 \sqrt{P} \quad 800 \text{ MHz to } 2,5 \text{ GHz}$ <p>where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m).</p>

		<p>Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, ^a should be less than the compliance level in each frequency range. ^b</p> <p>Interference may occur in the vicinity of equipment marked with the following symbol:</p> 
		<p>NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies.</p> <p>NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.</p>
		<p>^a Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the model MIT-W102 SERIES is used exceeds the applicable RF compliance level above, the model MIT-W102 SERIES should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the model MIT-W102 SERIES.</p> <p>^b Over the frequency range 150 kHz to 80 MHz, field strengths should be less than V/m.</p>

Chapter 6 Dashboard and Hotkey setting

6.1 Dashboard

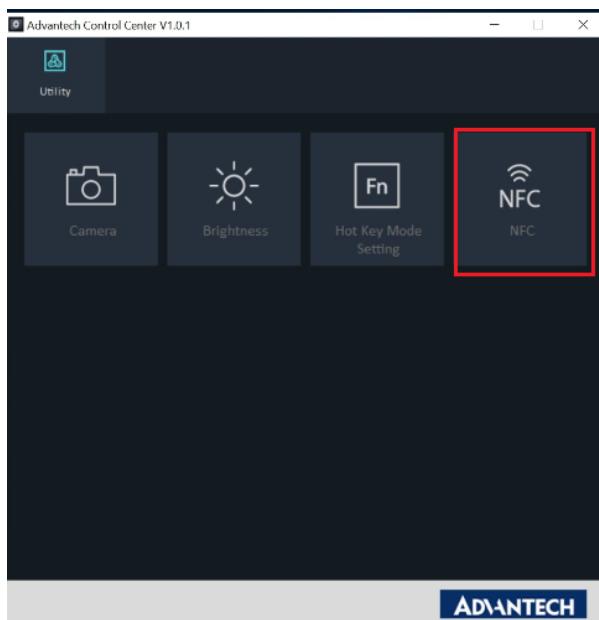
Click on the shortcut to launch the dashboard



6.2 NFC

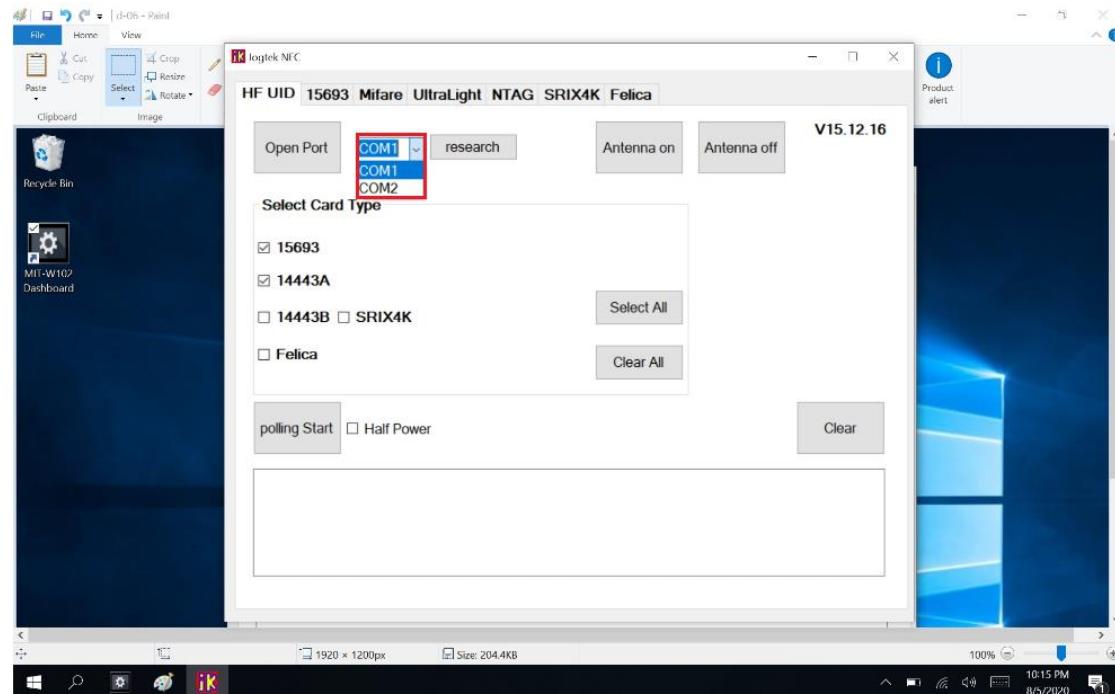
6.2.1 NFC application

Click NFC icon to launch the application

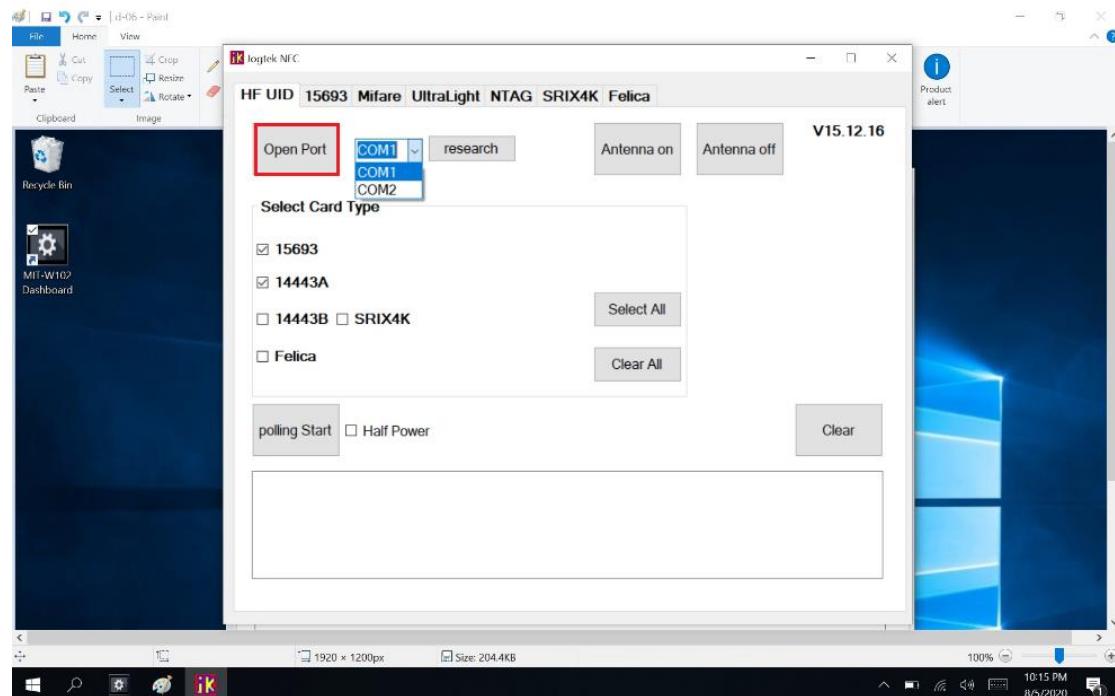


6.2.2 NFC Setting

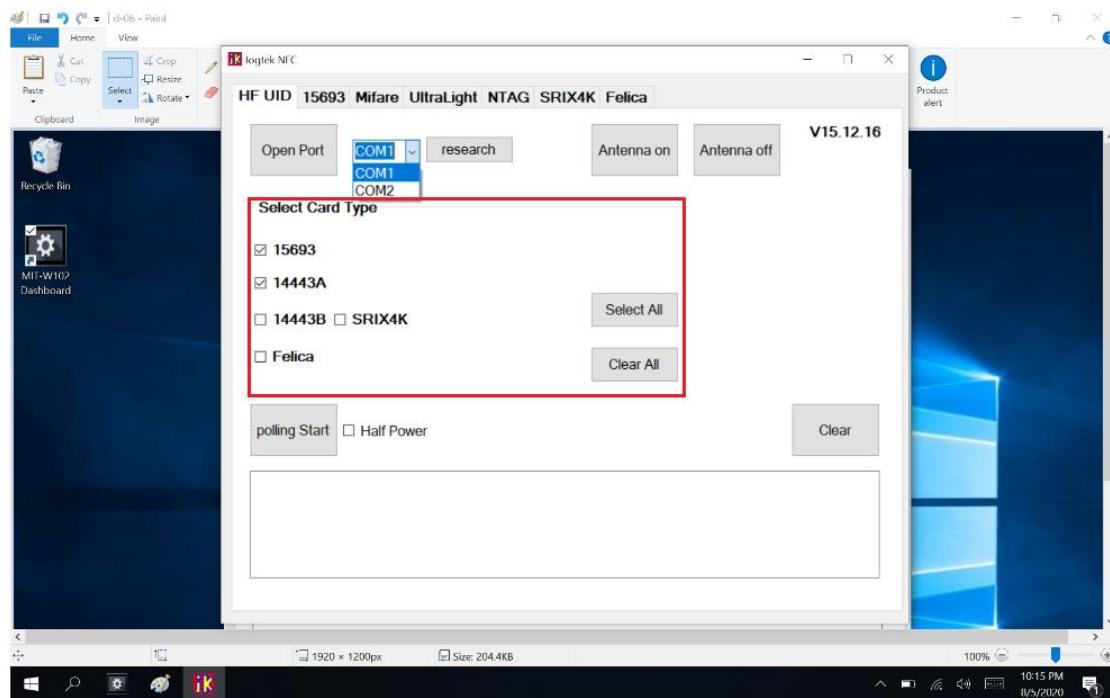
(1) Select COM port number 2



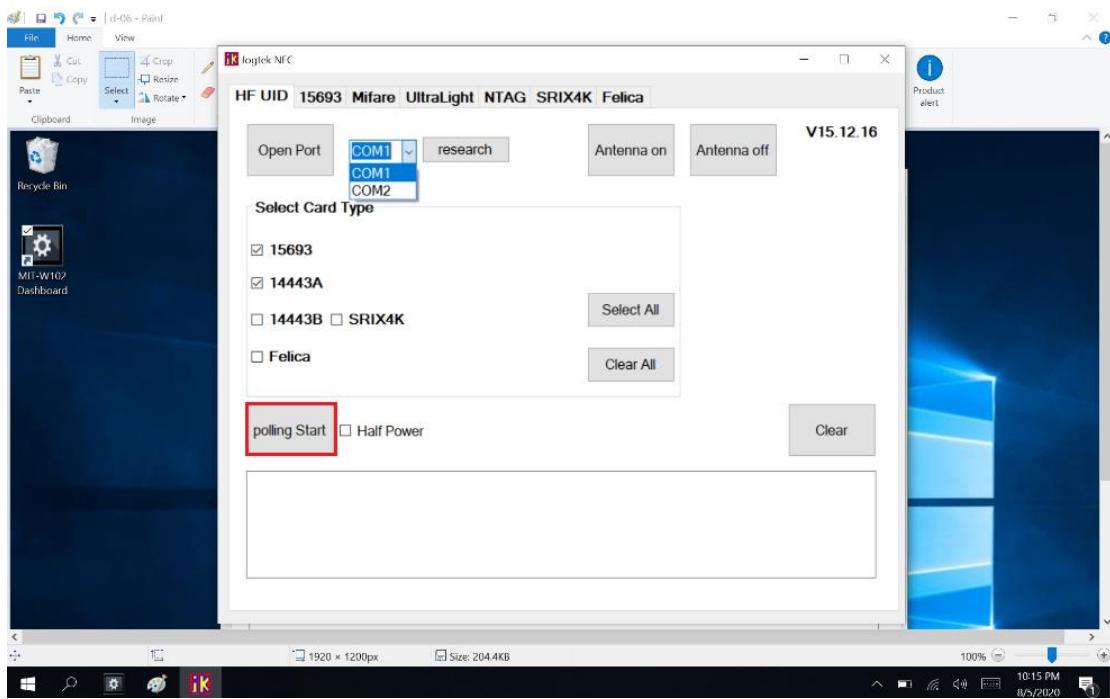
(2) Open Port



(3) Select Card Type

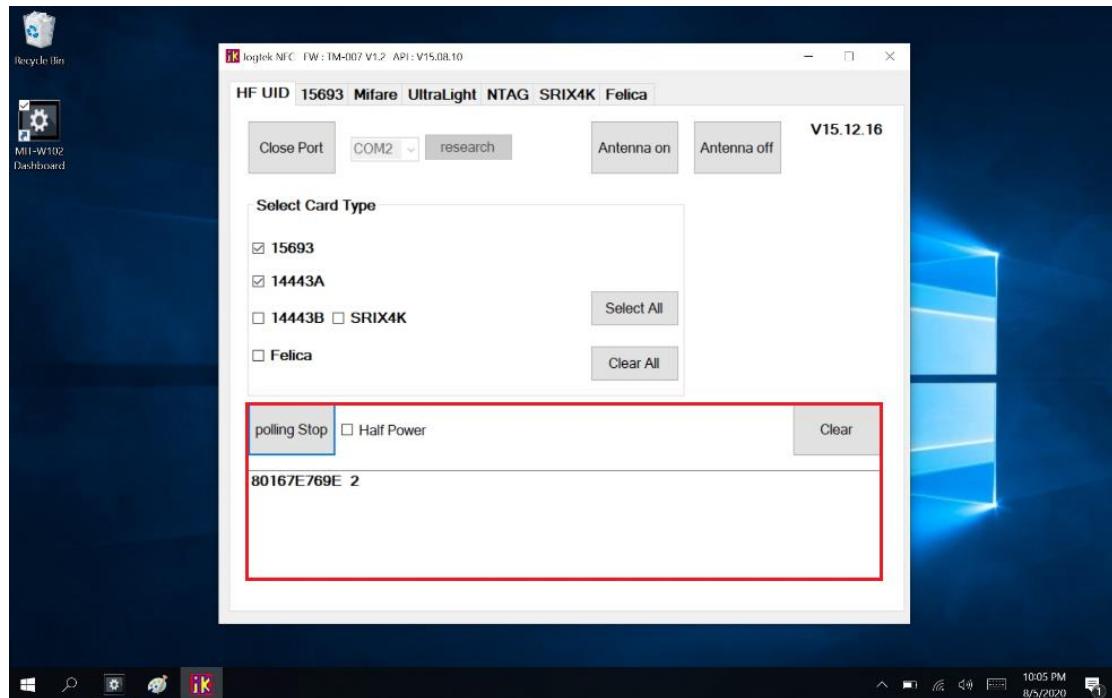


(4) Polling Start



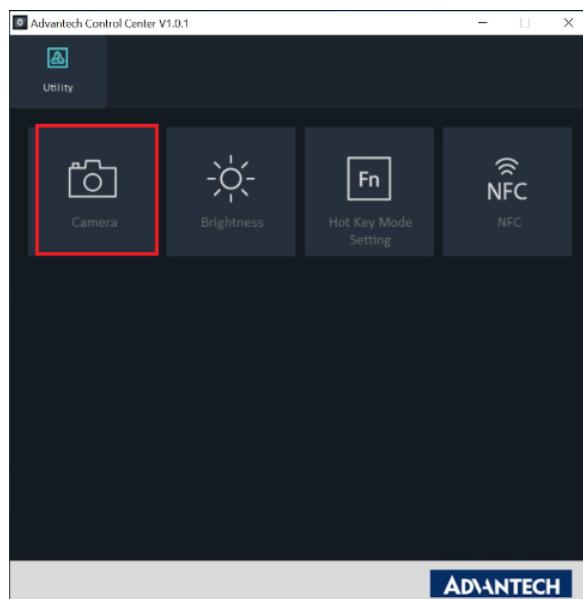
6.2.3 NFC Usage

NFC card can be detected when approaching the right hand side of the device

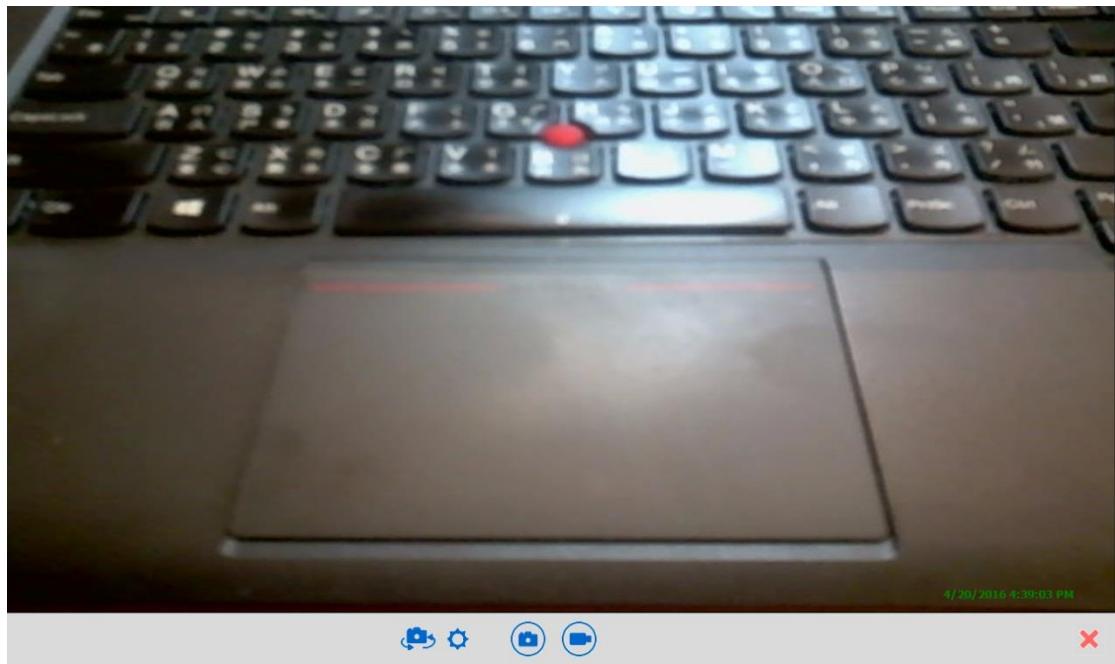


6.3 Camera

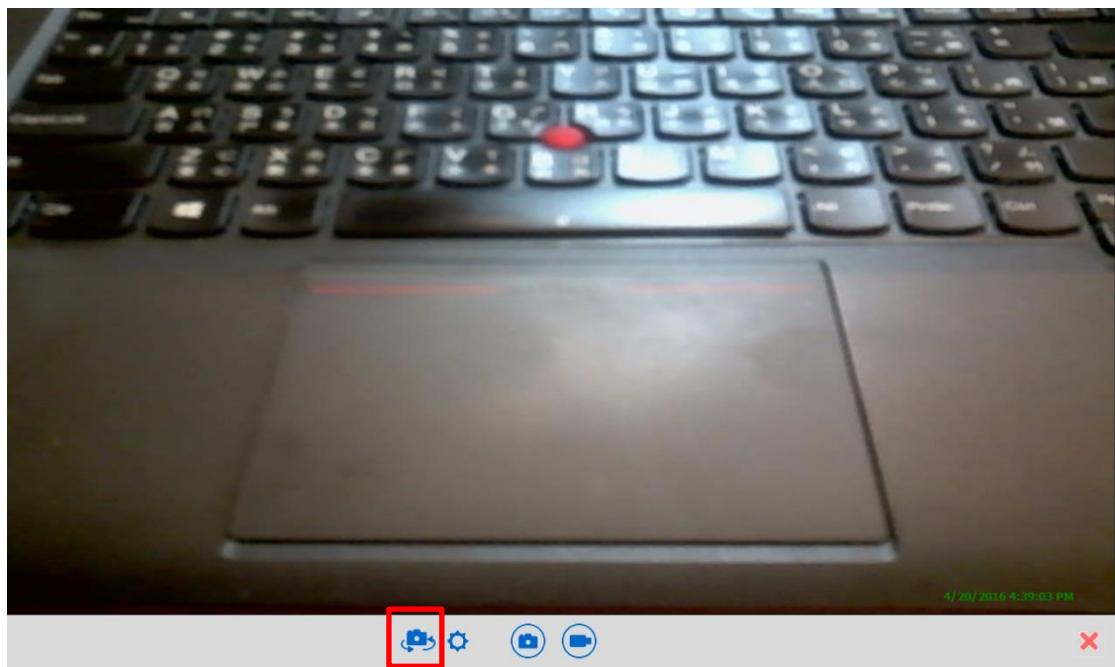
(1) Click Camera icon



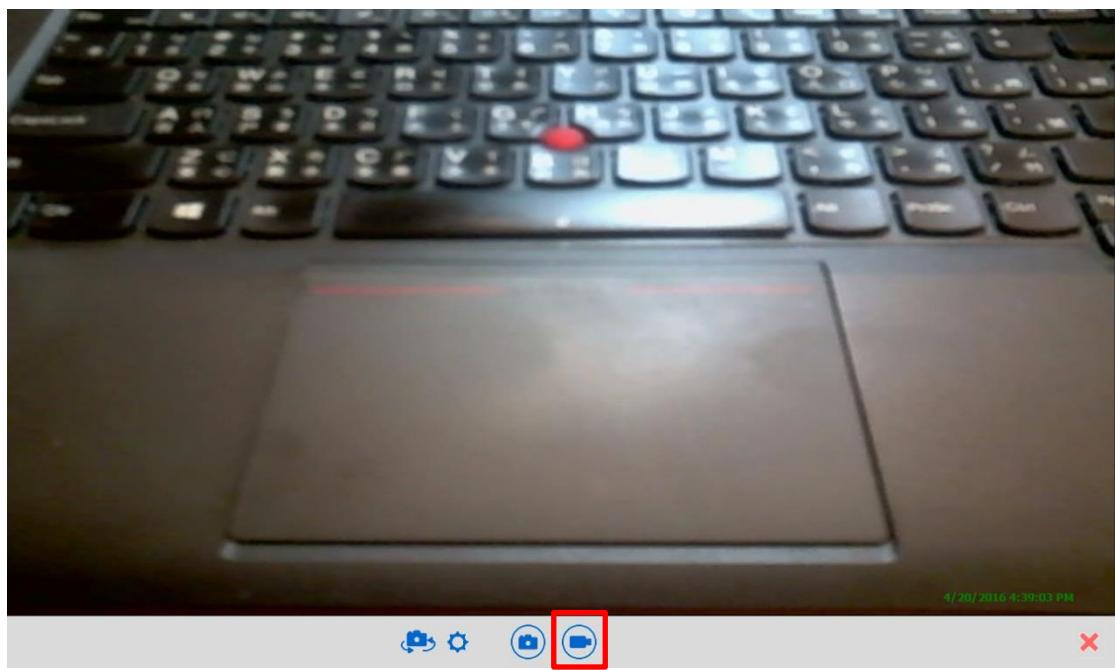
(2) Default Rear Camera mode on the UI



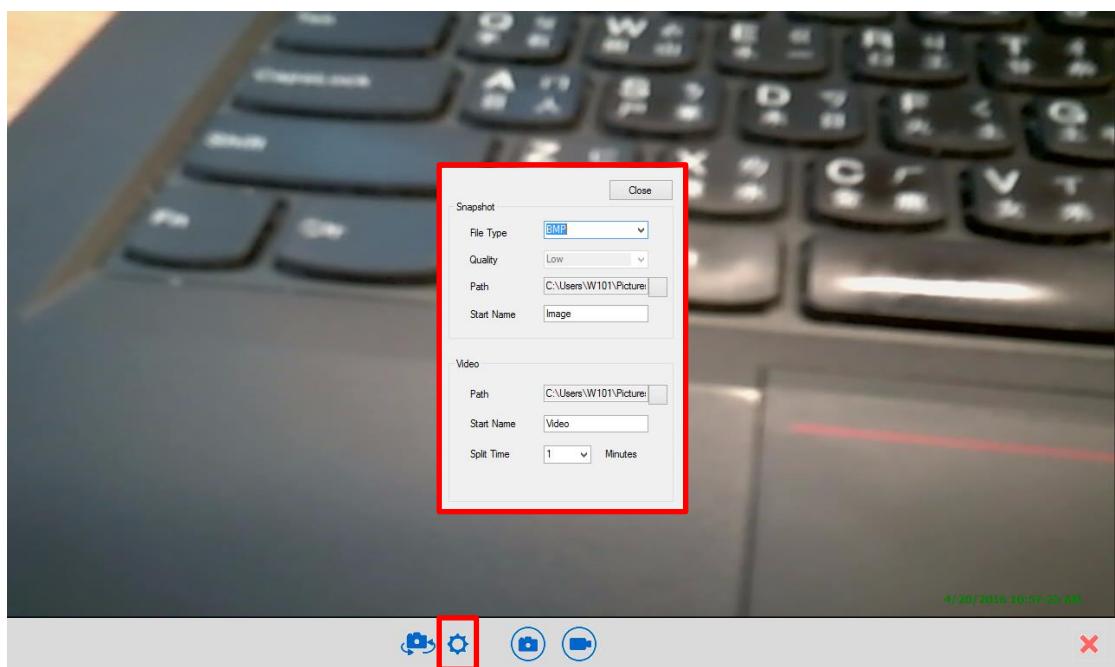
(3) Switch Front / Rear Camera (Click camera icon to switch camera)



(4) Video Recording . Click video icon

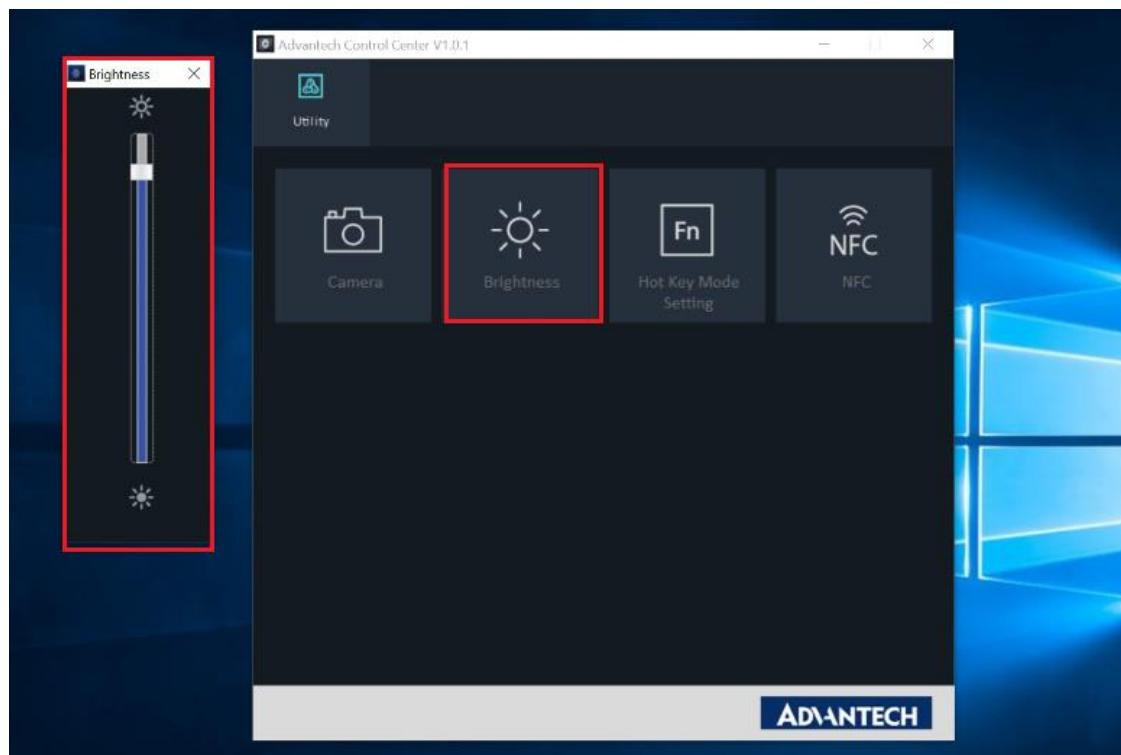


(5) Click setting icon to change file name and path.



6.4 Brightness

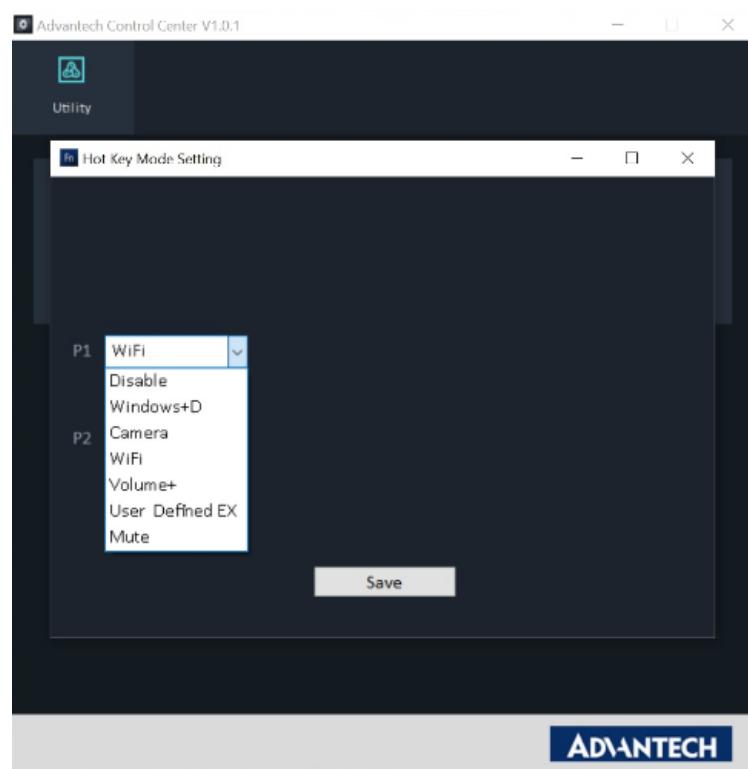
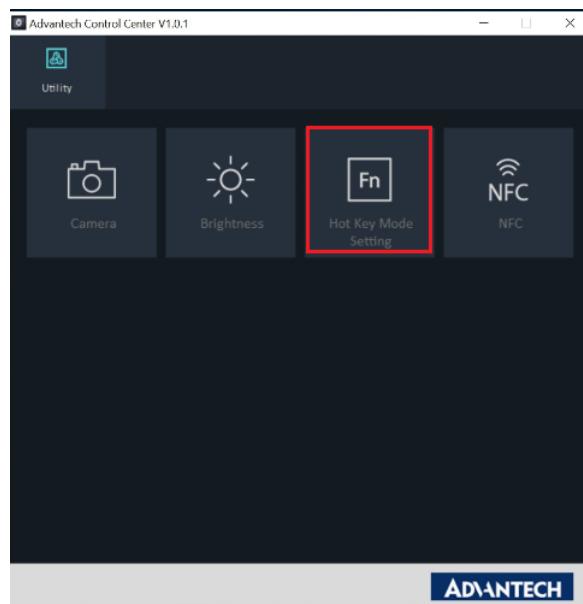
Click Brightness icon to adjust brightness



6.5 Hotkey Setting

Click Hot Key Mode Setting and select function.

E.g.: Set P1 key as WiFi ON / OFF key.



Appendix Specifications

A.1 Specifications

Feature	Description
Operating System	Microsoft Windows 10 IoT Enterprise LTSC
Processor	Intel® Pentium® Processor N4200
Max. speed	Quad Core 1.1GHz (Burst Frequency : 2.5GHz)
Memory	LPDDR4 1600MHz 4GB on board memory
Storage	1 x m.2 SSD (Default 64GB / supports up to 128GB)
Display	10.1" WUXGA TFT LCD
Touch Panel	P-CAP Multiple Touch
Application Button	One Power button Two Function programmable buttons for quick selection of applications
Communication	802.11a/b/g/n/ac WLAN built-in with integrated antenna Bluetooth V5.0, V4.2, V4.1, V4.0 LE, V3.0+HS, Bluetooth V2.1+EDR system built-in with integrated antenna
Camera	2.0M Fixed Focus Camera at front 5.0M Auto Focus Camera with Flash LED at rear
Main Battery	Rechargeable Li-ion battery (Advantech MIT101-BATC) Standard battery, 11.1V, 2860 mAh, 3S2P
Medical Power Adapter	AC Adapter: AC 100V-250V 50/60Hz, 1.5A(max) Output : 19Vdc/3.15A(max)/60W, Auto Sensing/Switching worldwide power supply

Feature	Description
Security	1. Password security 2. TPM 2.0
I/O Ports	One USB 3.0/ 2.0 One USB 2.0 One HP/MIC combined jack One Micro HDMI type D One DC-in jack One Expansion port 8-pin One Docking port 32-pin
Audio Output	One 1 watt speaker
Physical	295 x 196 x 20mm Approx. 1.1Kg (base configuration); approx. 2.43lbs
Environment	Operational altitude: 3000 meters (700-1060hPa) Storage/Transportation altitude: 5000 meters (500-1060hPa) Operating Temperature: 0°C to 35°C Storage/Transportation Temperature -20°C to 60°C Operating Humidity 10% ~ 95% @35C non-condensing Storage and Transportation Humidity 10%~95% @60C non-condensing 4ft drop onto concrete

Feature	Description
Certification	FCC Class B, CE, CB, UL
Optional Device / Accessories	Office Docking Station (Optional) VESA Docking Station (Optional) Adjustable Stand (Optional) Rubber Bumper (Optional)

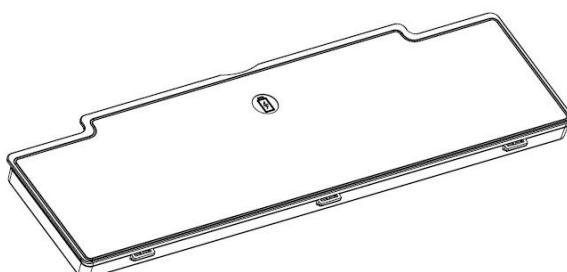
LED Status

DUT on/off	AC adapter in	Internal Battery	Green LED	Amber LED	Remark
Off	X	X	Off	Off	System Off
Off	V	V	Off	On	Battery is charging
Off	V	V	On	Off	Battery is fully charged (100%)
On	V	V	Off	On	Battery is charging
On	V	V	On	Off	Battery is fully charged (100%)
On	V	V	Off	On	Battery Low (< 10 %)

A.2 Optional Accessories

A.2.1 External Battery

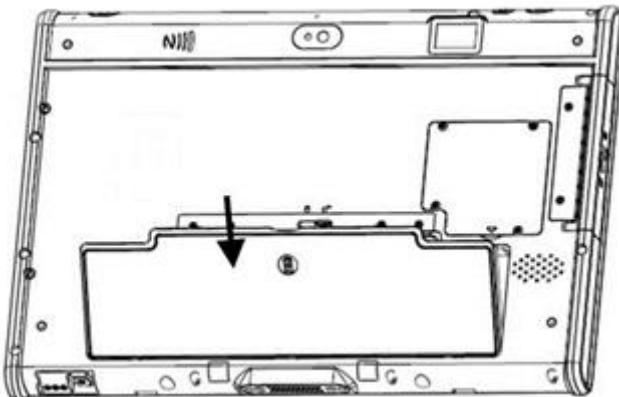
You can use an external battery to extend the power of your MIT-W102.



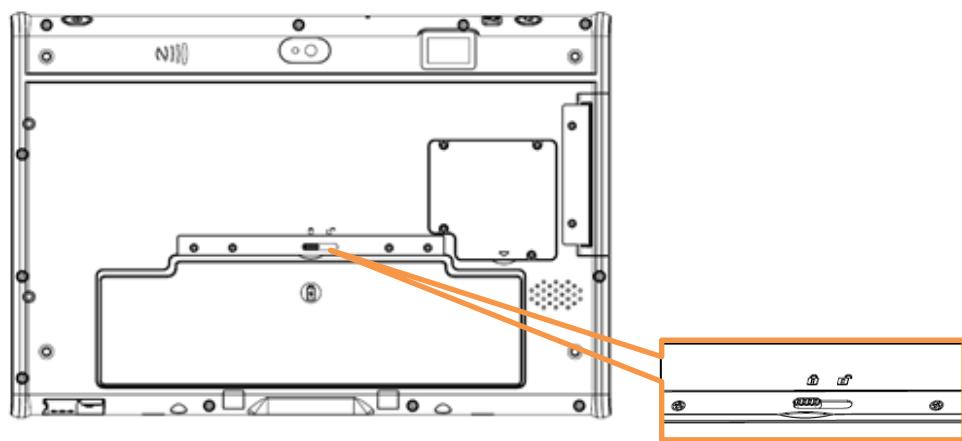
Battery specification: 2860 mAh, 11.1V

A.2.1.2 Installing the External Battery

1. Align and insert the battery on the MIT-W102.



2. Lock to secure the battery once it is properly to be inserted.

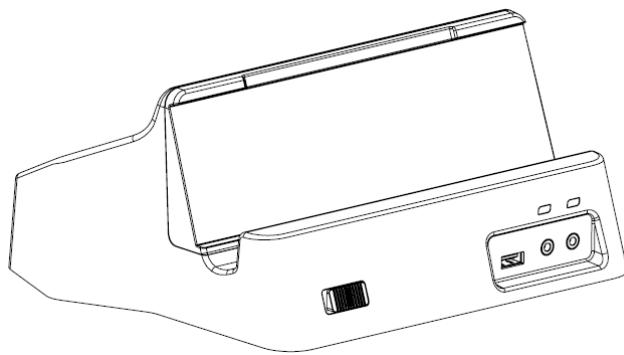


A.2.1.2 Removing the External Battery

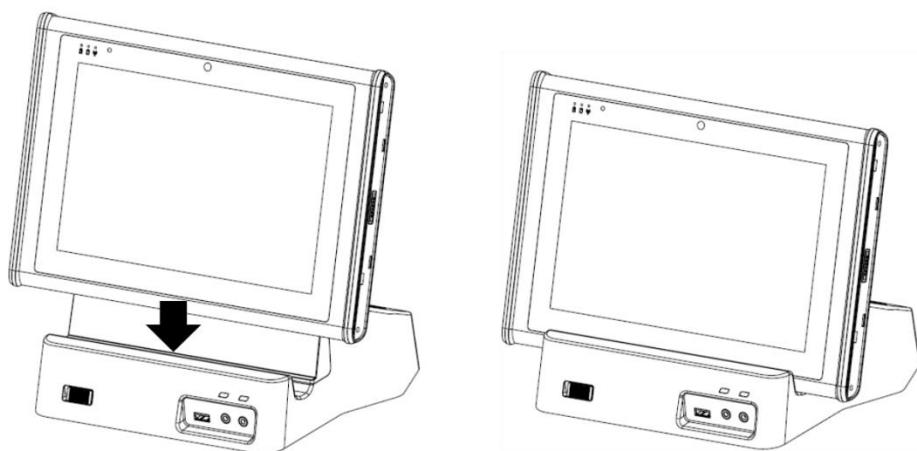
Repeat the above steps in reverse order to remove the battery.

A.2.2 Office Docking Station

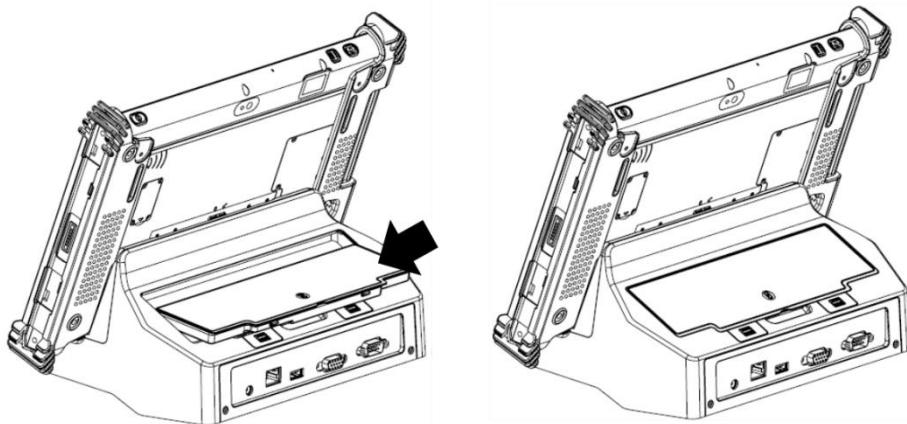
You can use the office docking stand to dock the MIT-M101 when you are at your home or on your office desk. When docked, you can charge both the internal and external batteries or transfer data from your MIT-M101 to another PC.



Attach the MIT-M101 to the docking stand as shown.



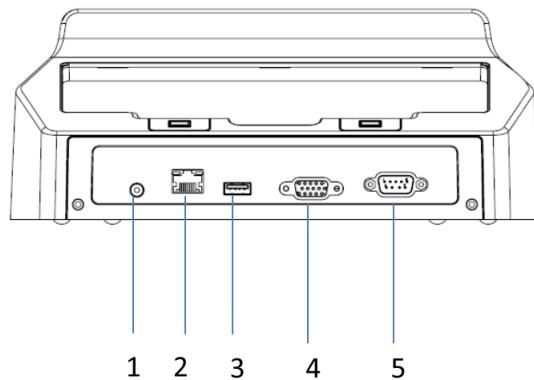
To charge the external battery, attach the battery to the docking stand as shown below.



The external battery can also be charged when installed on the MIT-M101.

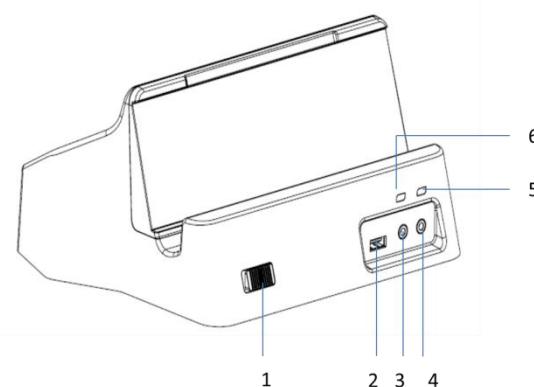
A.2.2.1 Docking Connectors

See below for the rear view of the docking and a description of all ports and connectors.



No.	Component	Function
1	Power jack	Connect an RJ-45 cable to access LAN connection.
2	LAN port	Connect a serial cable to connect to another PC.
3	USB port	Connect USB connectors to transfer data.
4	VGA port	Connect the AC adapter to charge the battery.
5	COM port	Connect two devices (Input / Output).

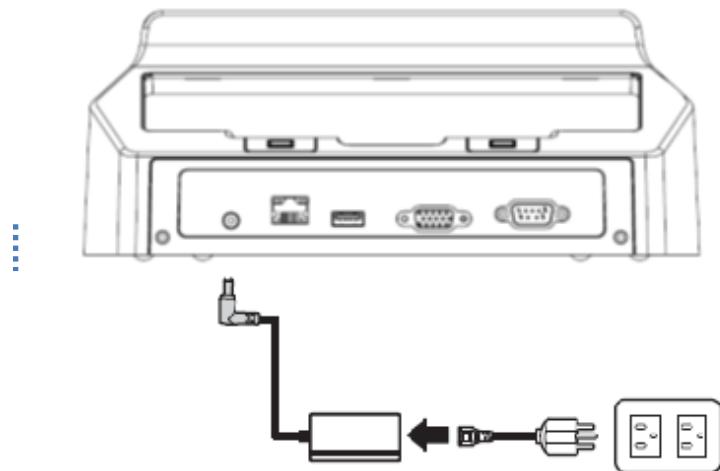
See below for the front view of the docking and a description of all ports and connectors.



No.	Function
1	Lock mechanism (quick load/unload)
2	USB port
3	Microphone jack
4	Headphone jack (Earphone Jack)
5	Dock detection LED
6	Battery bay status LED

A.2.2.2 Connecting Power to the Docking

Connect the AC power adapter to the docking and the mains as shown below.



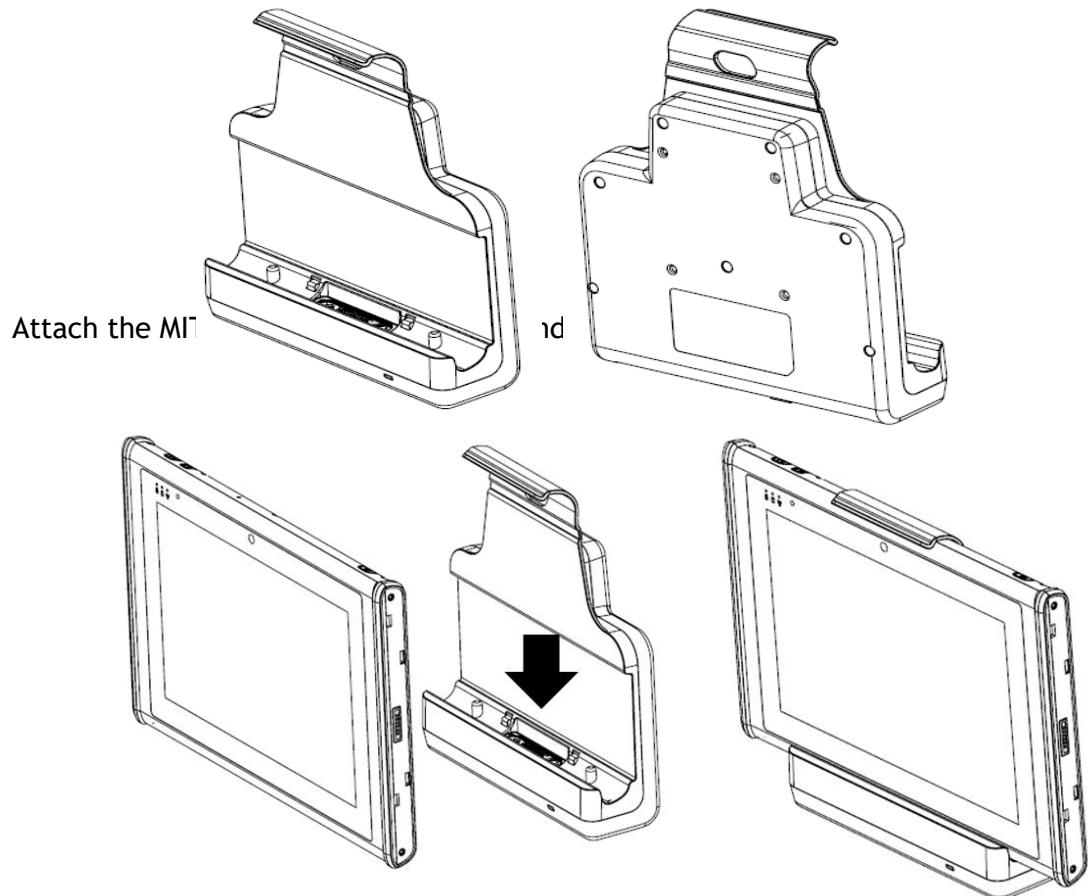
A.2.2.3 Docking Specifications

Feature Description

Feature	Description
Product Name	MIT-W102 Docking Station
Model Number	MIT-W102-ACCDS
External I/O Interfaces	One LAN port One COM port One VGA port Two USB 2.0 host connectors One DC-in
Power	AC Adapter: AC 100V-250V 50/60Hz, 1.5A(max) Output : 19Vdc/3.15A(max)/60W
Physical Size	224.7 (H) x 200 (W) x 56.4 (D) mm

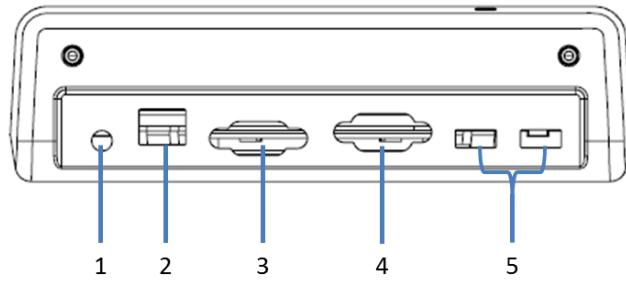
A.2.3 VESA Docking Station

You can use the VESA docking station to dock the MIT-W102 to the place where you need via standard 75 x 75 mm VESA hole on rear side. When docked, you can transfer data from your MIT-W102 to another PC by COM port or USB port.



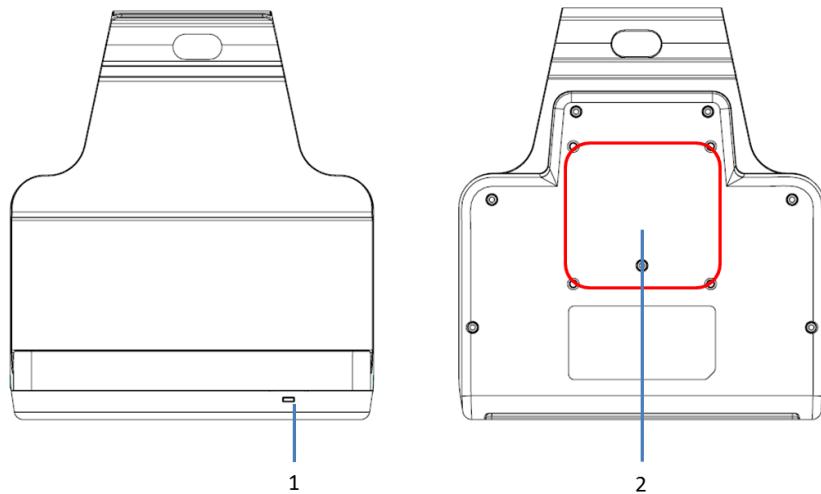
A.2.3.1 Docking Connectors

See below for the rear view of the docking and a description of all ports and connectors.



No.	Component	Function
1	Power jack	Connect the AC adapter to provide power.
2	LAN port	Connect an RJ-45 cable to access LAN connection.
3	VGA port	Connect to display for 2 nd display output
4	COM port	Connect a serial cable to connect to another PC.
5	USB port	USB 2.0 port x 2 , Connect USB connectors to transfer data.

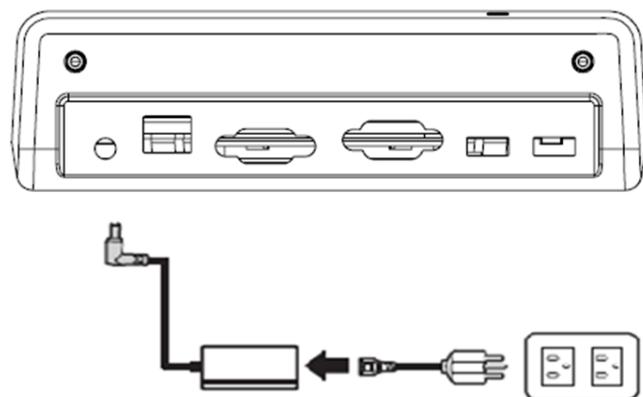
See below for the front view of the docking and a description of all ports and connectors.



No.	Function
1	LED indication / Device connected
2	Standard 75x75 VESA hole

A.2.3.2 Connecting Power to the Docking

Connect the AC power adapter to the docking and the mains as shown below.



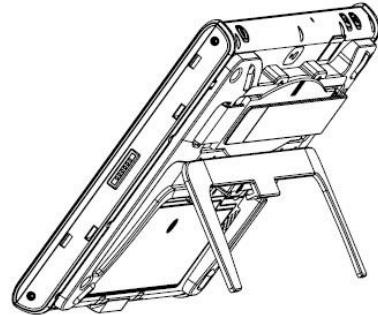
A.2.3.3 Docking Specifications

Feature Description

Feature	Description
Product Name	MIT-W102 VESA Docking
Model Number	MIT-W102-ACCV
External I/O Interfaces	One LAN port One COM port One VGA port Two USB 2.0 host connectors One DC-in
Power	AC Adapter: AC 100V-250V 50/60Hz,1.5A(max) Output : 19Vdc/3.15A(max)/60W
Physical Size	224.7 (H) x 200 (W) x 56.4 (D) mm

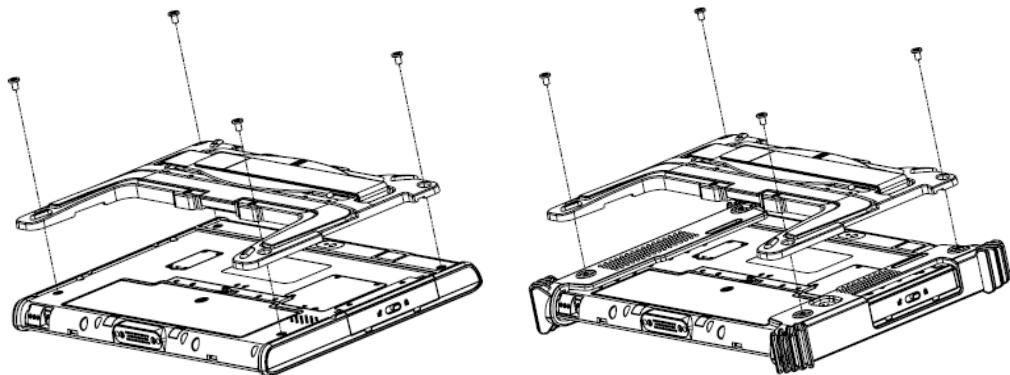
A.2.4 Adjustable Stand (with the hand strap)

You can use the adjustable stand to provide desk support when you are at home or in your office.

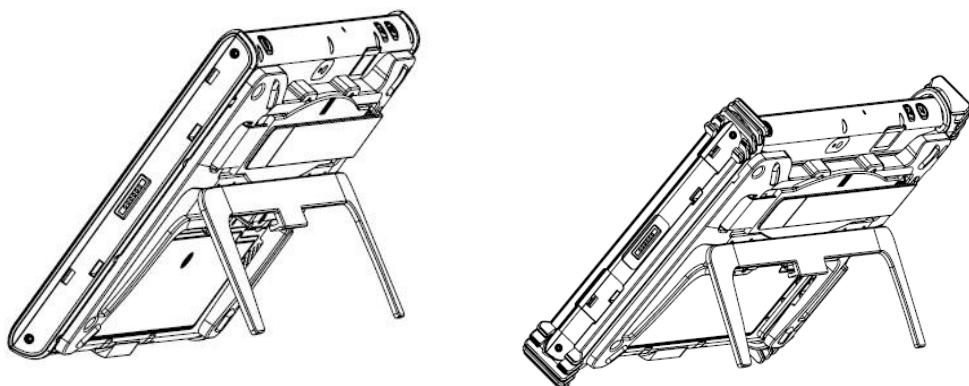


A.2.4.1 Attaching the Adjustable Stand

1. Fasten four screws to attach the 3-in-1 multi-functional back cover to your MIT-M101 with or without rubber bumpers attached to the tablet.

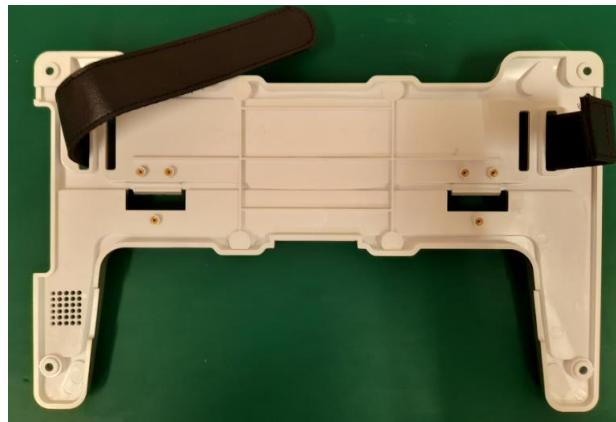


2. Pull to adjust the stand to desirable angle.



A.2.4.2 How to install the hand strap on the stand

1. Pass the end of the hand strap through the outer hole on each side of the stand



2. Pass the end of the hand strap through the inner hole on each side of the stand and stick the hand strap together



3. Check if the length of the hard strap is OK.

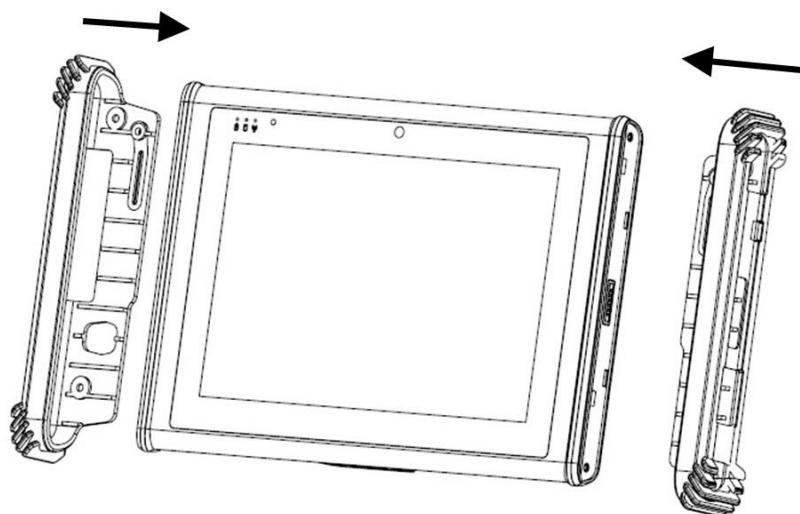


A.2.5 Rubber Bumper

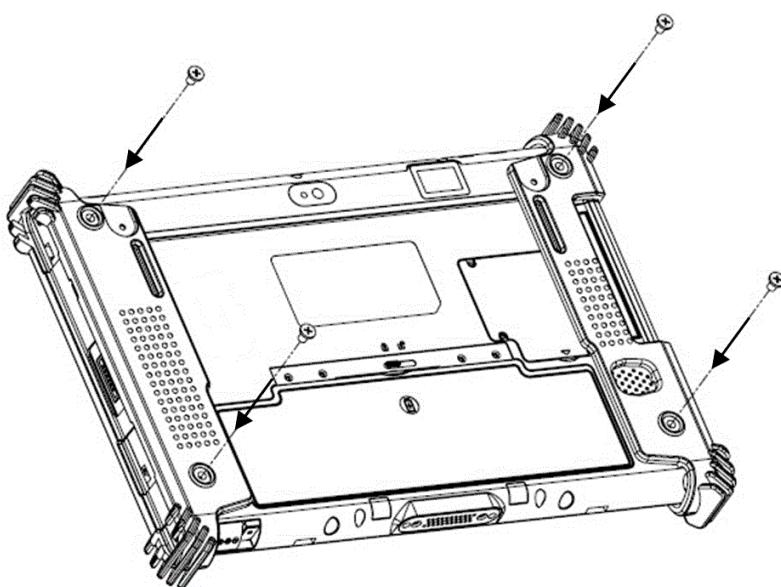
A.2.5.1 Installing the Rubber Bumpers

To protect the housing case of MIT-W102, install the rubber bumpers.

1. Install the rubber bumpers on the left and right side of the MIT-W102.
2. Make sure the rubber bumpers are aligned and locked on the indents.



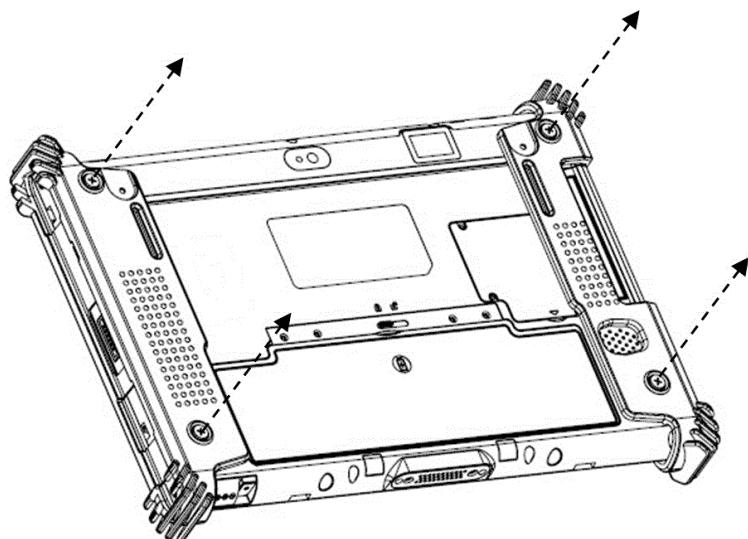
3. Screw the rubber bumpers on left and right properly into the MIT-W102.



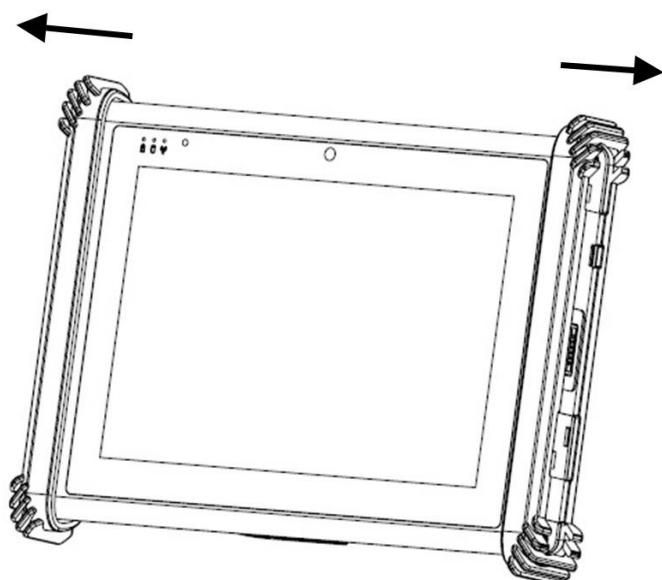
 Note	The Rubber bumper could provide well drop protection when device fall from high place. Please assure the rubber was put on the right position and the screws was fastened when install the bumper on device.
-------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

A.2.5.2 Removing the Rubber Bumpers

1. Unscrew the rubber bumpers from the rear of the tablet PC.



2. Remove the rubber bumpers on the left and right.



A.3 Installing SSD

Inserting SSD

You can insert an SSD to store data, which needs to be later transferred to another machine, or to simply expand the storage capacity of the MIT-W102.

1. Open the SSD card compartment cover.



2. Insert the SSD, facing upwards, until it clicks into place. Screw and fix SSD



3. Screw and fix the shielding case.



4. Close the SSD compartment cover.



Removing SSD

1. Open the SSD compartment cover.



2. Unscrew and remove the shielding case



3. Unscrew and remove SSD from the slot.



4. Close and screw the SSD card compartment cover.

