AT911 PLUS USER GUIDE

User Manual Guide

Before You Begin

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Some contents in the manual may be slightly different from the actual device.
The contents in the manual is subject to change without notice.

This manual is written for the person who is responsible for installing, configuring, and maintaining the AT911 PLUS. It provides you with information about the features of the AT911 PLUS, and how to install, configure, operate, and maintain it.

Safety information

Your safety is extremely important. Read and follow all warnings and cautions in this document before you handle and operate ATID equipment. If you do not follow the safety warnings and cautions, you might be seriously injured, and the equipment and data are also might be damaged.

- ■ WARNING
  A warning requires you must pay attention to the operating procedure, practice, condition, and statement strictly, or might be injured seriously.

- ◆ CAUTION

  A caution alerts you that you must be observe strictly when you operating procedure, practicing, configuring, for preventing from damage and destruction of equipment, and loss of data.

- ● NOTICE
  A notice provides you the information which you must needs while you are using AT911 PLUS.

Chapter1. Caution when using

Before you handle and operate your device, please read through and familiar with the contents of this manual.

1. How to use the battery correctly

- When you dropped the main body or battery in water, please do not put it on the stove or heater for drying. Just keep it in natural temperature or contact with purchase place.
- Please do not take the metal object to approach to the terminal of battery.
- If you do not use the battery for a long time after charging, please keep it at room temperature.
- According to the life of battery and processing time of its using, the buffering time can be shortened. In this case, please contact your dealer
- You have to charge the device with the provided adaptor from factory.

2. Caution when using

- User careless or products repair might damage the stored data. Manufacture is not responsible for this damage, so important data should be kept separately.
- If you have problem, do not try to repair or disassemble the product arbitrarily, please contact customer service center.
- Do not use your where have electromagnetic wave or the risk may occur such as hospital, plane so on.
- A high temperature or high humidity environment will cause trouble, please note that.
- Please do not using another sharp object to touch the screen, otherwise it might get damaged or not working properly.
- If smell odors, occurs smoke or noise during use product, immediately disconnect the charger and off the power, then Please contact with customer service center
- If you have any other questions during use, please contact the customer service center

Chapter 2. Products compositions

AT911 PLUS, Android OS based device, can support barcode scanner, RFID tag reader, wireless communication modem, camera etc. and can be widely used in a variety of work environments.

1. Package components

After opening the product packaging box, check the items listed as below:

1) PDA
2) Standard battery pack for the body
3) Adaptor
4) Sync Cable

If there is missing or defective products as below, please contact the customer support center of your place of purchase

1.

2.

3.

4.

< In the Packing box >

2. Name of each part

<Top Side View>

Receiver

Charge, Wireless Statues LED

LCD Touch Screen

KEY PAD (Menu, Home, Scan, Back, Search)

KEY PAD

<Left, Right Side View>

Ear Phone Jack

Power Key

Side Key

<Front View>

Camera

Barcode Scanner

UHF RFID Antenna

<Back Side View>

USB Synchronization / DC Power Port

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Chapter3. Basic Functions

1. Power and battery

PDA is composed of main battery. The Main battery supplies the power to the system and RAM which can save and conserve the data.

Main Battery: 3.7V 2,200mA Lithium-ion

Attach the main battery to the back side battery compartment of the PDA.

Push the batter lever inside so that the battery is firmly attached to the PDA.
"Refer to 1.1 Battery attaching and detaching"

Connecting adaptor to the PDA adaptor connecting jack, and check if the "Power LED" is Red, and then charging the power completely until it turns into Green.

● **Note:**
When the desktop screen shows after starting the system, press the <power> button for a couple of seconds can reduce the recharging time.

1.1 Detaching and Attaching Main Battery

➢ **Detaching Battery**

These images as below, shows the back bottom of the PDA.
Slide the battery latch to the right (UNLOCK side), and then lift the main battery out of the compartment along both sides of groove.

Battery Locking Lever

➢ **Attaching Battery**

Put the top part of battery into the upward groove, and then press down the bottom of battery into the battery compartment, slide battery latch to the left (LOCK side) to attach battery firmly.

1.2 Charging

You have to charge the battery via dedicated adapter, which provided from the factory.
"Power LED" is Red while charging or is Green when charged completely. When fully charged, the LED light will be turned off.

➢ **Connecting Adapter**

1. Plug in the adapter into the 220V socket.
2. Connect the Mini USB jack to the PDA's "USB connecting jack".
3. When "Power LED" shows red light, it means that the device is being charged.

◆ **Caution:**
   You must charge the device using dedicated adapter that is provided from the manufacturer, or your device might get damaged.

1.3 Low power mode (Sleep mode)

When the system is started and shows the main desktop screen or other programs are running, you can enter into the low power mode (sleep mode) by using the power button. If you want to use the device again, press the power button again and turn on the system

➢ **Use low power mode (sleep mode) with Power button**

Enter low power mode (sleep mode):
1. If the power button is pressed when the device is on, the screen will be turned off and the device will enter the low power mode (sleep mode).

Cancel low power mode (sleep mode)
1. If the power button is pressed when the device is off, the screen will be turned on and the device will be turned on.

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➤ **Use Automatic low power mode (sleep mode)**

If the user does not use the device for a while, system is entered into the low power mode (sleep mode) automatically. You can change the setting time in control panel and power management as shown below. Using proper time-out setting prevents the system is on a long time without the user and extends hours of battery use.

[Menu] -> [Settings] -> [Display] -> [Sleep]
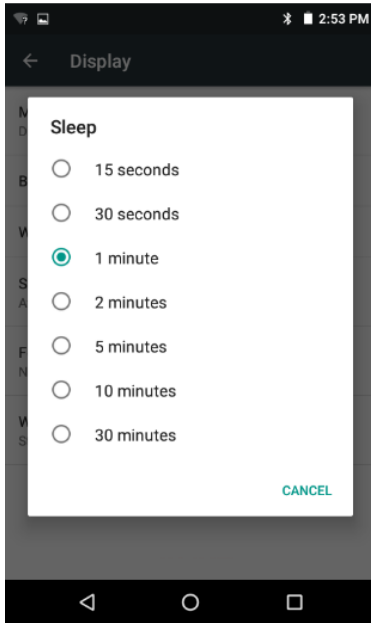
1.4 Batter replacement

If the batteries are damaged or out of its life, buy new batteries to use.

◼ Warning!
Discard the dead batteries to the designated place

2. System reset (Cold reset)

If the system is not responding or application program does not work, restart the system by using reset function.

System reset is used to reboot and initialize the hardware completely. The installed programs copied files, and registry values will be preserved even after the system reset

[Cold Reset Steps]
Push power button until system is reboot.

[Result]

● The system will restart.
● The operating system will be loaded again when restarting.

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3. Use Micro SD, SIM, SAM Card

The image below shows the back side of the PDA when the main battery is removed.
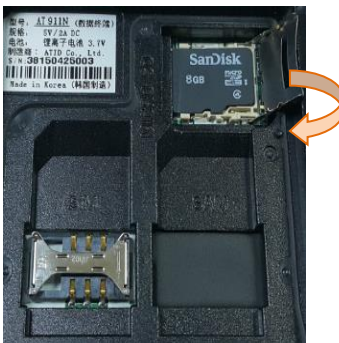There are 1 SIM card slot, 1 Micro SD memory card slot as shown below.

Micro SD Memory Card Slot

Micro SD Memory Card
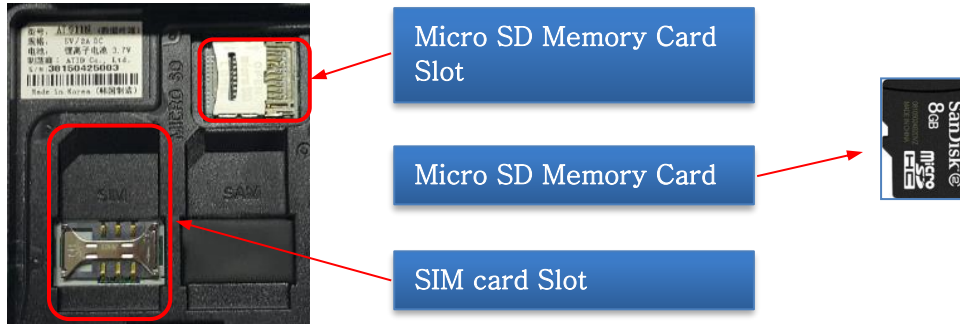
SIM card Slot

3.1 Micro SD Card Installation

Step 1)
Slide the cover of Micro SD card slot to the right to release the lock.

Step 2)
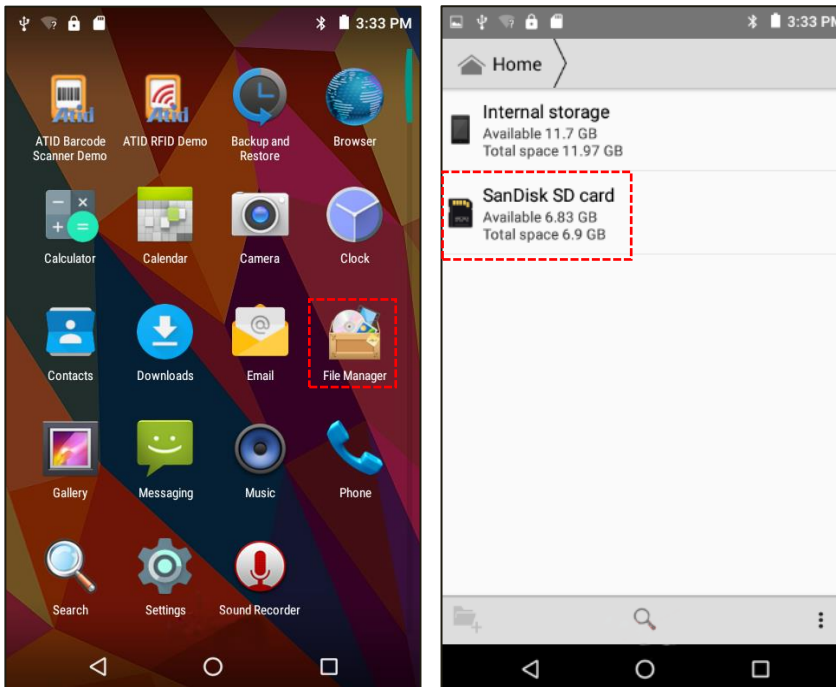Lift up the top of the slot cover to open.

Step 3)
Place the SD memory card into the slot and close the cover.

Step 4)
Slide the cover to the left to lock the slot.

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When the SD memory is selected from the File Manager after installing Micro SD memory card, it is shown as below.

3.2 SIM Card Installation

Below picture is the screenshot after installing the SIM card.
Place and insert the SIM card so that it fits the slot shape.

4. System settings
4.1 Set Screen Brightness
Brightness of the screen affects the power consumption the most, so it is recommended to be set as required by the user.

[Setting the screen brightness]

1. [Menu] -> [Settings] -> [Display] -> [Brightness Level]

2. Display Options

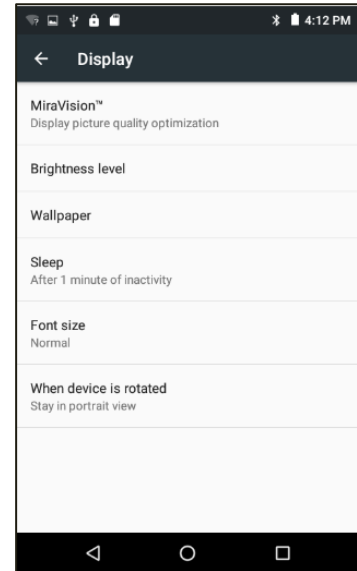**MiraVision** : Miravision is a suite of display-enhancing technologies
Brightness Level : Adjust the screen brightness.
Wallpaper : Choose the wallpaper.
Sleep : Adjust the time period to enter into the sleep mode
Font size : Adjust the font size of PDA.
When device is rotated : Set the Auto-rotate screen function.
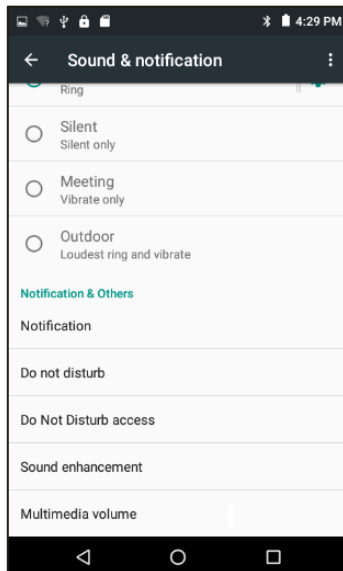
4.2 Set sound volume
The volume is set to 80% when it is dispatched. The user can set the different features of sound settings from **[Menu] -> [Settings] -> [Sound & notification]**.

Volumes and sound setting
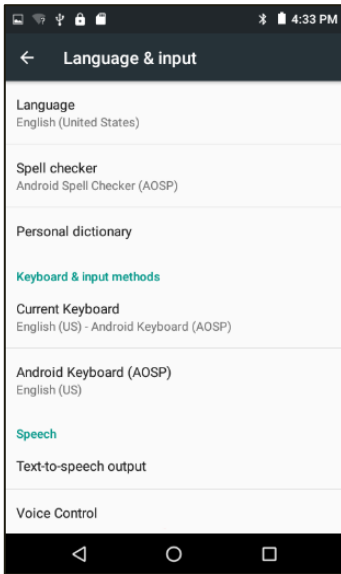[Menu] -> [Settings] -> [Sound & notification] -> [Multimedia volume]

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5. Use keypad

Keypad is an input method editor that inputs numbers or alphabetic characters easily.
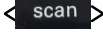
5.1 Use keypad

To change the current input language, follow the steps below.
[Menu] -> [Settings] -> [Language & input]

5.2 Keypad button execution
Describe the Keypad Function.

Keypad	Function description
< ☰ >	Menu key
< ⌂ >	Home button.
< scan >	Contains keyEvent values of KEYCODE_SOFT_RIGHT.
< ↩ >	It is used to move back to previous state.
< 🔍 >	It is used for searching

Chapter 4. Use Peripheral Device

This chapter describes various option modules for use with AT911 PLUS. Please refer to description of necessary option modules and use them.

1. Barcode scanner
The barcode scanner of AT911 PLUS can recognize 1D, 2D barcode.

1.1 Read 1D or 2D barcode
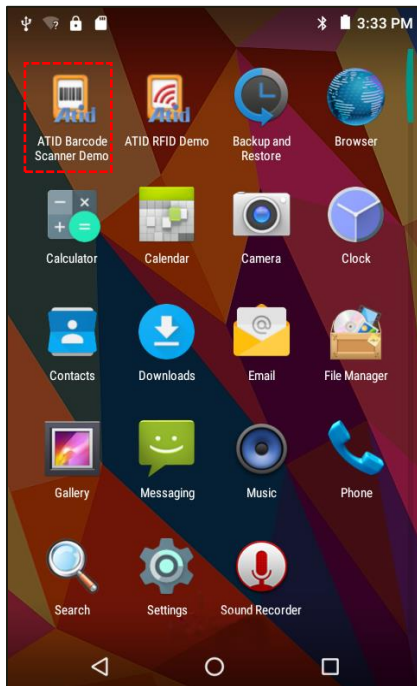
[Correct barcode reading]
    1. The small barcode should be closer to the device. This device is read at the distances of 40~300mm. If the reading not working well, please adjust angle or distance.
    2. Laser beam appears as a dark red line when shined to barcode label.

[Incorrect barcode reading]
1. Laser beam should cross the barcode.
2. If only part of the barcode is shined by the laser beam, it won't be recognized.

1D

Incorrect Scanning Positions

Positioned too far to the right. Will not read entire bar code.

Too angled; cannot read the entire bar code.

Bar code will not read. The scanner should be positioned perpendicular to the bar code bars.

2D

2. WLAN connection

This device can communicate wireless data by 802.11b/g/n radio and describes access pointer and the contents related to wireless communication. AT 911 PLUS device supports TCP/IP network protocol and directly use host computer and TCP/IP in TCP/IP network. When shipping goods, wireless LAN is always set to off

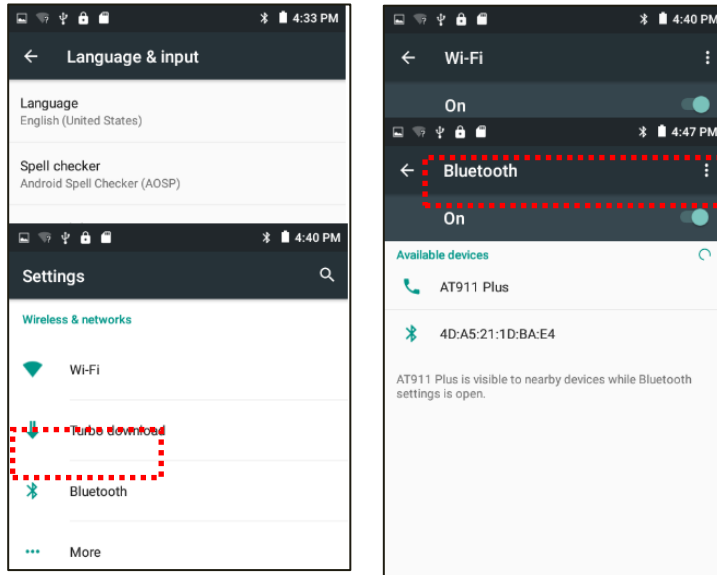## 2.1 Turn Wi-Fi on / Turn Wi-Fi off

[Menu] -> [Settings] -> [Wi-Fi]
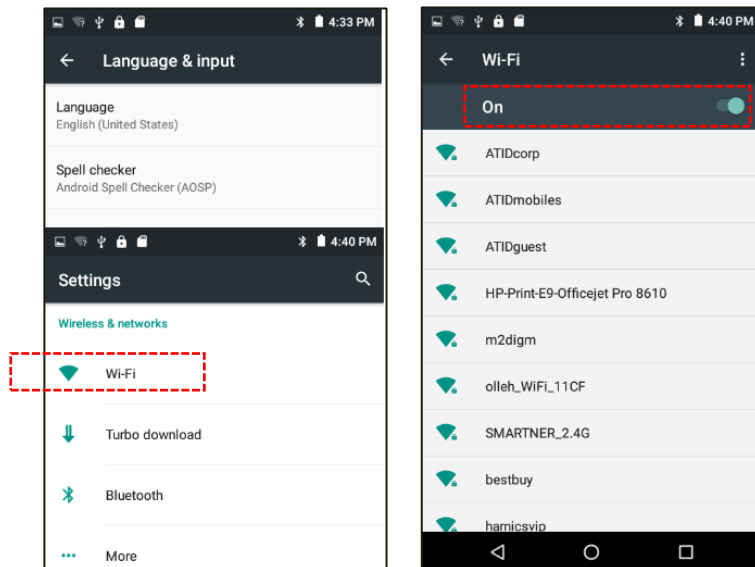
3. Bluetooth

The below contents are related to Bluetooth function of AT911 PLUS. AT911 PLUS supports Bluetooth Classic and BLE 4.0 both of them.

3.1 Turn on/off Bluetooth

[Menu] -> [Settings] -> [Bluetooth]

AT911 PLUS is visible to nearby Bluetooth devices while Bluetooth setting is open.

4. Use Camera

The products are installed with 5.0 mega pixel cameras and have the functions of screen brightness, resolution adjustment and screen captures

4.1 Use Camera
[Menu] -> [Camera]
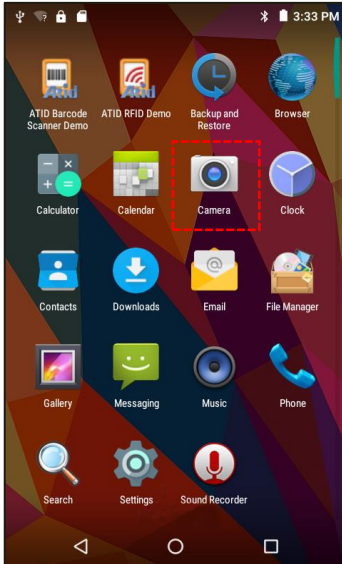
Start Camera Application

Camera screen

5. Use UHF

5.1 UHF RFID Program

[Menu] -> [ATUHF Demo]

Start ATID RFID Demo program

ATID RFID Demo screen

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Chapter 5. Appendix

Product Specifications

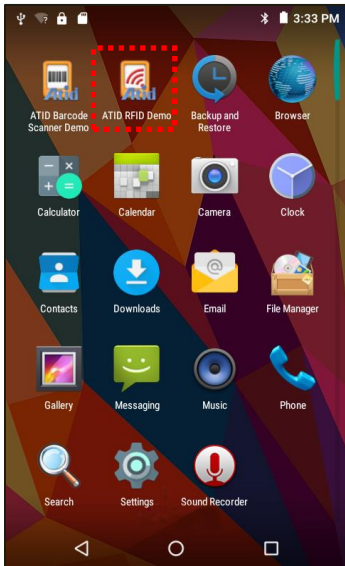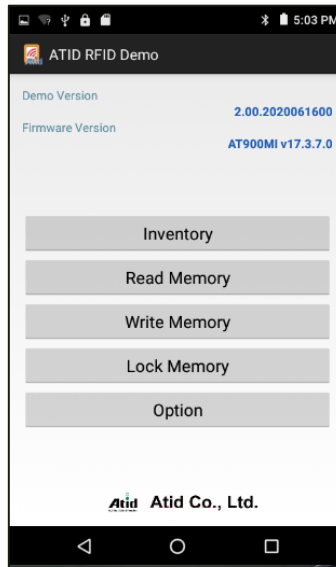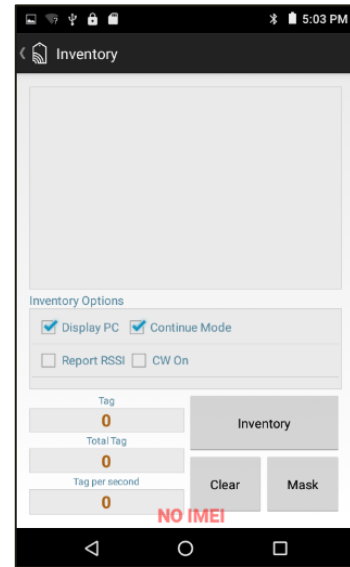| Physical Characteristic and Operating Environment	
Appearance	145mm(L) X 75mm(W) X 129mm(H)
Weight	259.5g (PDA only, without Battery)
Operating temperature	-0℃ ~40℃
Storage temperature	-30℃ ~70℃
Humidity	95% Non-condensing
Drop	1.5m drop to concrete

Product Specifications	
Process	Qurd-Core Cortex-A53, 1.45GHz
Operating system	Android 6.0
Memory	ROM 8GB / RAM 1GB
Display	4" WVGA TFT LCD 480Wx800L with Backlight
	Capacitive Touch Screen
Audio	Speaker, Earphone jack, Microphone
Communication port	USB 2.0
Expansion slot	1 Micro SD slot (supports SDHC), 1 SIM slot
Keypad	None
Notification	Speaker, LED

Power System	
Battery	Lithium ion 3.7V Above 2,200mAH(rechargeable)
Power Adaptor	Input AC 110~240V Output DC 5V 2A

Network Characteristic	
Radio	WCDMA, GSM GPRS EDGE, 4G FDD / TDD, BT
Wireless LAN	WLAN (802.11 b/g/n compliant)
Antenna	Embedded LAN & WAN

Data Collection processor	
Scanner	1D Laser, 2D Imager Scanner
Camera	CMOS 13M Pixel Auto Focus with Flash

UHF 900MHz tag reader	
Frequency	902MHz - 928MHz
Reading range	0m ~ 6m(According to Tag & Environment) 0m ~
Writing range	3m(According to Tag & Environment)
Antenna Gain	4 dbi

Speed	62.5 kbps
RF output	0dBm ~ 30dBm, 3dB step, 1W EIRP
Protocol	EPC Gen2 ISO 18000 6C, ISO 18000(6B option)
Multi reading	Anti-collision

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

Specific Absorption Rate (SAR) information:
This Portable reader meets the government's requirements for exposure to radio waves. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons regardless of age or health. FCC RF Exposure Information and Statement the SAR limit of USA (FCC) is 1.6 W/kg averaged over one gram of tissue. Device types: Smart phone (FCC ID: VUJAT911) has also been tested against this SAR limit. This device was tested for typical body-worn operations with the back of the phone kept 0mm from the body. To maintain compliance with FCC RF exposure requirements, use accessories that maintain a 0mm separation distance between the user's body and the back of the phone. The use of belt clips, holsters and similar accessories should not contain metallic components in its assembly. The use of accessories that do not satisfy these requirements may not comply with FCC RF exposure requirements, and should be avoided.

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