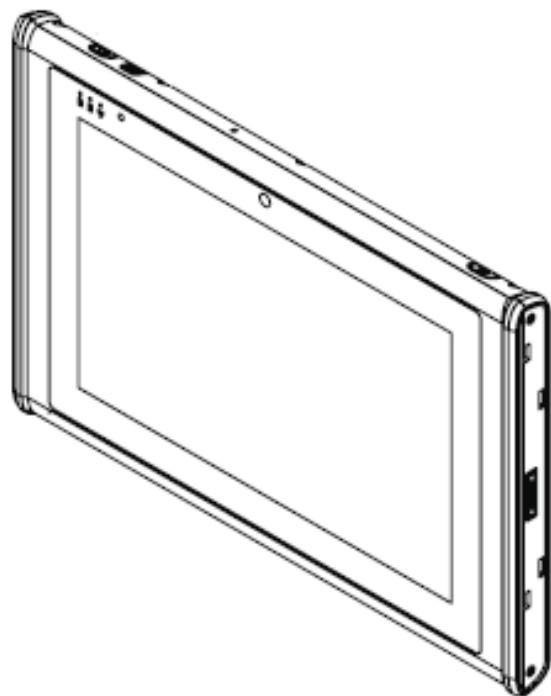


# Computer

## MIT-W101



## User Manual

Ver 0.1

## Copyright

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## Acknowledgements

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

# Declaration of Conformity

## CE Conformity Statement

Radio products with the CE alert marking comply with the R&TTE Directive (1999/5/EC) 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](#)
- [EN 301 489 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;
2. This device must accept any interference received, including interference that may cause undesired operation.

The device is designed to meet the requirements for exposure to radio waves established by the Federal Communications Commission (U.S.A.).

These requirements set a SAR limit of 1.6W/kg, averaged over one gram of tissue.

The FCC highest SAR values reported under this standard during Product certification for use at the body is 1.193 W/kg.

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. 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 and correct the interference by one or more of the following measures:

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 computer technician for help

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

## 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-W101 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

## 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. Keep this equipment away from humidity.
5. Put this equipment on a reliable surface during installation. Dropping it or letting it fall could cause damage.
6. 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.
7. Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.
8. 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.
9. All cautions and warnings on the equipment should be noted.
10. If the equipment is not used for long time, disconnect it from the power source to avoid being damaged by transient over-voltage.
11. Never pour any liquid into ventilation openings. This could cause fire or electrical shock.
12. Never open the equipment. For safety reasons, the equipment should be opened only by qualified service personnel.
13. 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.
14. **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.

# 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 UF703450F Li-ion 11.1V 2860mAh SANYO. 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 40°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.

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# Chapter 1 Ready to Go

Congratulations on your purchase of the MIT-W101 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-W101. 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.
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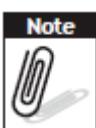
Denotes information that must be observed.  
Failure to do so may result in personal harm or damage to the product.

## 1.2 Product Features

- Rugged design.
- Featuring with the Future Intel® Celeron™ processor for intelligent system.
- Built-in WLAN/Bluetooth/NFC.
- Durable, shock-resistant magnesium alloy housing.
- Comply with IP65 sealing & built to withstand a 4 ft drop with only 20 mm in thickness.
- 10.1 " WXGA TFT LCD
- Integrated Barcode, NFC and expansion module option of MSR and smart card Reader.
- Optional accessory to meet 6ft drop and variety of user scenario.

## 1.3 Package Contents

Ensure all the following items are present when you receive your MIT-W101. 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-W101 Tablet PC
- AC power adaptor
- Battery Pack

## 1.4 Optional Accessories

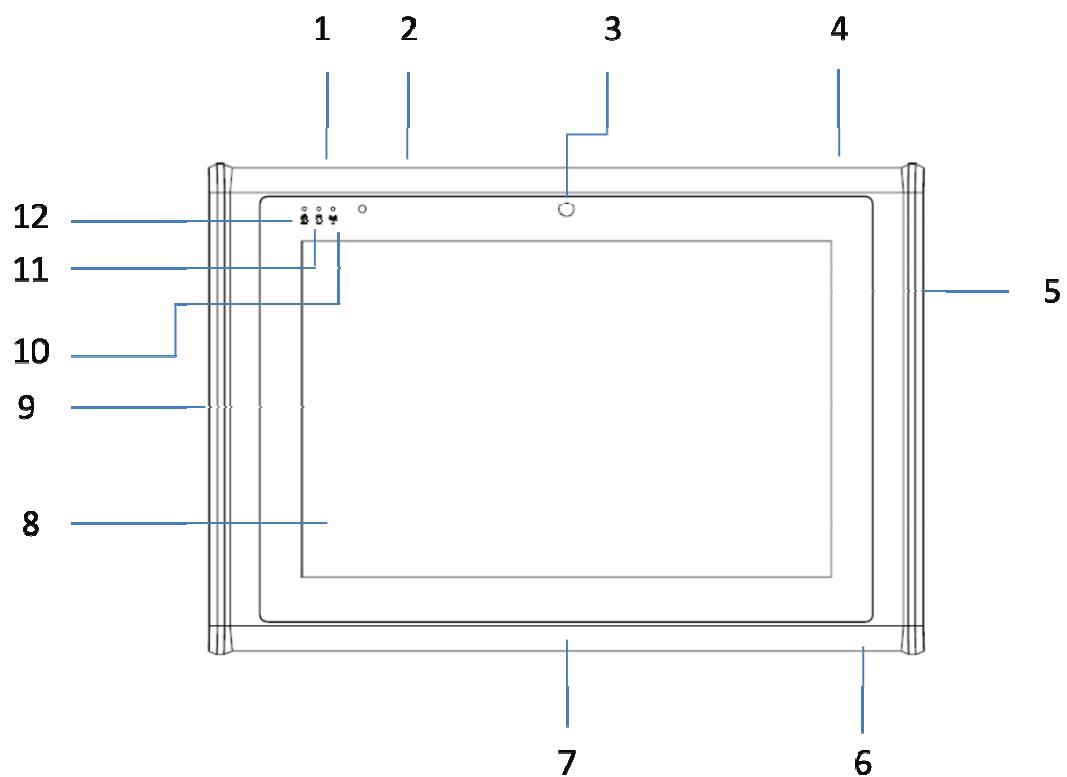
- Docking station
- 3-in-1 VESA/ Hand strap / Kickstand Multiple function back cover
- Shoulder strap
- Rubber bumpers
- Capacitive stylus pen

## 1.5 Optional Modules

- Barcode Scanner
- Expansion module (MSR and Smart Card Reader)

## 1.6 Exploring the MIT-W101

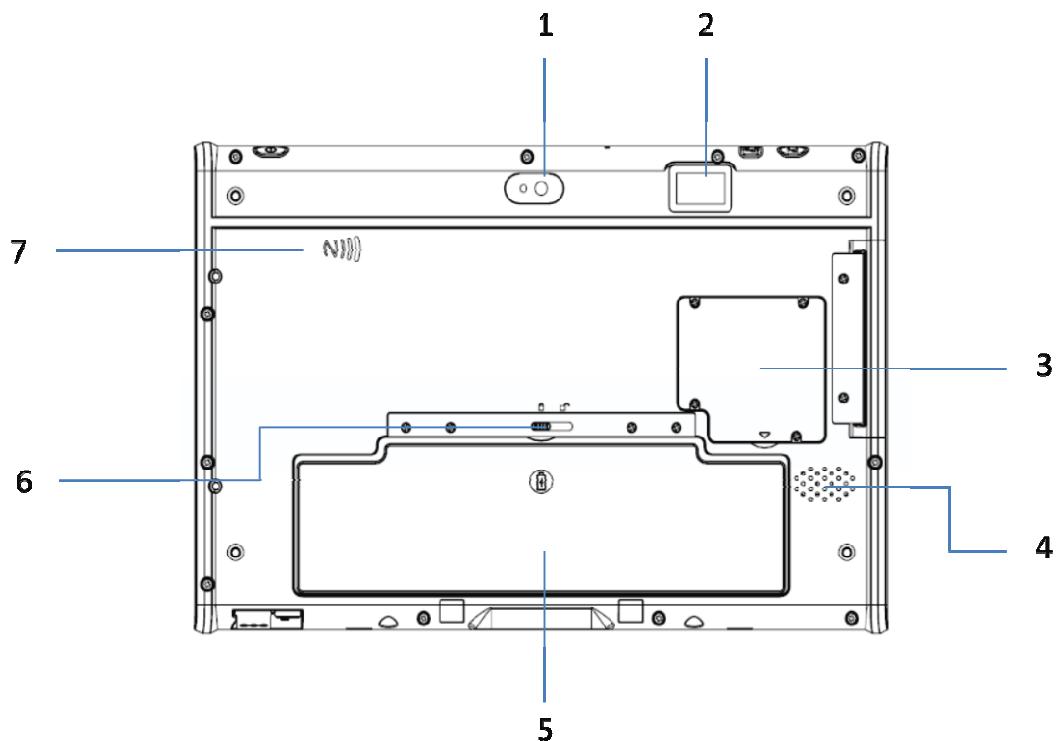
### 1.6.1 Front View



No.	Component
1	P1 - Programmable Button
2	P2 - Programmable Button
3	Front Camera
4	Power button
5	Connected to expansion module
6	AC-in jack
7	Docking connector

8	Projective capacitive multiple touch screen
9	I/O ports <ul style="list-style-type: none"><li>• USB 3.0 x 1</li><li>• USB 2.0 x 1</li><li>• Micro HDMI x 1</li><li>• Audio x 1</li></ul>
10	Connectivity LED indicator <ul style="list-style-type: none"><li>• Blue: when Wi-Fi / BT module is on</li></ul>
11	HDD LED indicator <ul style="list-style-type: none"><li>• Blinking green: when hard disk drive is working</li></ul>
12	Power / Battery LED indicator <ul style="list-style-type: none"><li>• Green: Battery is fully charged (&gt;95%)</li><li>• Amber : Battery is charging</li><li>• Amber: Battery life is lower than 10%</li></ul>

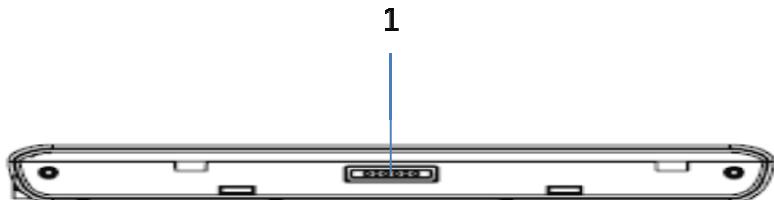
### 1.6.2 Rear View



No.	Component
-----	-----------

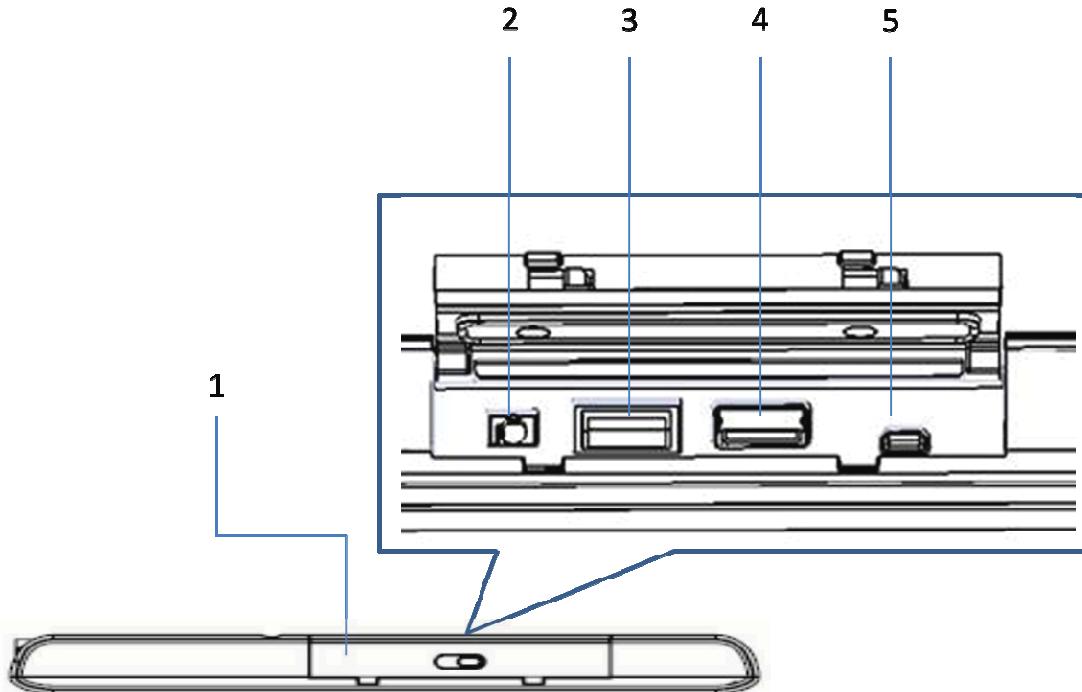
1	Back camera
2	Barcode scanner
3	SSD cover
4	Speaker
5	Battery
6	Battery Latch
7	NFC

### 1.6.3 Right View



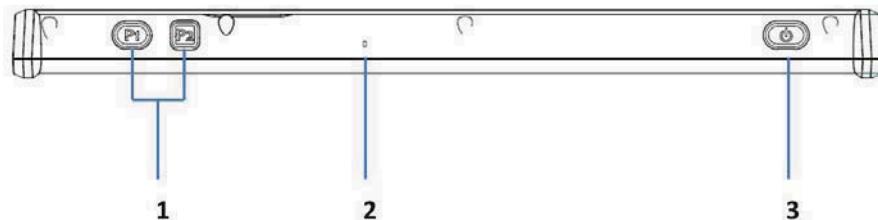
No.	Component
1	Connected pin for expansion module

### 1.6.4 Left View



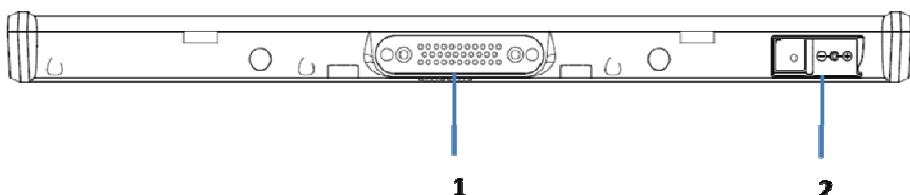
No.	Component
1	I/O ports cover
2	Audio Jack
3	USB 3.0
4	USB 2.0
5	Micro HDMI

### 1.6.5 Top View



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

### 1.6.6 Bottom View



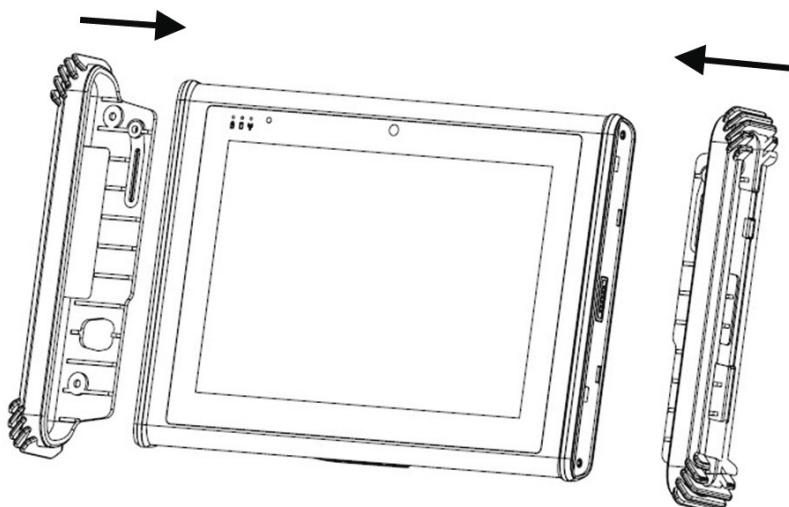
No.	Component
1	Docking connector
2	AC-in jack

## Chapter 2 Getting Started

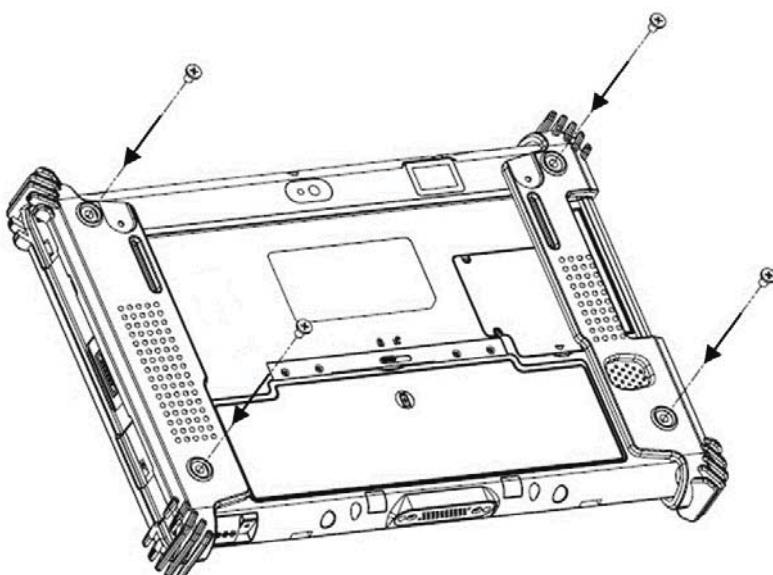
## 2.1 Installing the Rubber Bumpers (Optional)

To protect the housing case of MIT-W101, install the rubber bumpers.

1. Install the rubber bumpers on the left and right side of the MIT-W101.
2. Make sure the rubber bumpers are aligned and locked on the indents.



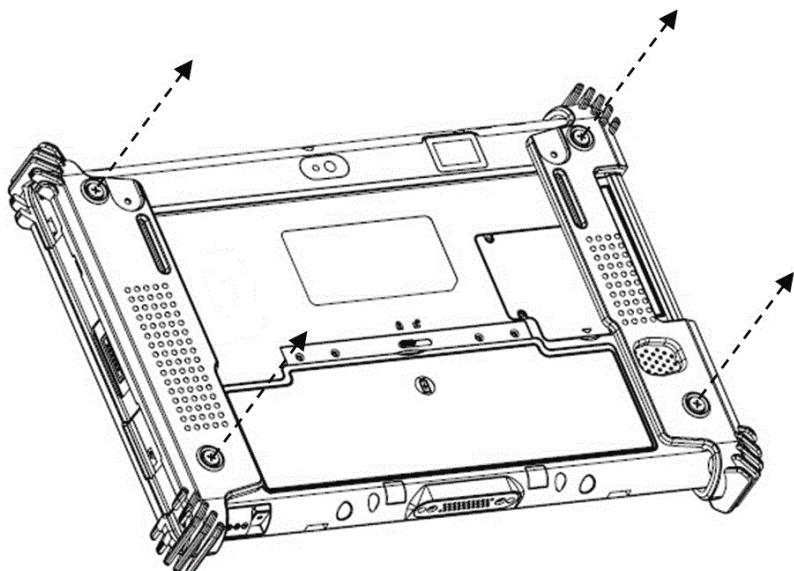
3. Screw the rubber bumpers on left and right properly into the MIT-W101.



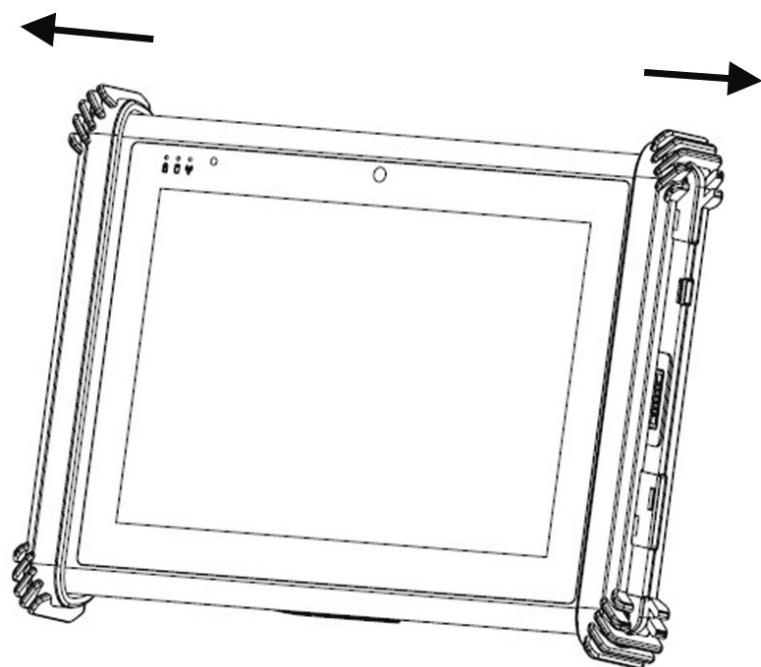
The Rubber bumper could provide well drop protection when device fall from high place. Please assure the rubber was put on the right position and the screws was fastened when install the bumper on device.

## 2.2 Removing the Rubber Bumpers (optional)

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

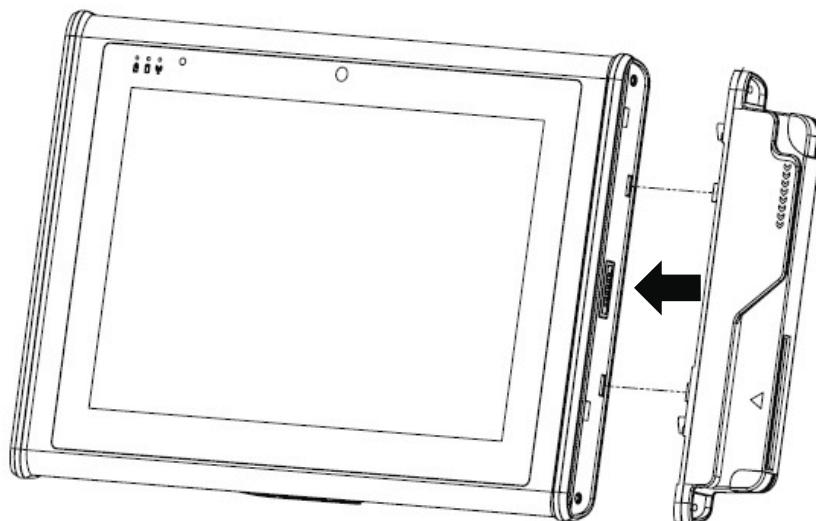


2. Remove the rubber bumpers on the left and right.

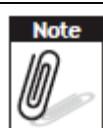
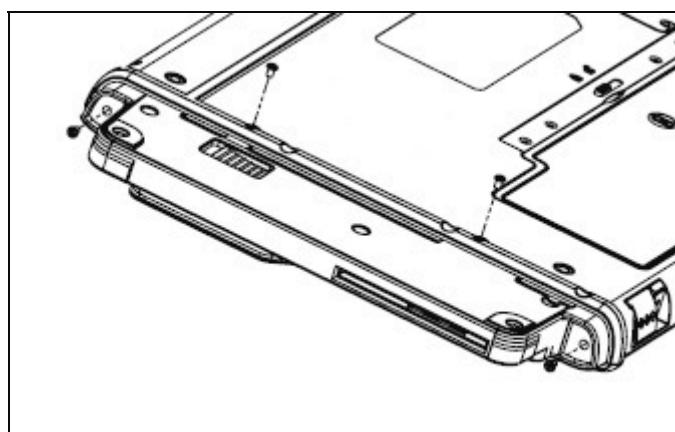


## 2.3 Installing an Expansion module (Optional)

1. Make sure the system is turned off.
2. Attach the expansion module connector to the MIT-W101.



3. Screw to secure the expansion module onto the MIT-W101.



Please assure the expansion module was put on the right position and the screws was fastened when install the module on device. The expansion module might not work if the device was not installed probably or damage by drop.

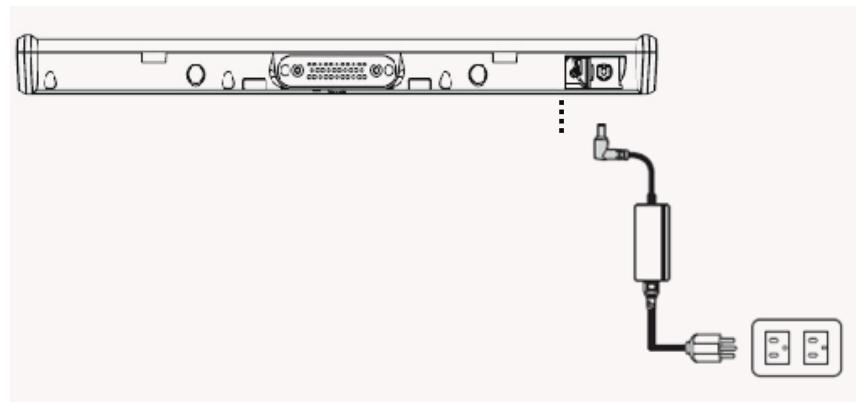
## Chapter 3 Making Connections

### 3.1 Connecting the Power

Before you can use your MIT-W101, 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
- A minimum of 4 hours when a second battery is installed

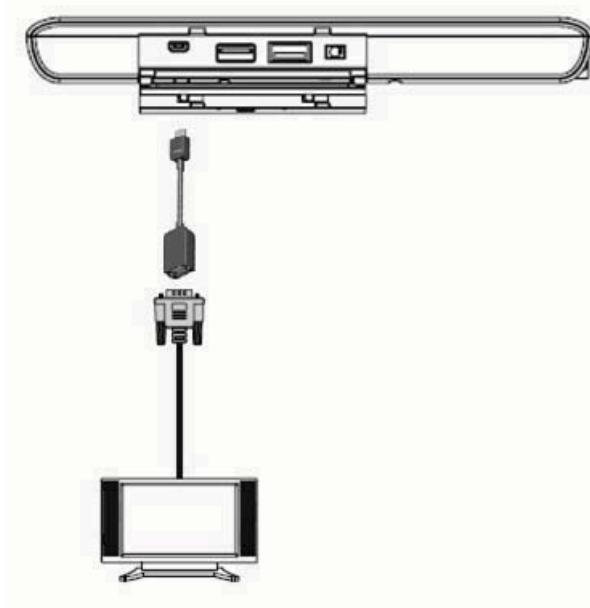
Condition: the operation time is based on the LCD backlight at 50% and the average utilization of the system under 10%.



### 3.2 Connecting to a Monitor

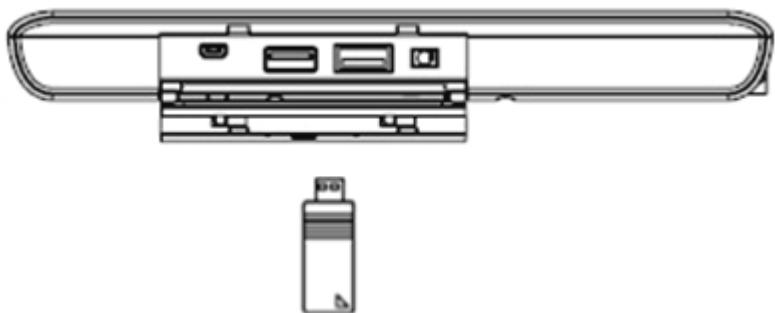
You can connect the MIT-W101 to an external monitor for enhanced viewing.

Connect one end of a HDMI to VGA cable to the Micro HDMI port on the left side of the MIT-W101. Connect the other end to the VGA cable and connect to the monitor.



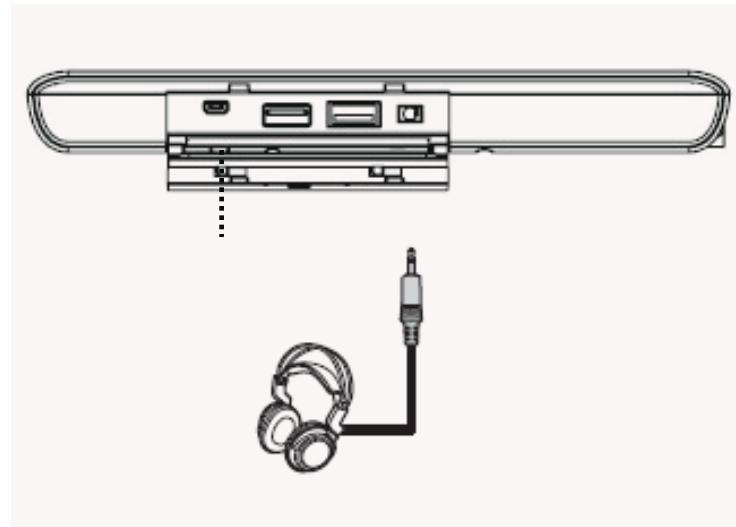
### 3.3 Connecting USB Devices

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-W101.



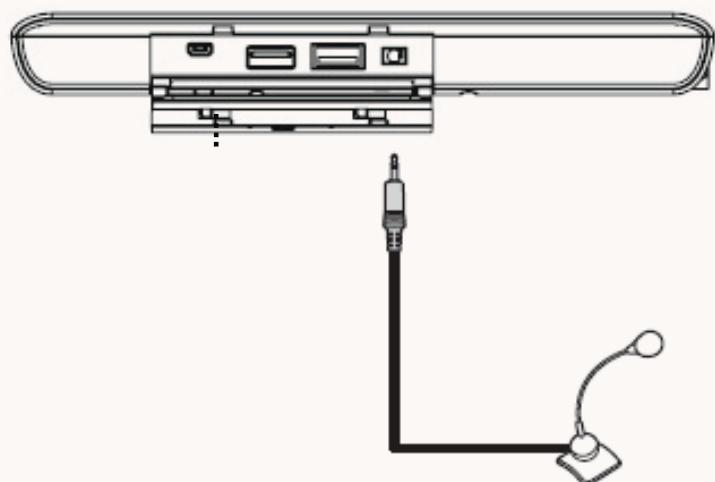
### 3.4 Connecting Headphones

You can connect a pair of headphones using the headphone jack on the left side of the MIT-W101.



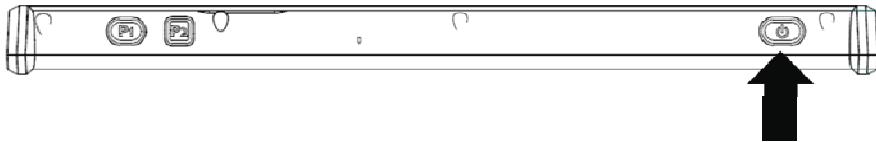
### 3.5 Connecting a Microphone

The MIT-W101 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-W101 as shown.



## Chapter 4 Turning On

1. Press and hold the power button to turn on the MIT-W101.



## 4.1 Controlling the MIT-W101

### 4.1.1 Using the Touch Screen

The MIT-W101 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.

### 4.1.2 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.

### 4.1.3 Using the Control Panel Buttons

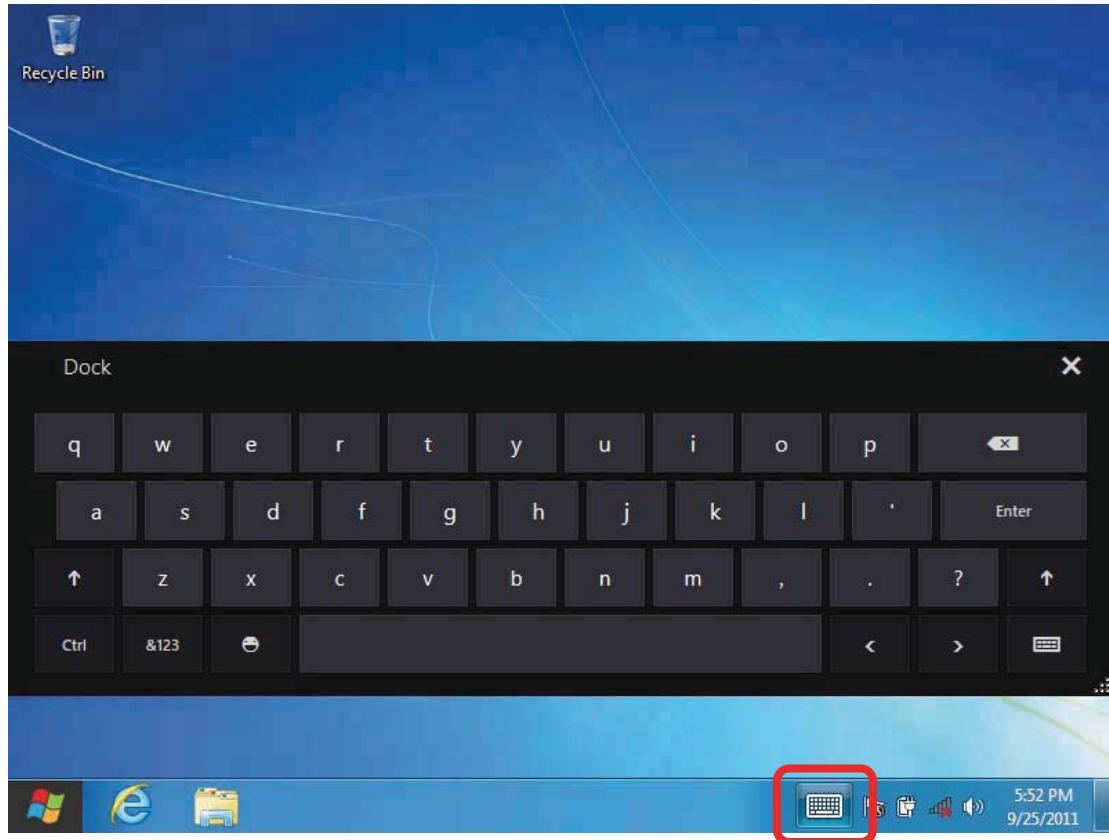
The control panel buttons are located on the top side of MIT-W101.

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

#### 4.1.4 Using the On-Screen Keyboard

1. Click on icon in the taskbar to bring up the on-screen keyboard.



2. 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.

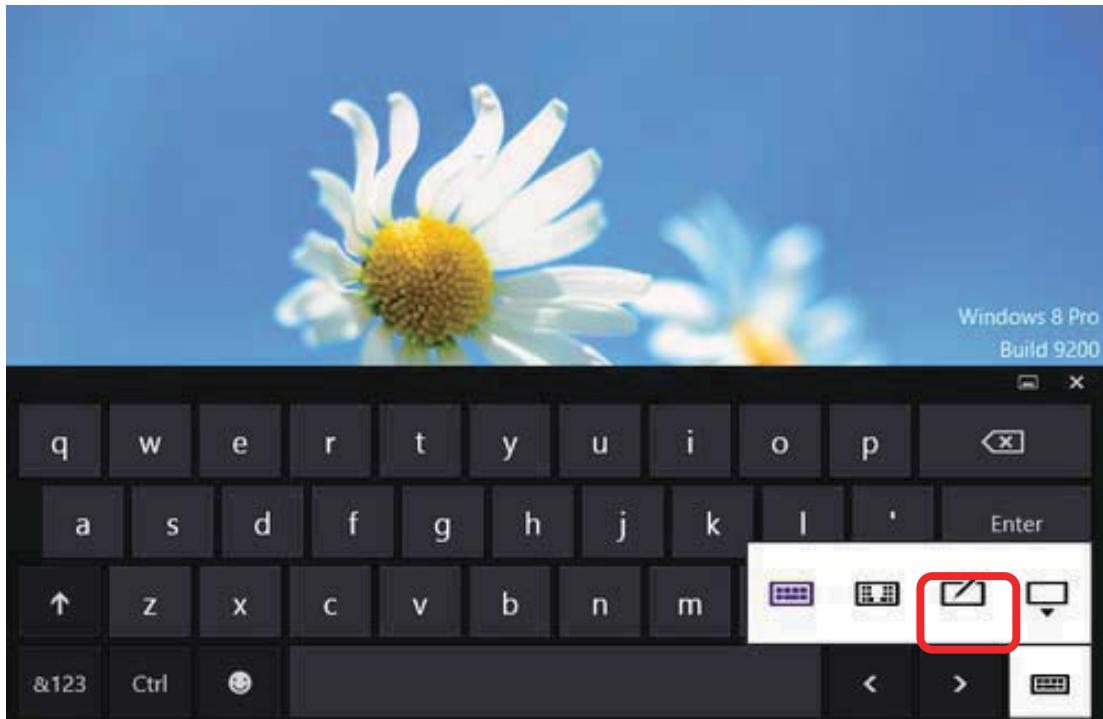


3. To use handwriting, tap bottom right button of On-Screen Keyboard.

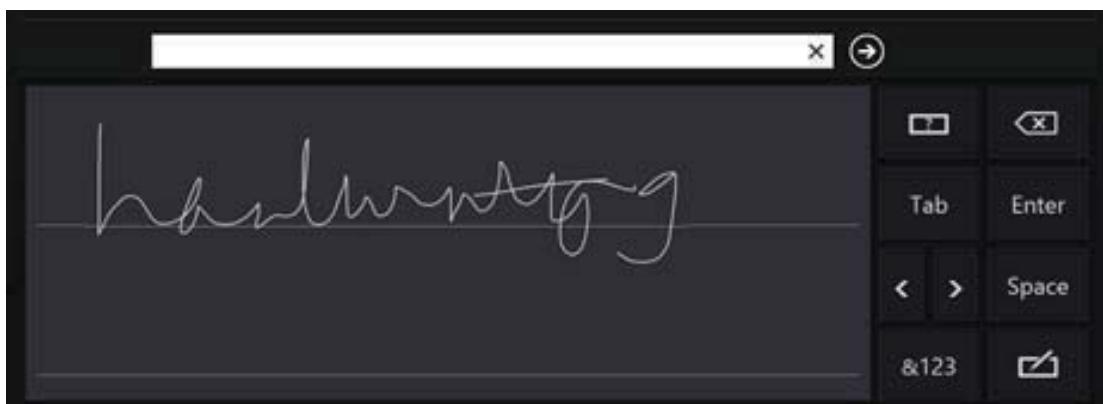




4. Select the **handwriting** icon.

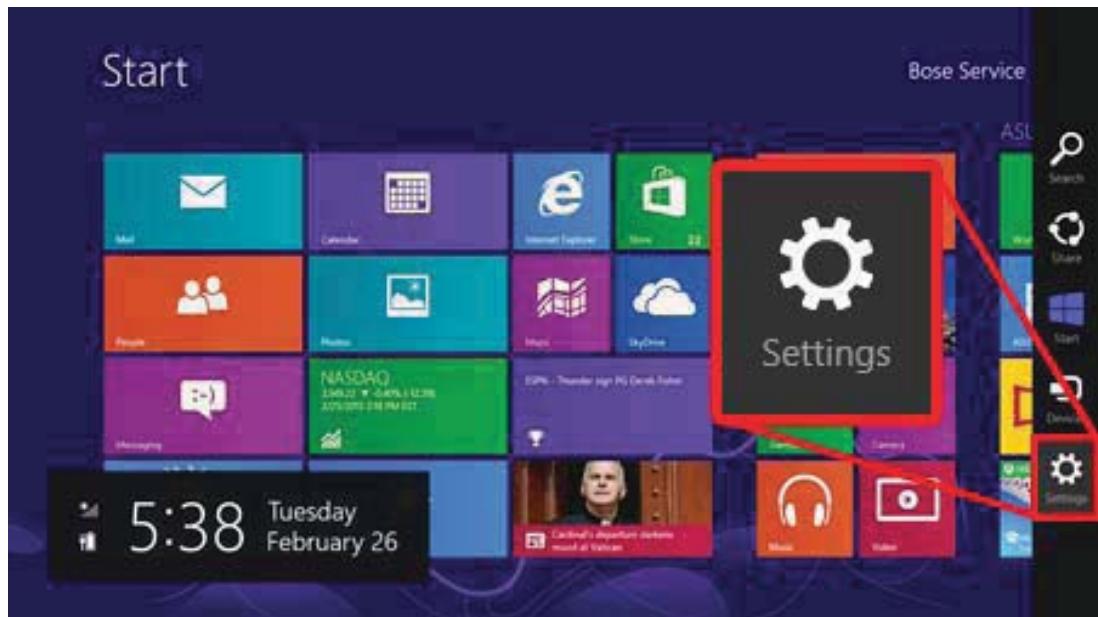


5. Use your finger and stylus pen to write on screen.

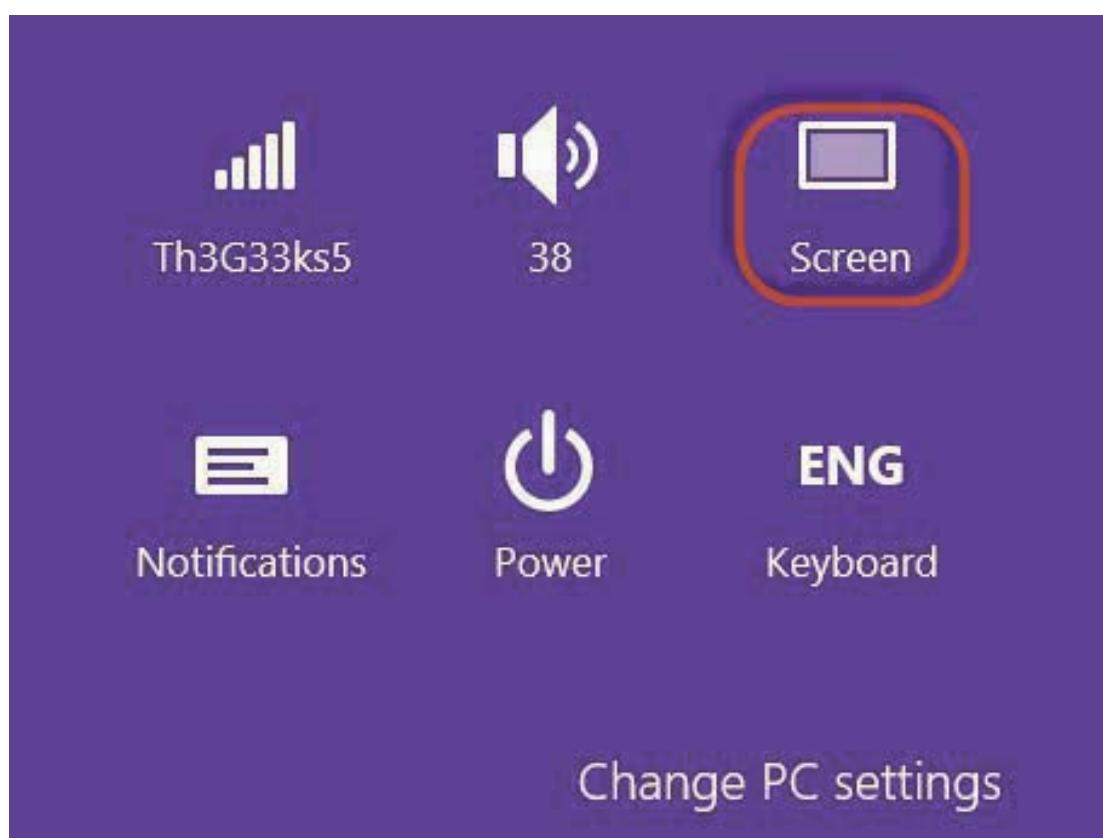


#### 4.1.5 Adjusting Screen Brightness

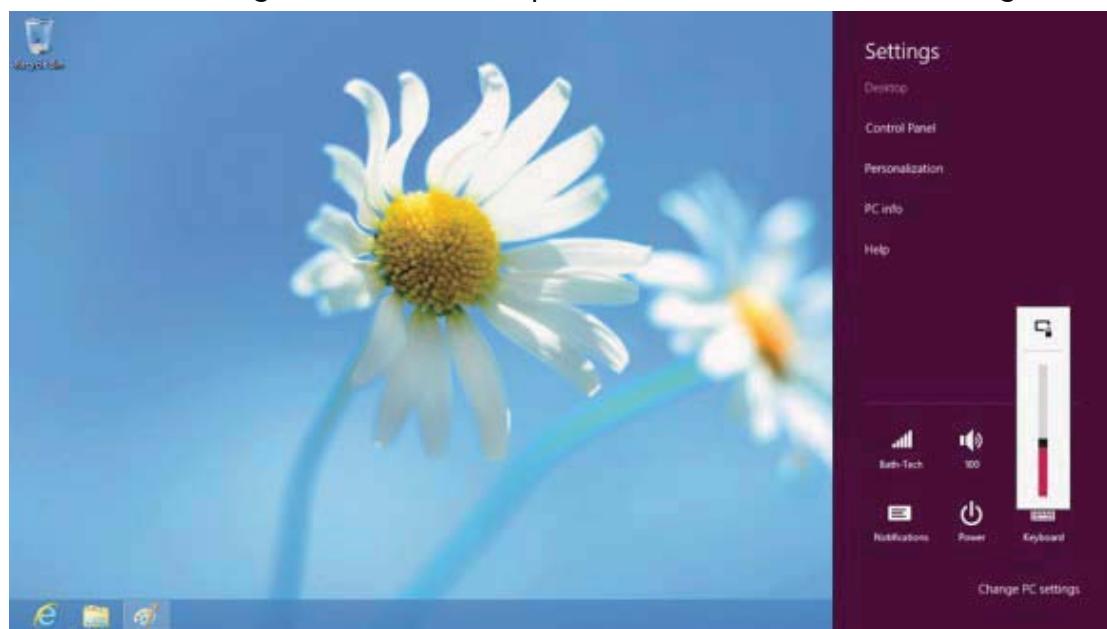
1. Tap the **Settings** icon on the right.



2. Tap Screen icon to access the brightness control.

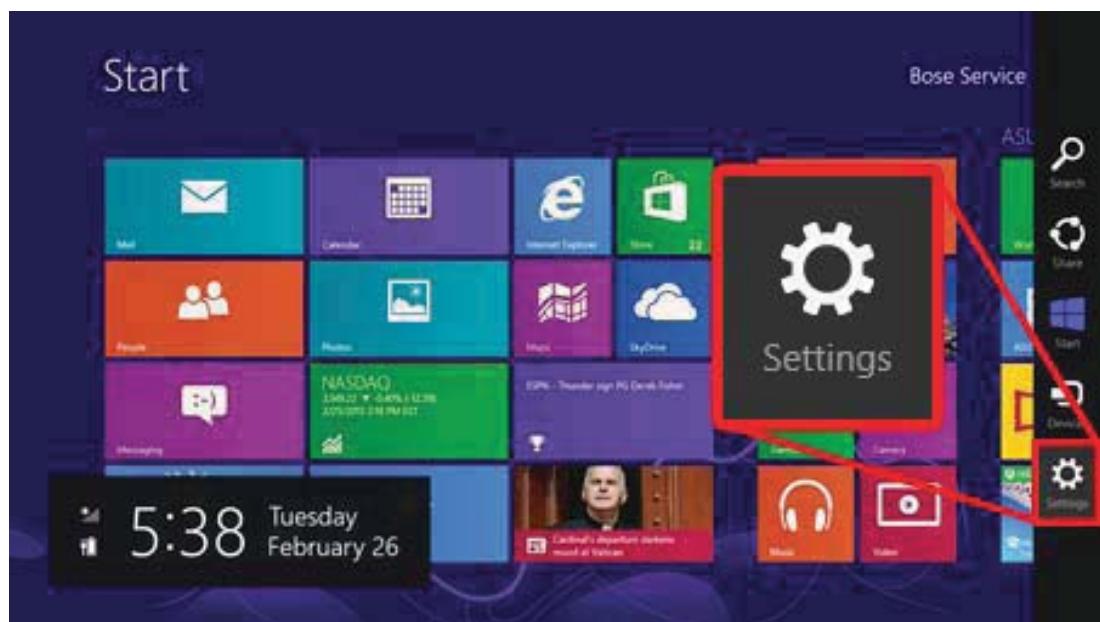


3. To move the brightness control bar up / down to increase / decrease brightness.

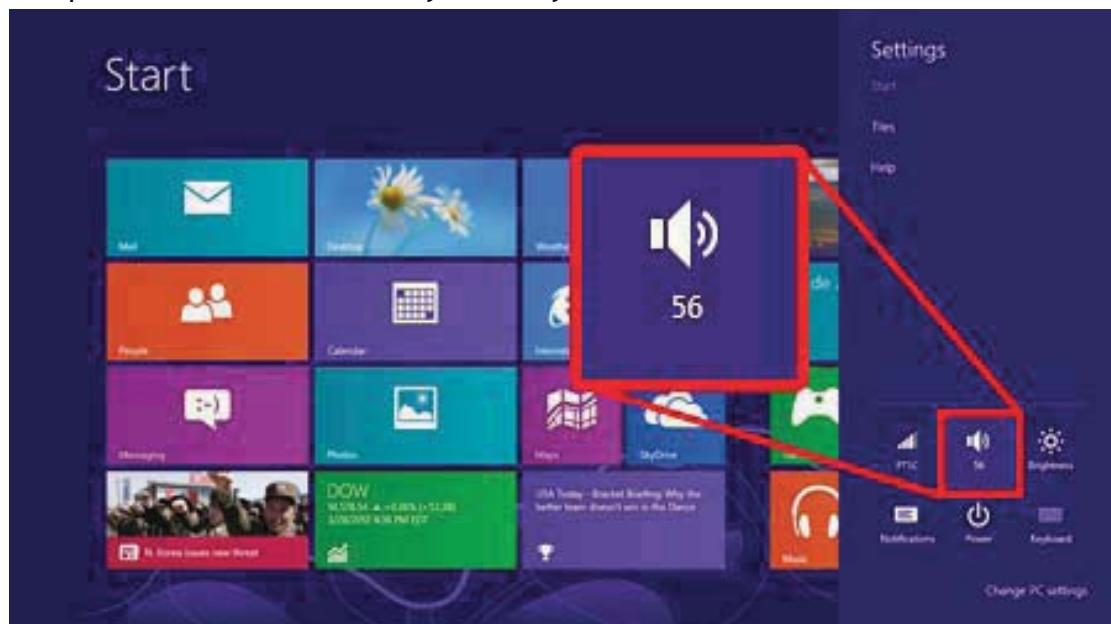


#### 4.1.6 Adjusting the Volume

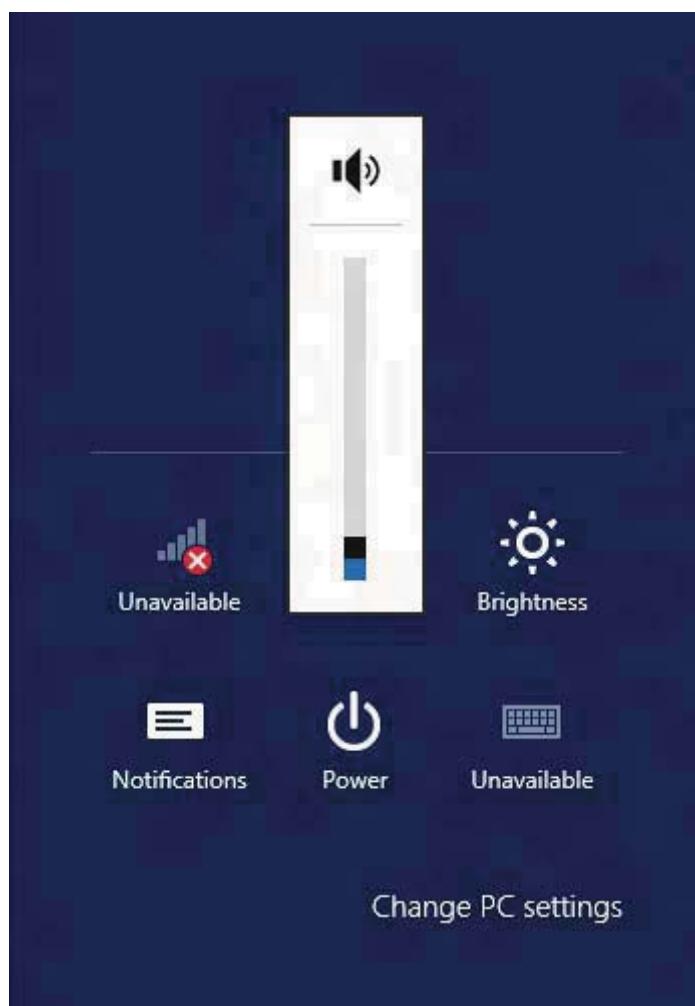
1. Tap the **Settings** icon on the right.



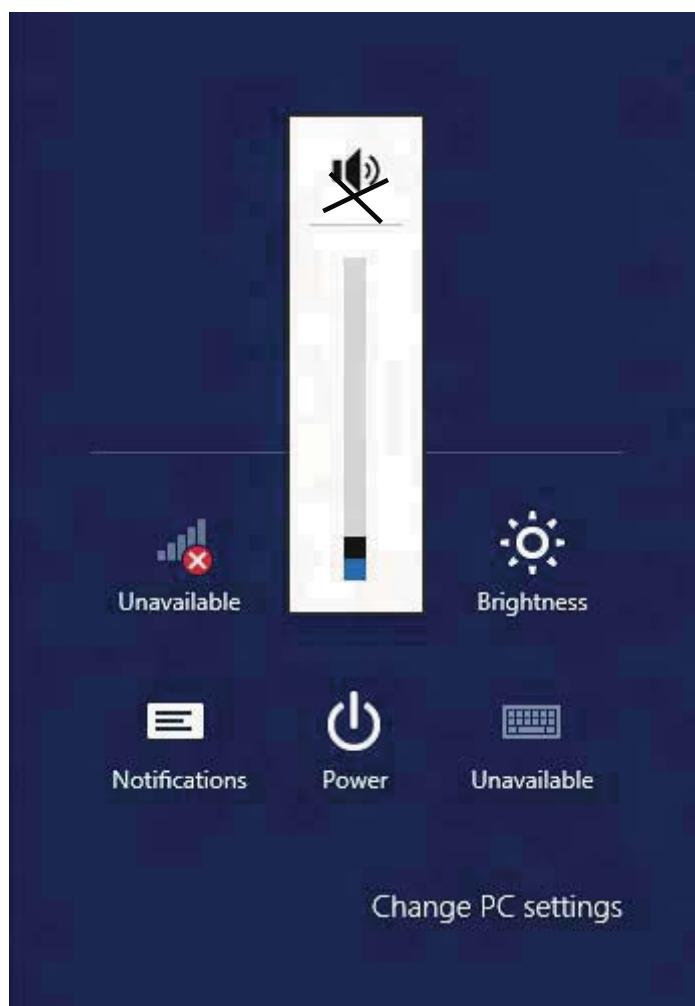
2. Tap the **Volume** icon on the system tray.



1. Move the slide to adjust volume.



2. Tap icon to mute.



## Chapter 5 Wireless Connections

## 5.1 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-W101 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.

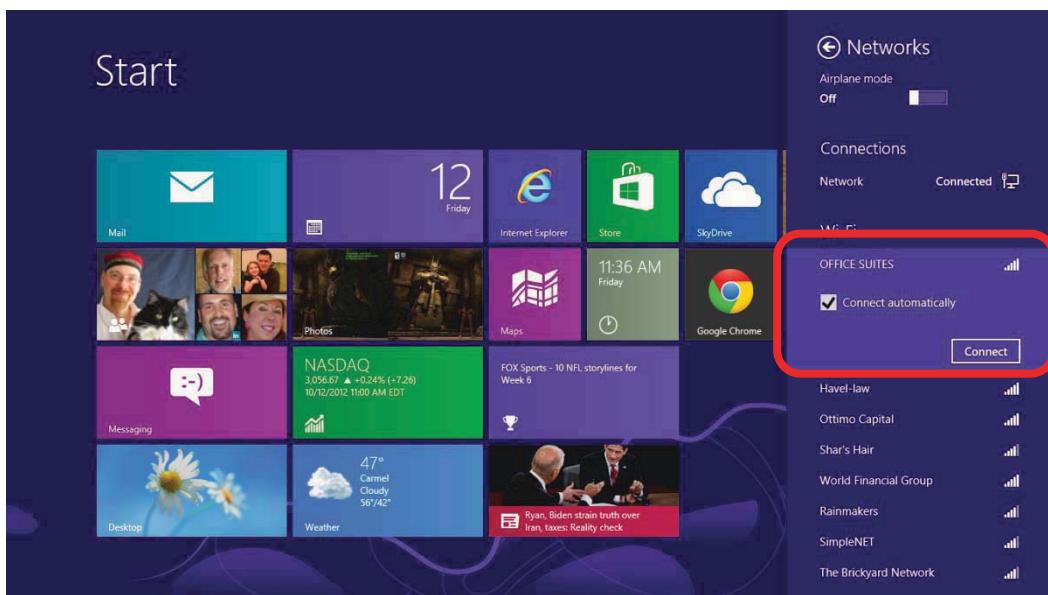
1. Tap the **Settings** icon on the right.



2. Click the wireless connection icon in the notification area.



3. Select one of the wireless connections and click Connect.

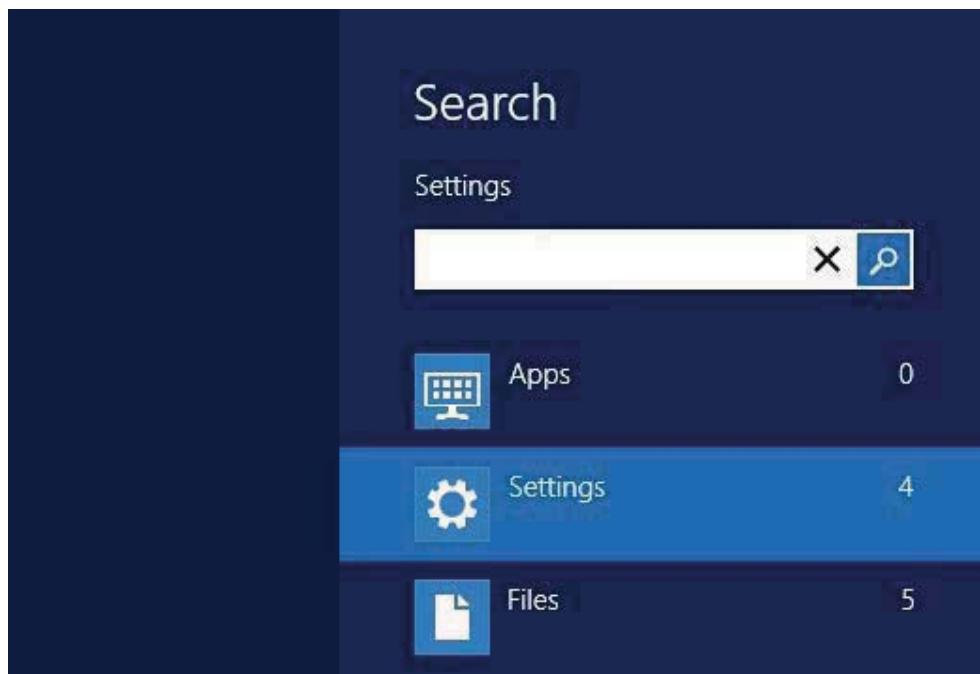
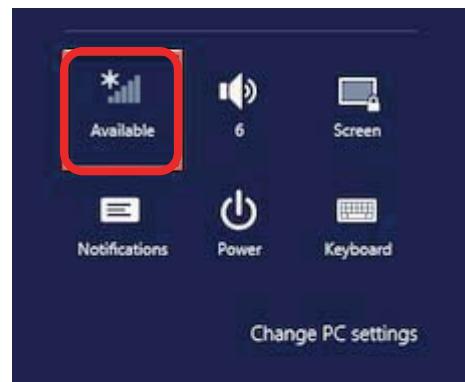


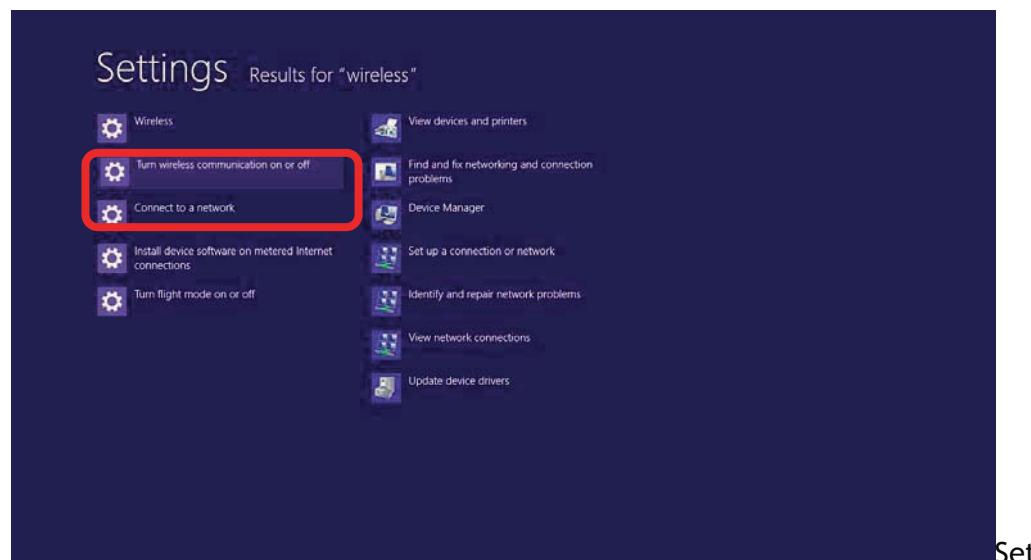
4. You are prompted to enter a Security key for secure access. Contact the network administrator for this key.



5. Enter the required Security key and then tap **Next** to connect.
6. The wireless connection is negotiated.

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





airplane mode or turn off wireless devices

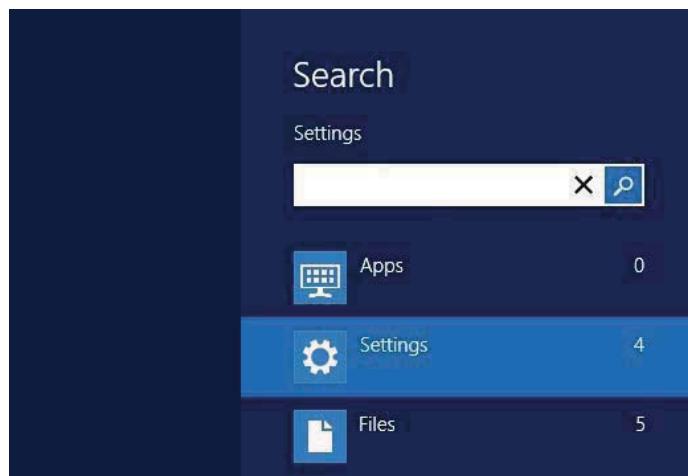
## 5.2 Bluetooth Connections

The MIT-W101 comes with built-in Bluetooth functionality that allows you to connect and communicate with other Bluetooth-enabled devices.

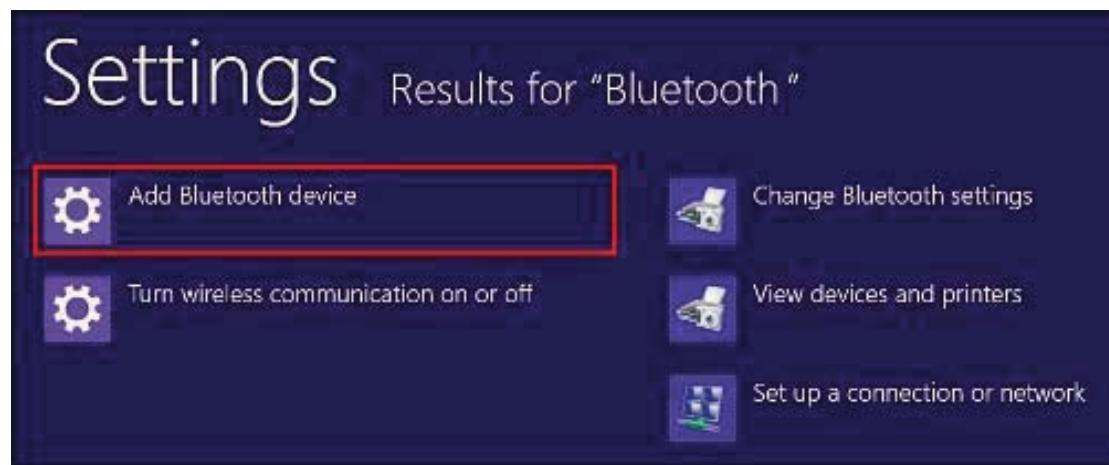
### 5.2.1 Setting Up Bluetooth

Follow these instructions to set up a Bluetooth connection.

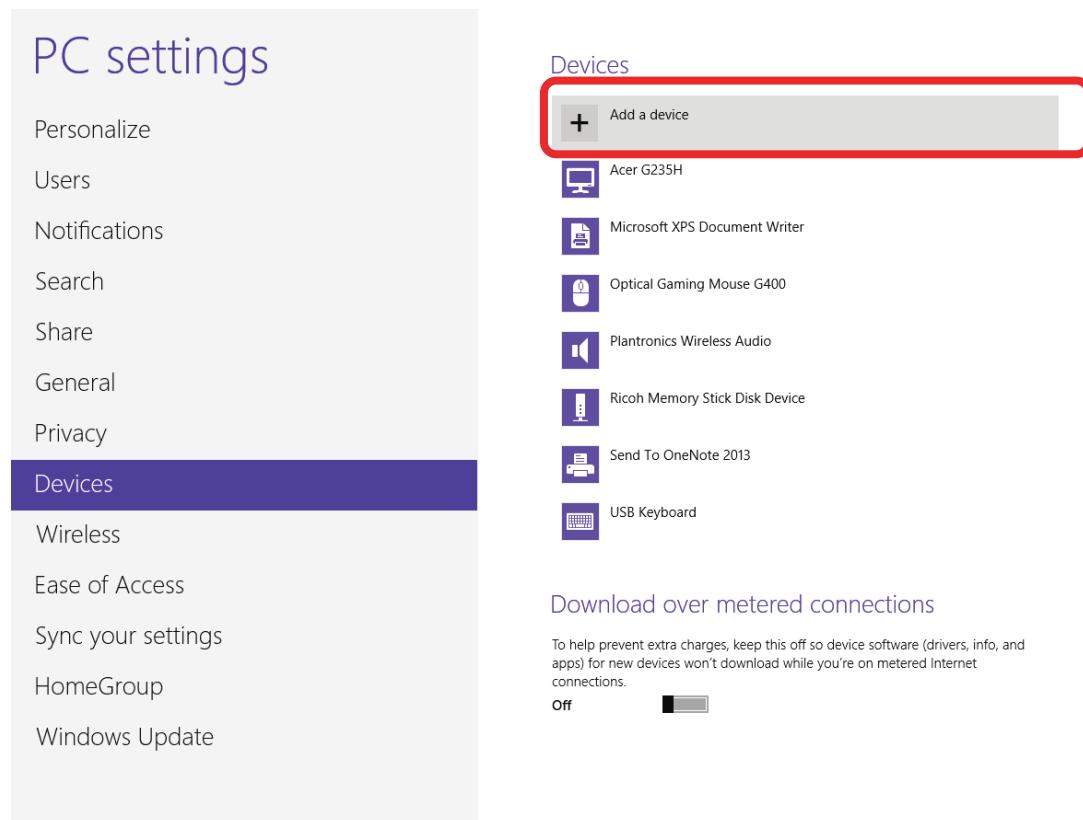
1. Type **Bluetooth** in Search



2. In notification area, tap **Add Bluetooth device**.

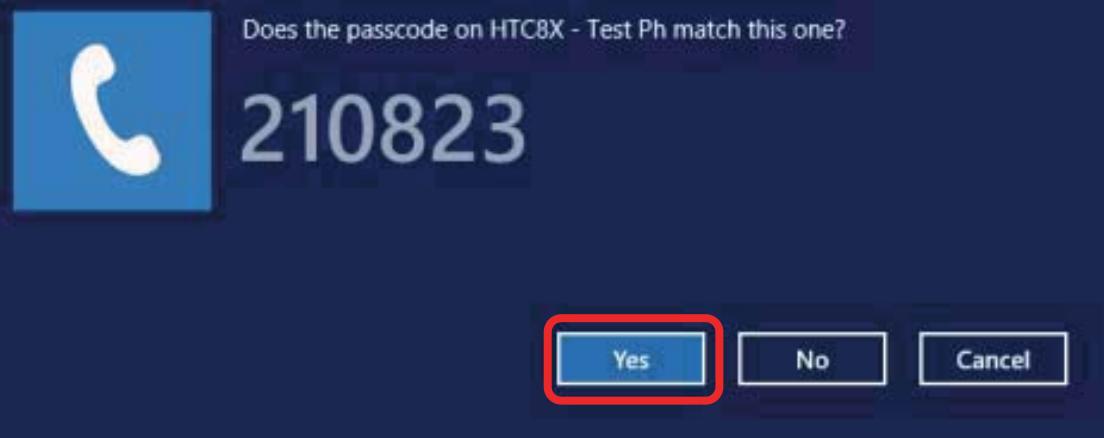


3. Add more Bluetooth device by clicking on **Add a device**.



4. Select **Yes** for comparing both MIT-W101 and the Bluetooth device after passkey is confirmed.

## Compare the passcodes



5. The Bluetooth device is successfully added into MIT-W101 when the process is complete.

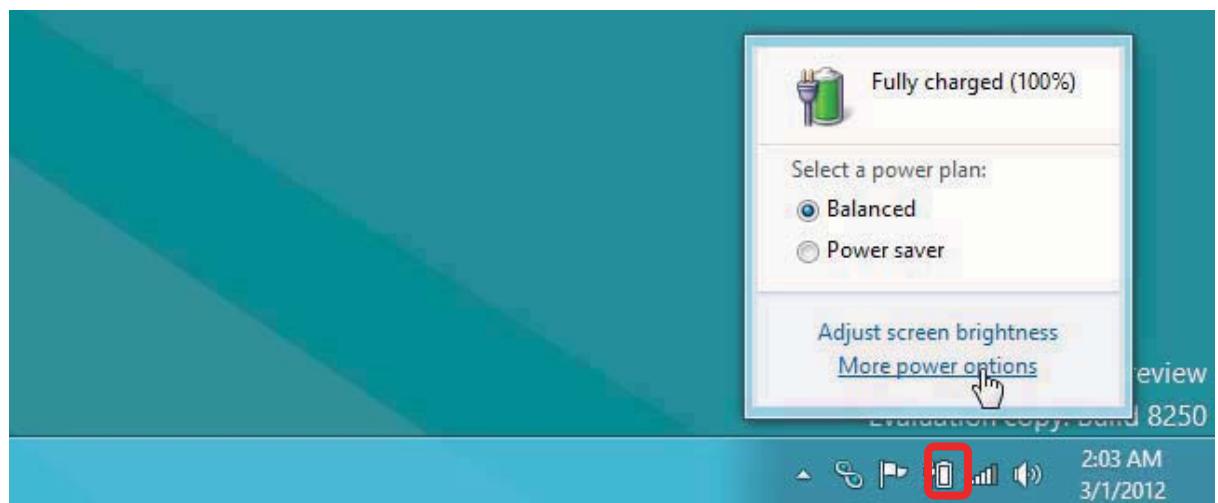
	<p>It is recommended that you use a passkey to prevent unauthorized access to your MIT-W101.</p>
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## Chapter 6 Advance Setting

## 6.1 Checking Battery Status

As it is likely you will be using your MIT-W101 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 system tray to view detailed information and the battery screen appears.



Balanced - Automatically balanced performance with energy consumption.

Power saver - Saves energy by reducing MIT-W101's performance.

## 6.2 Maintenance

### 6.2.1 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.

## 6.2.2 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 denatured alcohol or a proprietary LCD screen cleaner.

## 6.2.3 Cleaning the MIT-W101

1. Turn off the MIT-W101 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.

## Appendix Specifications

## A.1 Specifications

Feature	Description
Operating System	Microsoft Windows Embedded 8 Standard Microsoft Windows 7 Professional for Embedded System (Optional)
Processor	Intel® Celeron® Processor N2930
Max. speed	Quad Core 1.83GHz
Chipset	Intel® Bay Trail-M SoC
Memory	One DDR3L 1333MHz SO-DIMM, up to 8GB
Storage	One mSATA SSD, up to 128GB
Display	10.1" WXGA 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 WLAN built-in with integrated antenna Bluetooth class 2, 4.0 + EDR 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, Standard battery, 11.1V, 2860 mAh, 3S2P
ITE Power Adapter	AC Adapter: AC 100V-240V 50/60Hz,1.5A Output : 19Vdc/3.42~4.2A/65W, Auto Sensing/Switching worldwide power supply

Feature	Description
Security	1. Password security
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
Expansion Port	One MSR (On optional expansion module) One Smart Card Reader (On optional expansion module)
Physical	295 x 196 x 20mm Approx. 1.1Kg (base configuration); approx. 2.43lbs
Environment	Operating Temperature: 0°C to 40°C (Condition: Charge) - 20°C to 60°C (Condition: discharge) Storage Temperature -20°C to 60°C Operating Humidity 5% ~ 95% @40C non-condensing IP65 Compliant 4ft drop onto concrete

Feature	Description
Certification	FCC Class B, CE, CB, UL
Optional Device / Accessories	One Expansion module

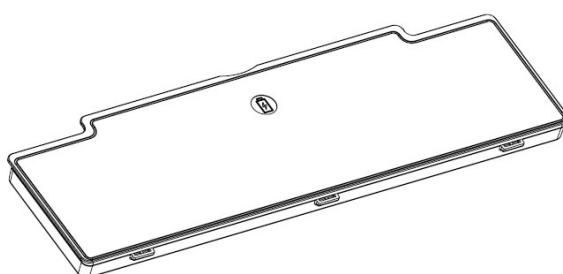
## LED Status

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

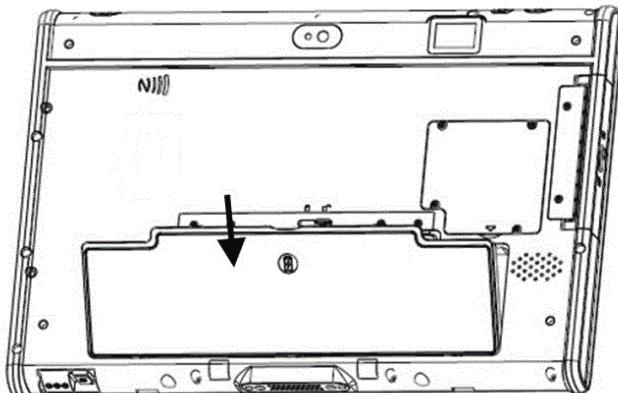
You can use an external battery to extend the power of your MIT-W101.



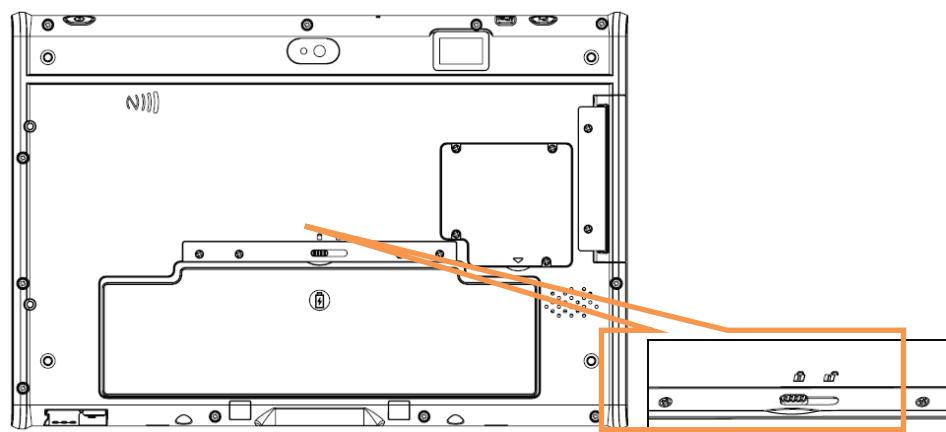
**Battery specification: 2860 mAh, 11.1V**

### A.2.1.2 Installing the External Battery

1. Align and insert the battery on the MIT-W101.



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

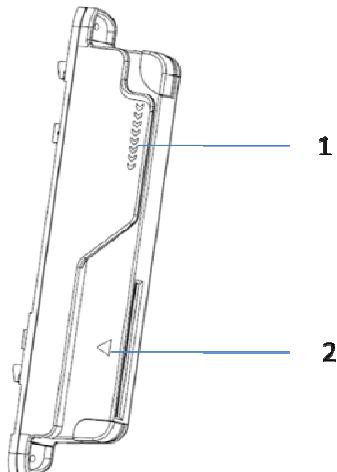


### A.2.1.2 Removing the External Battery

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

## A.2.2 Expansion Module

Built-in MSR and Smart Card Reader in expansion module.



No.	Function
1	MSR
2	Smart Card Reader

## A.3 Installing an SSD and a SIM

### A.3.1.1 Inserting an 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-W101.

1. Open the SSD card compartment cover.



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



3. Screw and fix SSD.



4. Close the SSD compartment cover.



### A.3.1.2 Removing an SSD

1. Open the SSD compartment cover.



2. Unscrew and remove SSD from the slot.



3. Close and screw the SSD card compartment cover.

