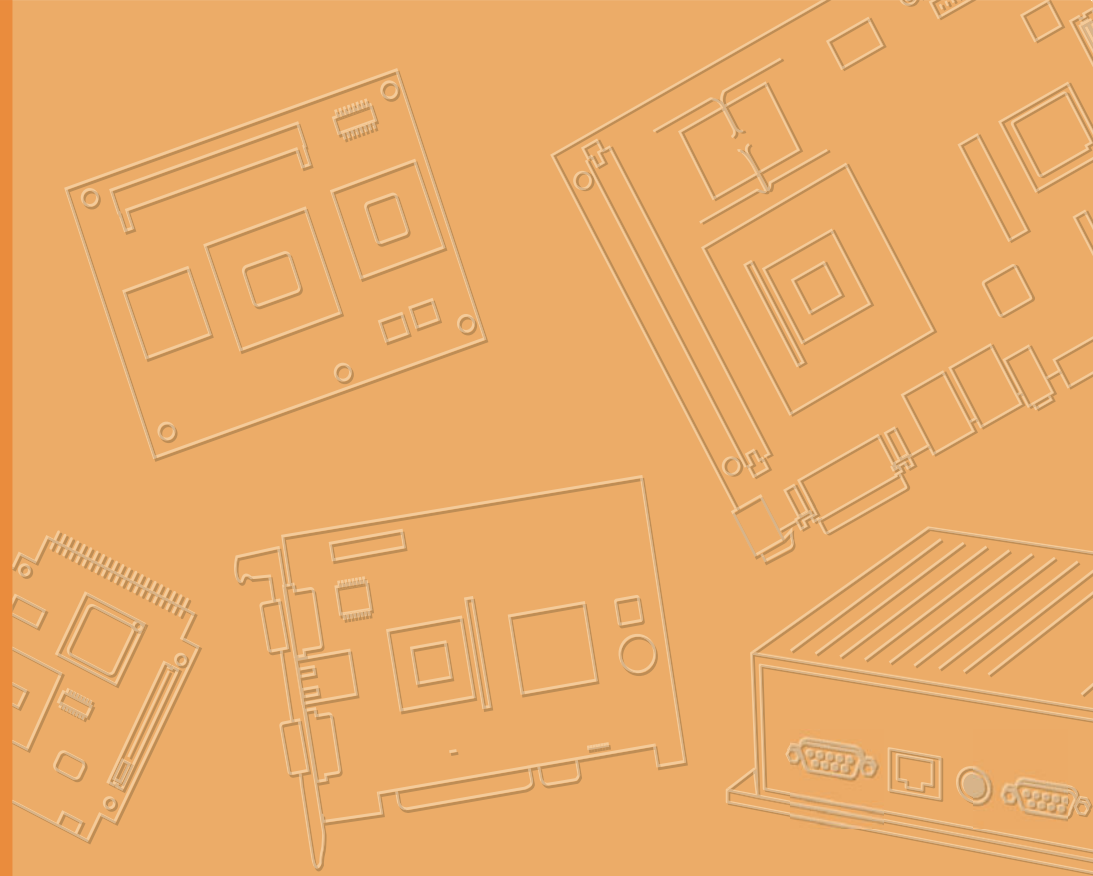


User Manual



AIM-37AT

**RISC All-in-One Light duty
Mobile Data Terminal**

ADVANTECH

Enabling an Intelligent Planet

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
- 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 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 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.

To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example: use only shielded interface cables when connecting to computer or peripheral devices).

Part No.
Printed in Taiwan

Edition 1
February 2017

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.

15.21

Any changes or modifications not expressly approved by the party responsible for compliance could void the authority to operate equipment.

This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.

End-users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

For product available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible.

FCC Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment for body-worn configuration in direct contact to the phantom.

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment.

IC warning 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.

This radio transmitter has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance are strictly prohibited for use with this device.

Le présent émetteur radio a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal et l'impédance requise pour chaque type d'antenne. Les types d'antenne non inclus dans cette liste, ou dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

IC Radiation Exposure Statement

This EUT is compliance with SAR for general population/uncontrolled exposure limits in IC RSS-102. This equipment should be installed and operated with minimum distance 0 cm between the radiator & your body.

Cet EUT est la conformite avec SAR pour la population generale / les limites d'exposition incontrolees dans IC RSS-102. Cet equipement doit etre installe et utilise a une distance minimale de 0 cm entre le radiateur et votre corps.

NCC Warning Statement

Article 12

Without permission, any company, firm or user shall not alter the frequency, increase the power, or change the characteristics and functions of the original design of the certified lower power frequency electric machinery.

Article 14

The application of low power frequency electric machineries shall not affect the navigation safety nor interfere a legal communication, if an interference is found, the service will be suspended until improvement is made and the interference no longer exists.

Technical Support and Assistance

1. Visit the Advantech web site at <http://support.advantech.com> where you can find 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

Package List

Ensure all the following items are present when you receive your AIM-37AT. If any of these items are missing, contact your dealer immediately.

- AIM-37AT Computer
- Startup Manual
- AC power adaptor (micro USB connector)

Safety Instructions

1. Read these safety instructions carefully.
2. Keep this User Manual for later reference.
3. Disconnect this equipment from any AC outlet before cleaning. Use a damp cloth. 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 may cause damage.
6. Do not leave this equipment in an environment unconditioned where the storage temperature under -20°C (-4°F) or above 70°C (158°F), it may damage the equipment.
7. Do not operate this equipment in an environment temperature may over 70°C (158°F). The surface temperature of metal chassis may be scorch and hot.
8. Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.
9. Position the power cord so 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.
10. All cautions and warnings on the equipment should be noted.
11. If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient overvoltage.
12. Never open the equipment. For safety reasons, the equipment should be opened only by qualified service personnel.
13. If one of the following situations arises, get the equipment checked by service personnel:
 - The power cord or plug is damaged.
 - Liquid has penetrated into the equipment.
 - The equipment has been exposed to moisture.
 - The equipment does not work well, or you cannot get it to work according to the user's manual.
 - The equipment has been dropped and damaged.
 - The equipment has obvious signs of breakage.
14. This product is intended to be supplied by a Listed Power Adapter or DC power source, rated 5Vdc, 3A minimum and Tma 50 degree C, if need further assistance, please contact Advantech for further information.Đ_

Battery Safety

Caution! *Danger of explosion if battery is incorrectly replaced. Replace only with the same type recommended by the manufacturer, discard used batteries according to the manufacturer's instructions.*



Danger d'explosion si la batterie est inexactement remplacée. Remplacez seulement avec la même chose ou le type recommandé par le fabricant, jettent les batteries utilisées instructions de s selon fabricant des'.

Mistreat the battery used in this device may present a risk of fire or chemical burn.

Do not attempt to disassemble the computer or its accessories.

Only qualified personal is allowed to replace the battery.

Do not dispose batteries in a fire and check with local authorities for disposal instructions.

AIM-37AT can only be equipped with standard battery pack with TCL PR-396698G 7,900 mAH Polymer Lithium Ion Battery. Use of another battery may present a risk of fire or explosion.

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 -10°C to 60°C, however they may be depleted more rapidly at the high end of this range. It is recommended to store AIM-37AT within normal room temperature ranges. MIT-W101 User Manual

WEEE

EN



Following information is only for EU-member states:

The use of the symbol indicates that this product may not be treated as household waste. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. For more information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

Warnings, Cautions and Notes

Warning! *Warnings indicate conditions, which if not observed, can cause personal injury!*



Caution! *Cautions are included to help you avoid damaging hardware or losing data. e.g.*



There is a danger of a new battery exploding if it is incorrectly installed. Do not attempt to recharge, force open, or heat the battery. Replace the battery only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

Note! *Notes provide optional additional information.*



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Chapter 1

Information

1.1 Introduction

Congratulations on your purchase of the AIM-37AT Computer.

AIM-37AT has two variants and the difference is the optional peripherals at the right side of the device.

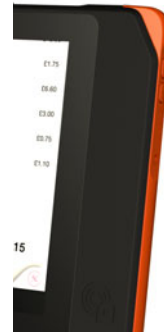
AIM-37AT-M SERIES:

MSR and IC Card Reader slots are embedded at the right side.



AIM-37AT-S SERIES:

The card reader slots are sealed off and replaced by volume keys.



This product combines stylish 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 AIM-37AT. If you have any further questions or queries, contact our technical support team via our website: <http://support.advantech.com.tw/>

1.2 Product Features

- Semi-rugged stylish design with only 17.4mm in thickness.
- Low power Intel® ATOM™ processor designed for mobile applications.
- Rich Built-in WLAN/Bluetooth/NFC wireless communications.
- 10.1 " WXGA TFT IPS LCD with 10-points multiple touch.
- Durable and reliable Anti-Glare, Anti-Fingerprint Corning Gorilla Glass™ 3.
- Dual USB 2.0 host connectors via Micro USB
- Optional 2D barcode scanner with trigger button and status LED.
- Comply with IP54 sealing for water and dust (AIM-37AT-S SERIES).
- Built-in MSR and IC Card readers (AIM-37AT-M SERIES).
- Can be configured to install either Android or Windows OS.

1.3 Product Specifications

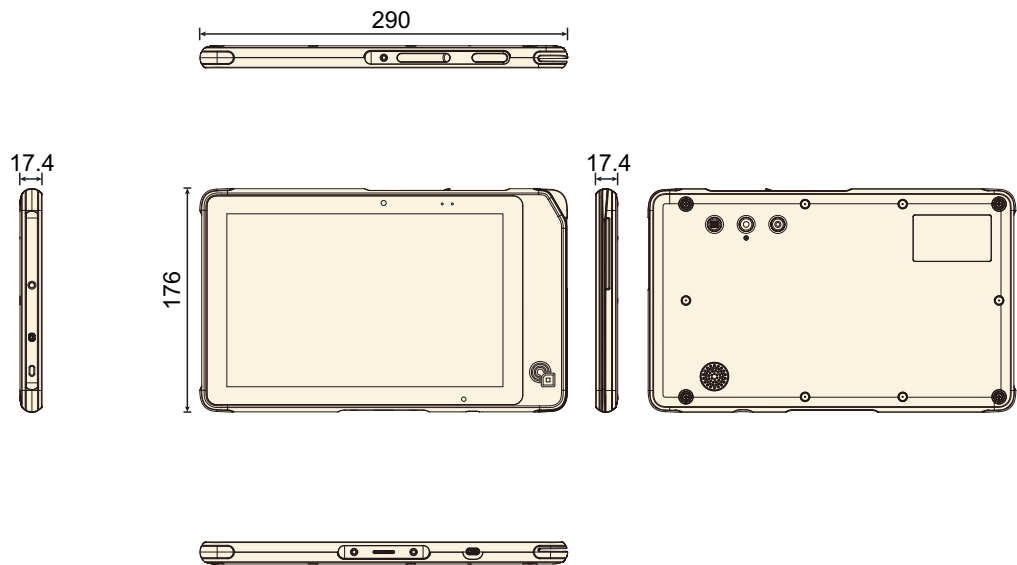
1.3.1 Technical Specifications

		AIM-37AT-M	AIM-37-S
Computing System	CPU	Intel® Atom™ x5-Z8350 Processor	
	Max. Speed	1.92GHz	
	On-board Memory	2GB DDR3L-RS	
	Operating System	Microsoft Windows 10 IoT Enterprise Android 6.0.1	Android 6.0.1
Storage	On-board eMMC	32GB	
	Micro-SD	Micro-SD Card Slot for Storage Expansion up to 128GB	
Display	Display Type	10.1" TFT IPS LCD Panel	
	Max. Resolution	WXGA, 1280x800, 350 nits	
	Touch Type	Projected Capacitive Multi-Touch	
	Glass Type	G/G Direct Bonding, Corning GG3 Glass	
Communication	WIFI	802.11b/g/n	
	Bluetooth	Bluetooth v4.0 CLASS II	
	NFC	Read/ Write Device Compatible With ISO15693, ISO14443A, ISO14443B, Mifare, Felica	
Audio		x1 80dB 1Watt SPK 0.5M, x1 Audio combo jack	
Connectivity	I/O Port Interfaces	x1 Micro USB 2.0 (OTG & Charging) x1 AIM Dock 6-pin Pogo Connector: USB 2.0 + Power	
Camera	Front	2MP Fixed Focus	
	Rear	5MP Auto Focus with LED Flash	
Sensor		G-sensor + E-compass, Gyroscope, ALS	
Security		Kensington security slot	
MSR		3-Track MSR with 3-DES encryption; Triple DES and AES Encryption; DUKPT key management	N/A
IC Card		5V smart card; ISO/IEC 7816-1, 2, 3, 4; T=0 & T = 1;	N/A
Barcode scanner		1D/2D barcode scanner	N/A
Hard Buttons		x1 Power Button x1 Functional Button	x1 Power Button x2 Volume Control Button x1 Functional Button
System Indicators		x1 Power / Battery Status x1 Barcode scanner Status	
Power Input	Micro USB	DC 5V, Max 3A	
	6-Pin Pogo Connector	DC 5V, Max 3A	
Battery	Capacity	Embedded Lithium-ion battery Soft Pack (1S2P): 3.8V 7,900mAH (30 Watt)	
	Operating Temp	0°C ~+40 °C (Charging) 0°C ~+50 °C (Discharging)	

Environment	Temperature	Operating: 0°C ~ +50°C, Storage: -10°C ~ +60°C	
	Operating & Storage Humidity	5% ~ 95%(non-condensing)	
Ingress Protection	Dust/ Water Resistance	IP-54 (Except MSR / IC Card slot)	IP-54 compliant
Physical Characteristics	Dimensions (W x H x D)	290 x176 x 17.4mm	
	Weight	915g	900g
	Color	Black + Orange / Black + Cool Gray	
Certifications		CE/FCC/CB/UL/NCC/BSMI/CCC	

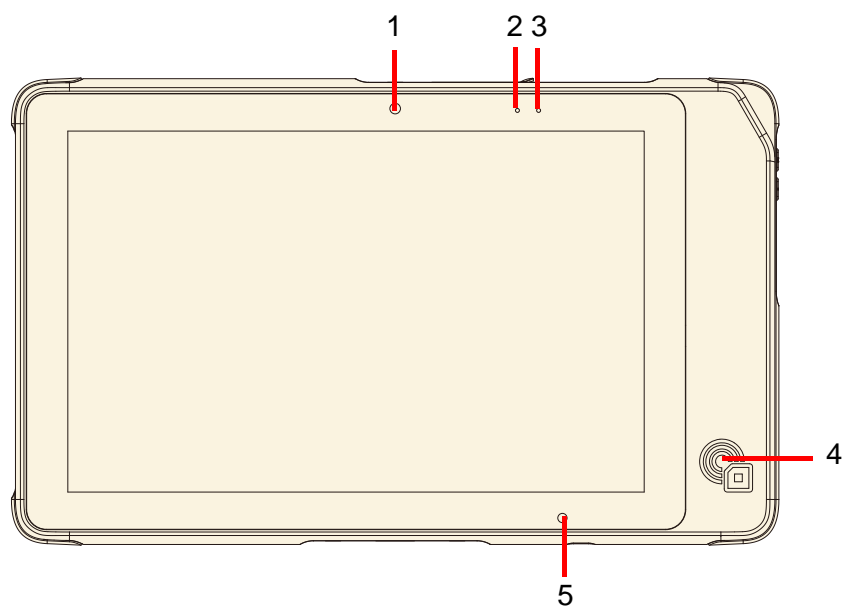
1.3.2 Product Outlook and Dimensions

All AIM-37AT Series share the same dimension, the following illustration uses AIM-37AT-M SERIES as example.



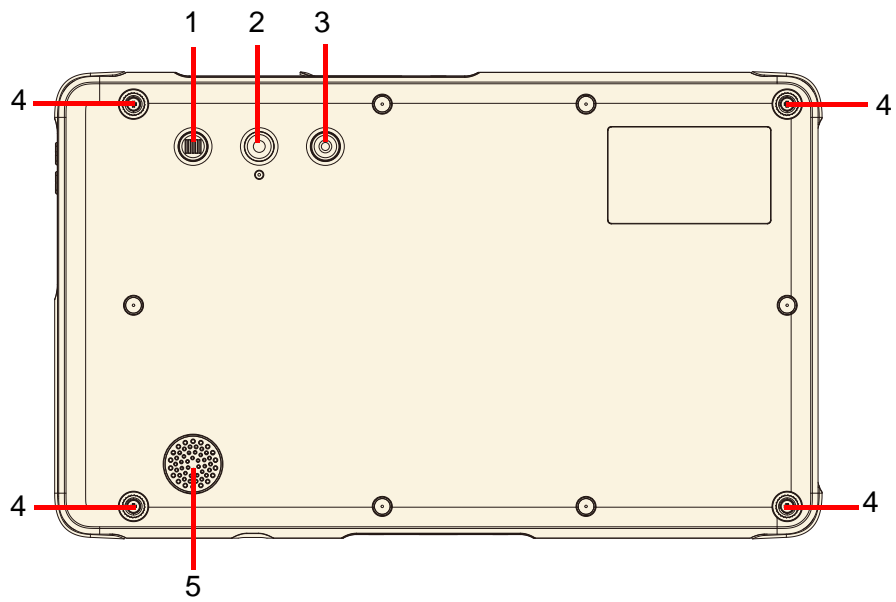
1.4 Exploring the AIM-37AT

1.4.1 Front View



No.	Component
1	Front Camera
2	Barcode scanner status LED
3	Power LED
4	NFC
5	Ambient Light Sensor

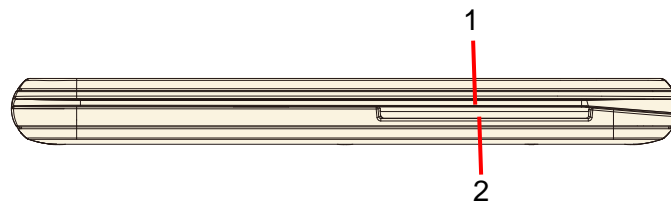
1.4.2 Rear View



No.	Component
1	Barcode scanner trigger or programmable button
2	Rear Camera with LED Flash
3	Power button
4	M6 screw holes
5	Speaker

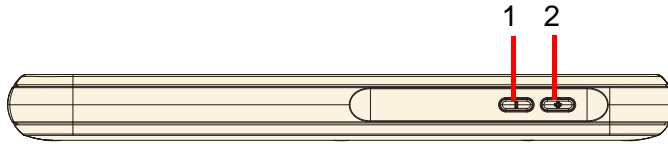
1.4.3 Right View

1.4.3.1 AIM-37AT-M SERIES



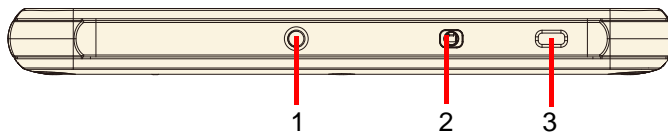
No.	Component
1	MSR (Magnetic Swipe Reader)
2	IC Card Reader

1.4.3.2 AIM-37AT-S SERIES



No.	Component
1	Volume Up
2	Volume Down

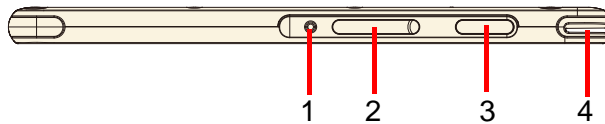
1.4.4 Left View



No.	Component
1	Reserved screw
2	Audio Combo Jack
3	Kensington Lock connector

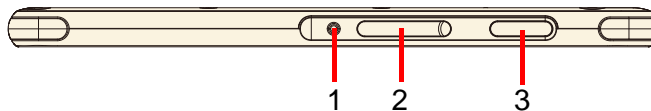
1.4.5 Top View

1.4.5.1 AIM-37AT-M SERIES



No.	Component
1	Guide pin
2	Micro SD slot
3	Barcode scanner
4	MSR slot

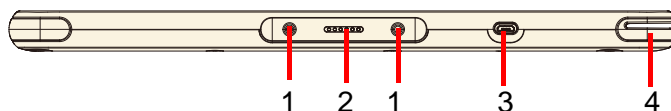
1.4.5.2 AIM-37AT-S SERIES



No.	Component
1	Guide pin
2	Micro SD slot
3	(Optional) barcode scanner

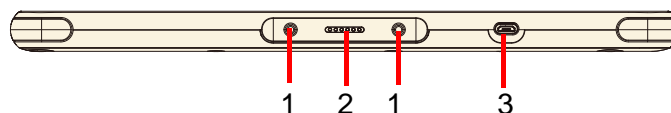
1.4.6 Bottom View

1.4.6.1 AIM-37AT-M SERIES



No.	Component
1	Guide pin
2	Pogo Pin (Reserved for future docking usage)
3	Micro USB
4	MSR slot

1.4.6.2 AIM-37AT-S SERIES



No.	Component
1	Guide pin
2	Pogo Pin (Reserved for future docking usage)
3	Micro USB

Chapter 2

Getting Started

2.1 Charge the Computer

To charge the embedded battery in AIM-37AT, connect the Micro USB adaptor on the AIM-37 computer.

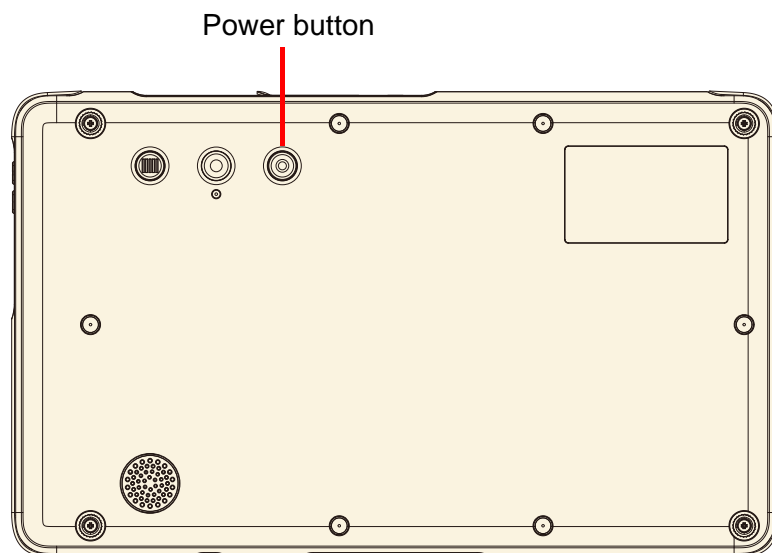


Note! Please charge for at least one hour when you use this computer for the first time.



2.2 Turn on the Computer

Push the Power Button (located at no. 3 of Section 1.5.2 Rear View.) for 3 seconds to start the computer.

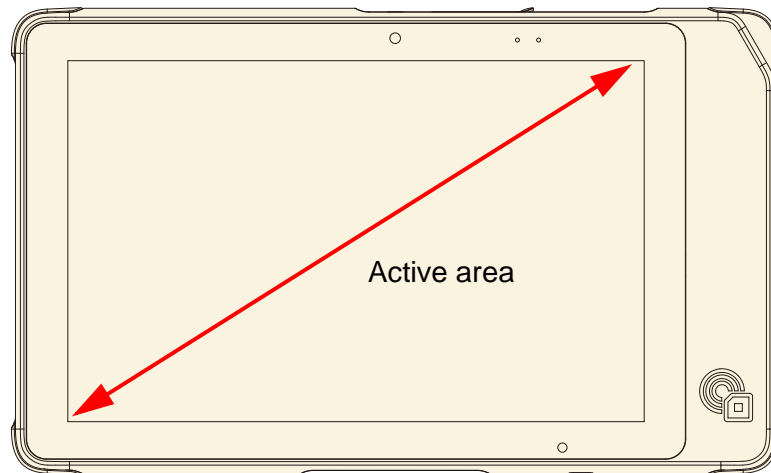


2.3 Sleep Mode

While the computer is running, push the Power Button for 1 second will move the equipment into sleep mode for power saving. Push the Power Button again will enable the backlight again.

2.4 Operate the computer

AIM-37AT is equipped with a 10.1" Capacitive Touch Panel. Use finger to touch the following Active Area to operate the computer.



2.5 LED Indicator Status

AIM-37AT is equipped with two LED indicators. The following tables show LED status of each indicator.

2.5.1 Power LED

AIM-37AT power LED has three colors: Red, Green, Blue.

- The Red LED blinks when internal battery capacity is below 10% to warn the user to charge.
- The Blue LED lights up when internal battery is being charged.
- The Green LED lights up when internal battery has been fully charged.

2.5.2 Barcode scanner status LED

When barcode scanner is installed on the computer, barcode scanner status LED (orange) blinks when data is received.

Chapter 3

Basic Setups

Note! WLAN access requires a separate purchase of an access point. Contact a wireless service provider for more information.



Note! Screens used in this manual are for illustrative purposes only. Actual screens may vary depending on your product version and pre-installed Operating System versions.



3.1 Windows 10 IoT Enterprise Basic Setups

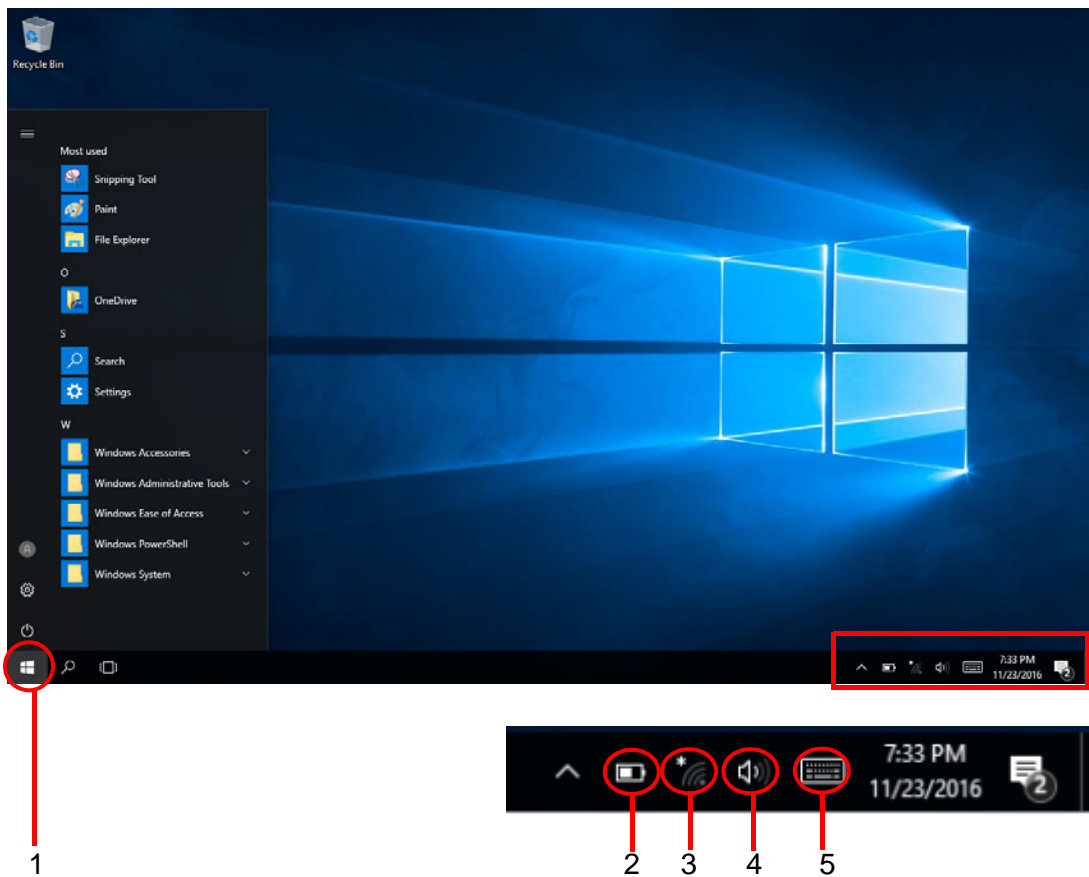


Figure 3.1 Windows 10 IoT Enterprise Home Screen

No.	Function
1	Program Launcher
2	Battery Status
3	Connect WLAN
4	Adjust audio volume
5	Open the On-screen keyboard

3.2 Android 6.0.1 Basic Settings

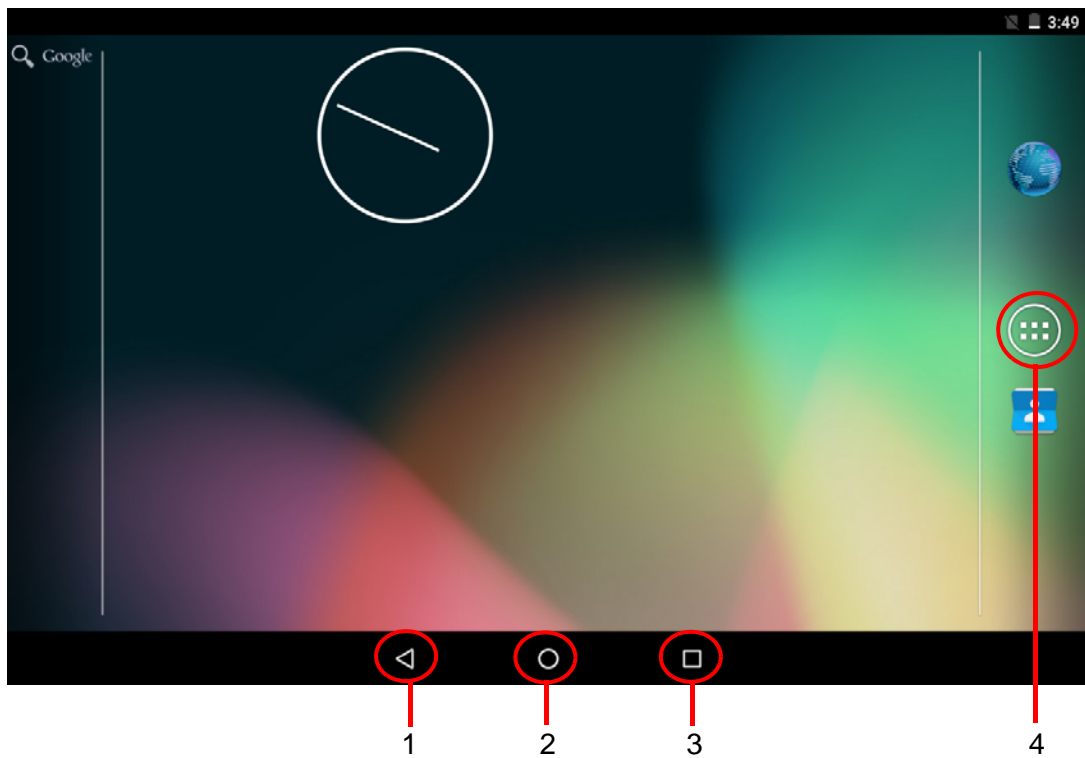
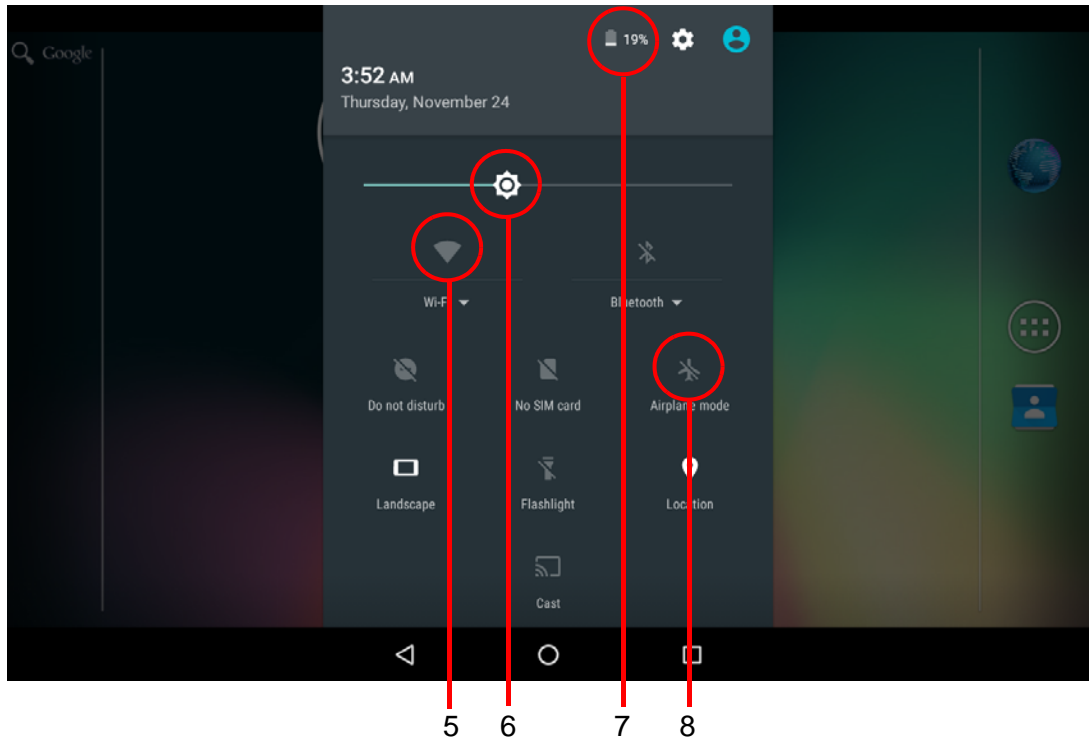


Figure 3.2 Android 6.0.1 Home Screen

No.	Function
1	Back
2	Home
3	Background Applications
4	Program Launcher

Tap top of the screen and scroll down for Settings menu

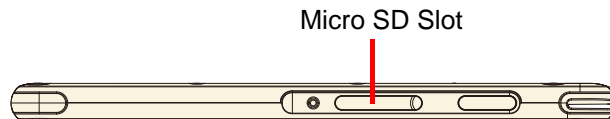


No.	Function
5	Connect WLAN
6	Adjust backlight
7	Battery Status
8	Connect Bluetooth

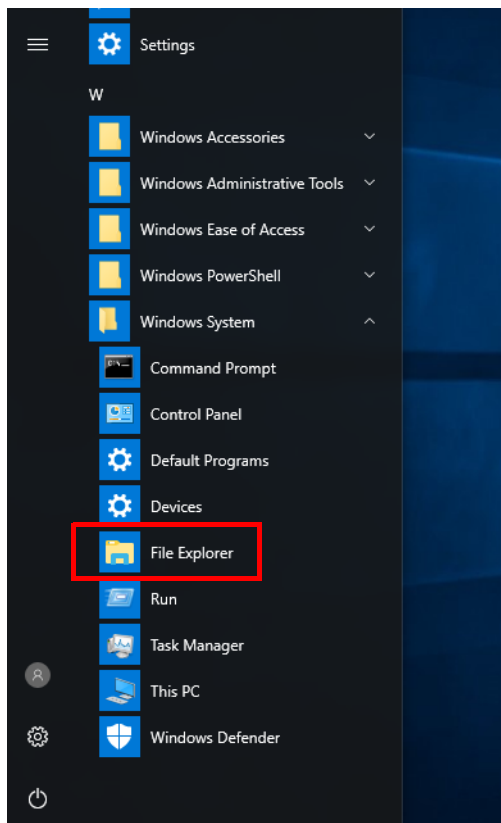
4.1 Installing Applications

There are multiple ways to install applications on AIM-37AT and this section shows the steps to install applications via Micro SD cards.

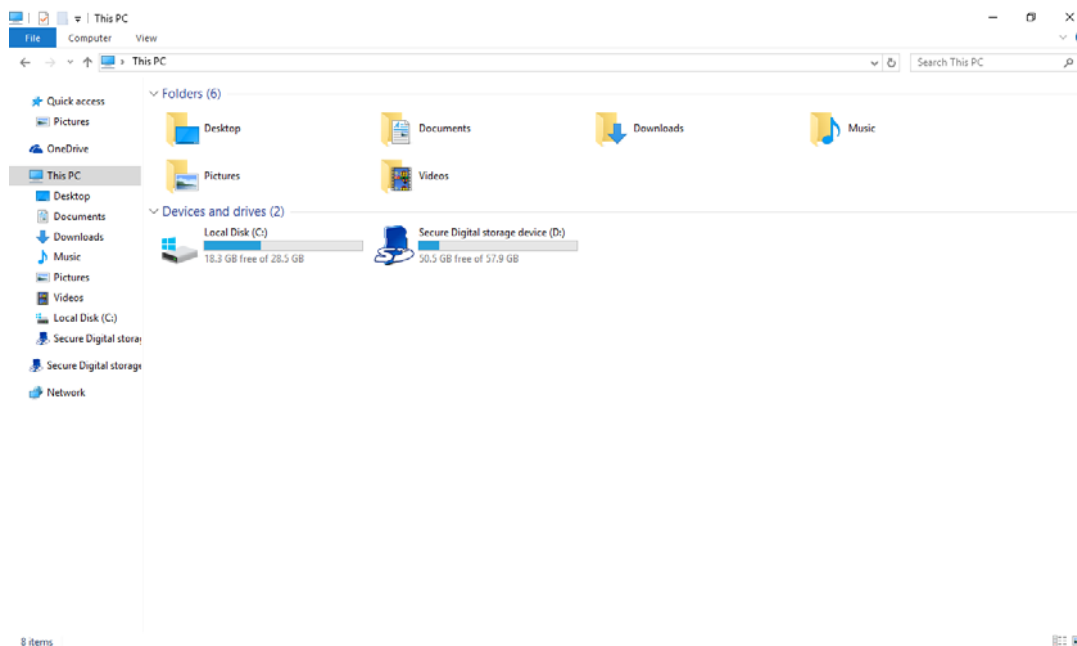
1. Before installation, please ensure your Micro SD card has been correctly formatted with FAT32 file system.
2. Copy .exe (Windows) or .apk (Android) on the Micro SD card.
3. Open the Micro SD card slot on the top of the device and inset the card.



4.1.1 Install applications with Windows 10 IoT

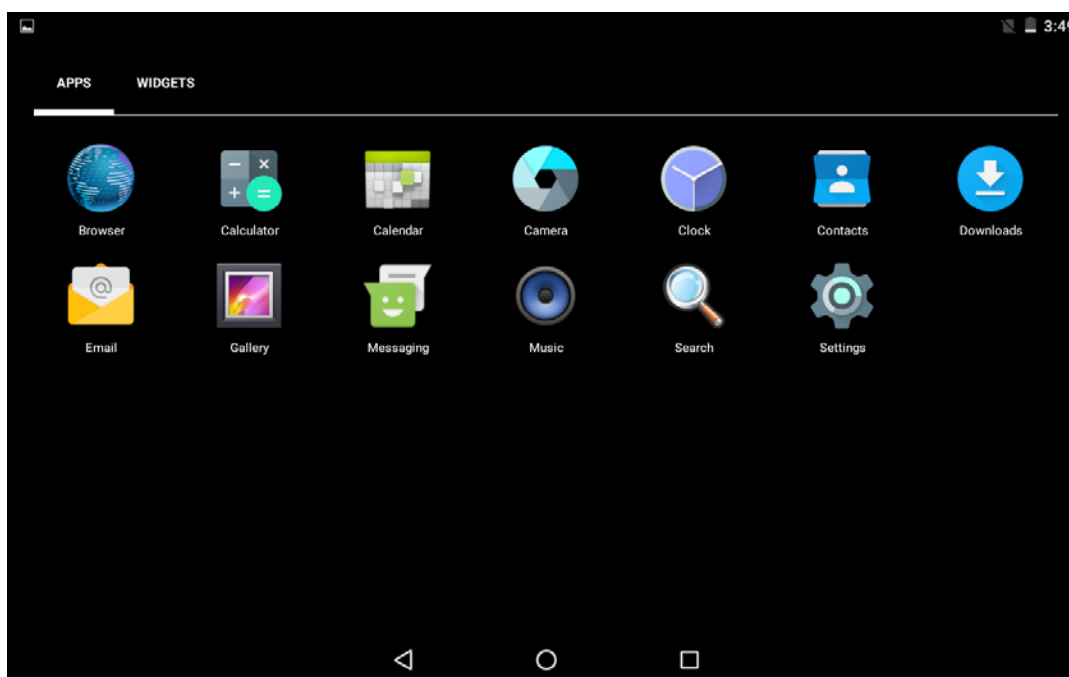


- a) Go to Program Launcher
- b) Launch File Explorer and will find Secure Digital storage device (D:)

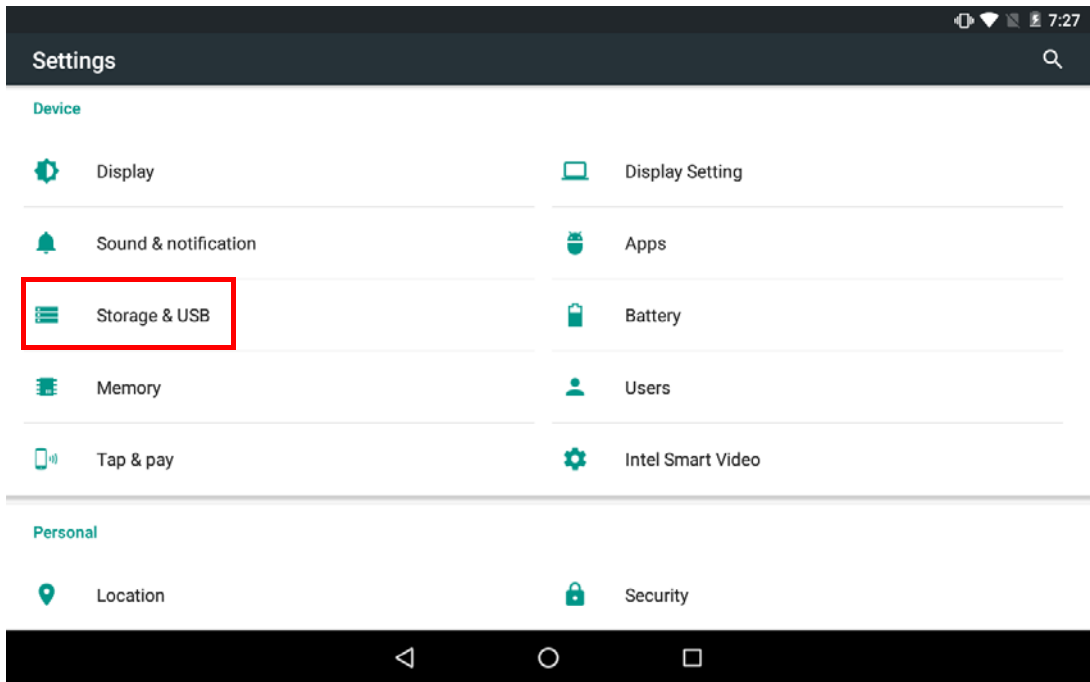


- c) Tap Secure Digital storage device (D:) to find .exe executable file.
- d) Tap .exe file to install the application.

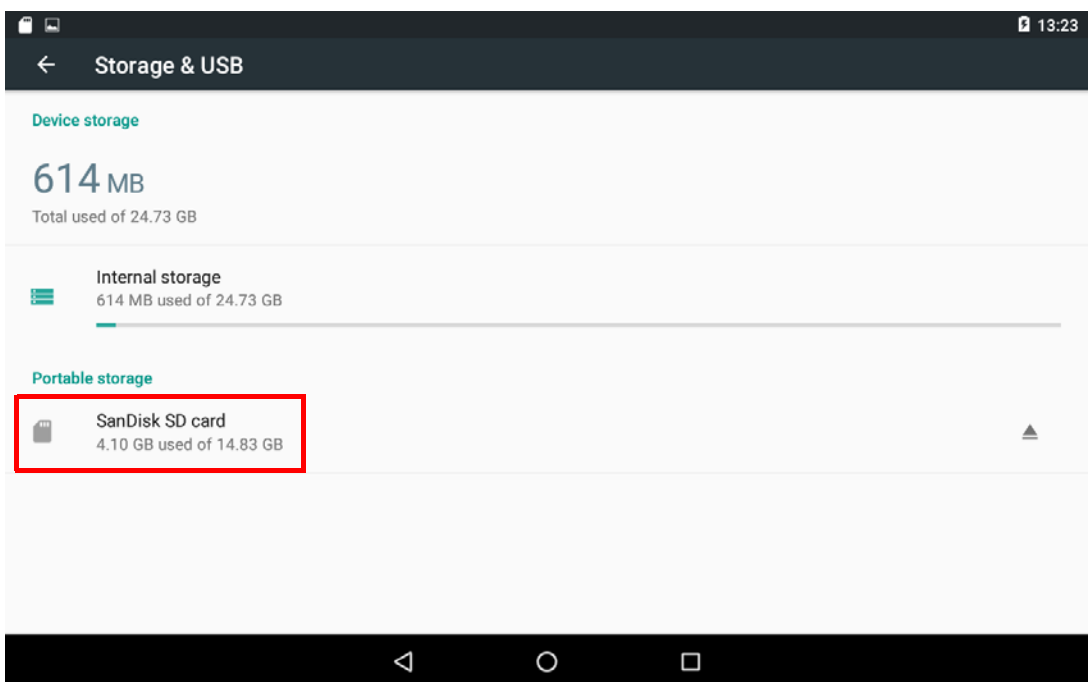
4.1.2 Install applications with Android



- a) Go to Settings

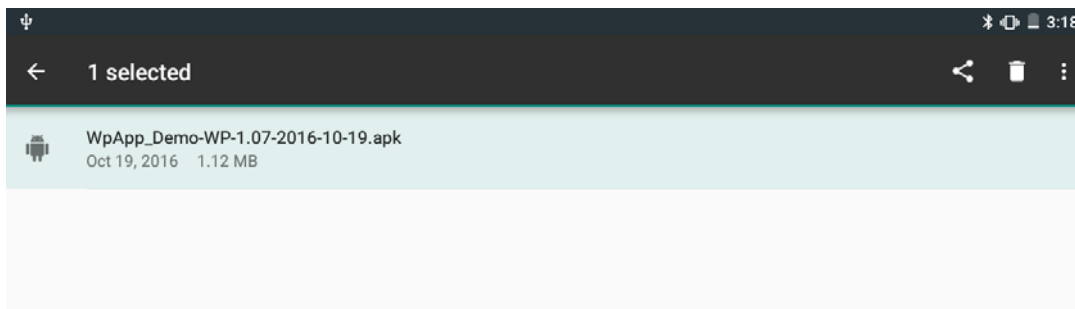


b) Go to Storage & USB. Find your SD card.

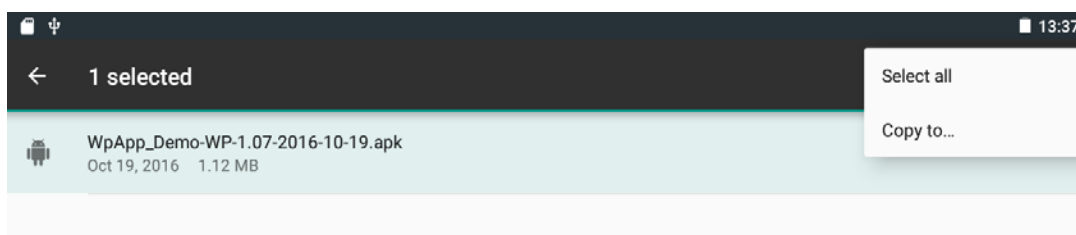


c) Find the APK you want to install. Tap it until highlighted.

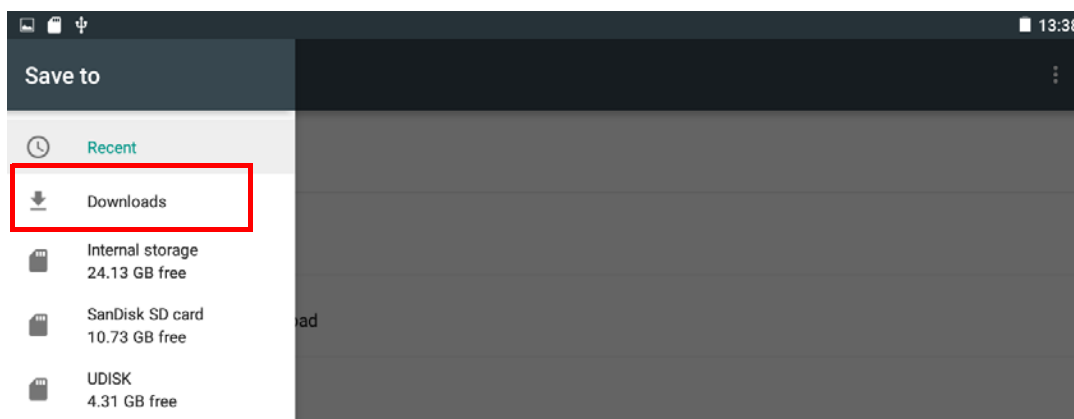
Then tap the Options at top right corner of the window.



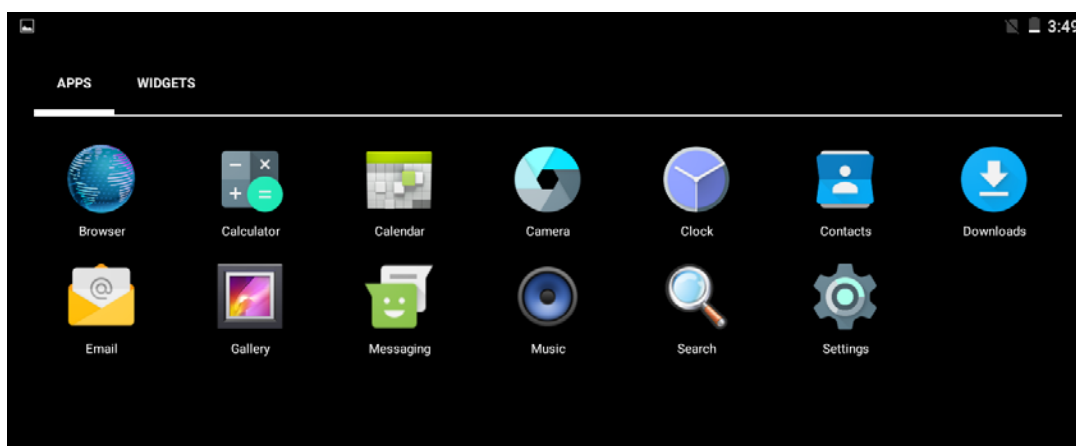
d) Select Copy to...



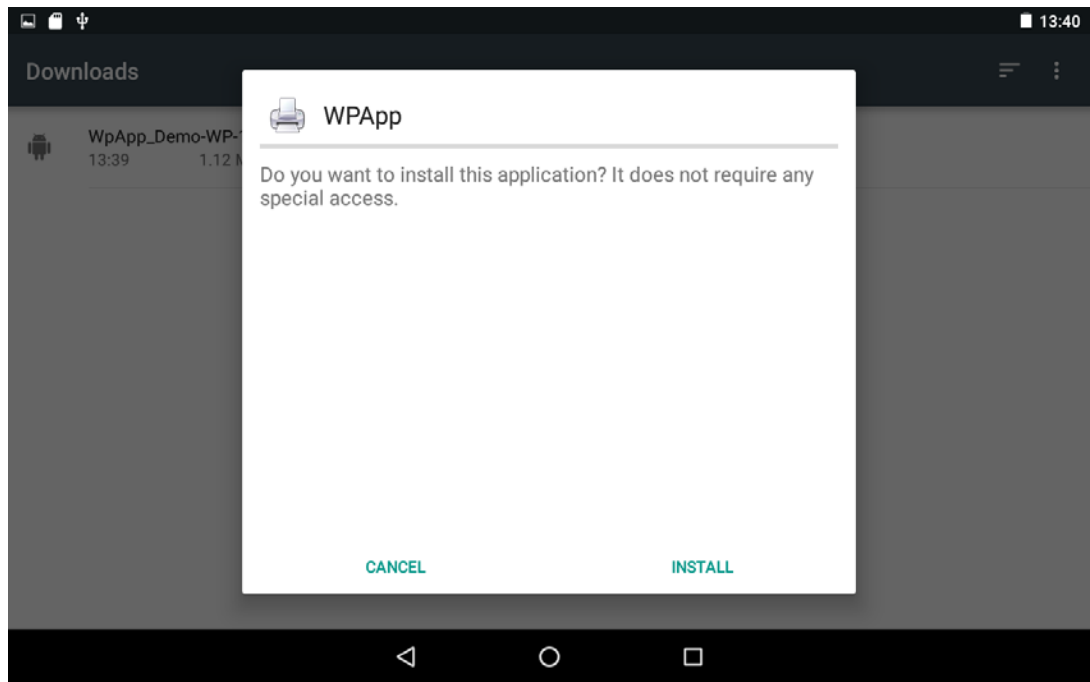
e) Save to Downloads



f) Go back to Downloads



g) Tap the APK to launch it.



Chapter 5

Maintenance

5.1 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.

5.2 Cleaning the AIM-37AT

1. Turn off the device 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 LED does not light up when DC power plug in.
4. System does not respond to touch behaviors.

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.

5.4 ENERGY STAR

An ENERGY STAR qualified computer delivers substantial savings over a conventional computer. Desktop, integrated desktop, and notebook (laptop) computers, workstations, small-scale servers, and thin clients are all eligible to earn the ENERGY STAR, and those that do are now more efficient than ever.

It is an honor for Advantech to provide you such products.

What is ENERGY STAR?

ENERGY STAR is a U.S. Environmental Protection Agency (EPA) voluntary program that helps businesses and individuals save money and protect our climate through superior energy efficiency.

The ENERGY STAR program was established by EPA in 1992, under the authority of the Clean Air Act Section 103(g). Section 103(g) of the Clean Air Act directs the

Administrator to "conduct a basic engineering research and technology program to develop, evaluate, and demonstrate non-regulatory strategies and technologies for reducing air pollution."

In 2005, Congress enacted the Energy Policy Act. Section 131 of the Act amends Section 324 (42 USC 6294) of the Energy Policy and Conservation Act, and "established at the Department of Energy and the Environmental Protection Agency a voluntary program to identify and promote energy-efficient products and buildings in order to reduce energy consumption, improve energy security, and reduce pollution through voluntary labeling of or other forms of communication about products and buildings that meet the highest energy efficiency standards."

For more information, please visit www.energystar.gov

The product is to enter display sleep mode after 4 minutes and computer sleep mode after 10 minutes in default, to wake it from sleep mode, simply press the power button on the back cover, while under sleep mode it allows the device to save 80% or more energy.

Power Management System:

Default mode is on balanced, after idle for 4 minutes, it will automatically shuts its Monitor and enter sleep mode if idle for more than 10 minutes.

Balanced (Default)	Idle 4 min. closes screen, 10 min. enters sleep mode.
High performance	Never idle and never enters sleep mode.

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www.advantech.com

Please verify specifications before quoting. This guide is intended for reference purposes only.

All product specifications are subject to change without notice.

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