AT911N USER GUIDE

Series Highlights:

- Android 4.2.
- ALLWINNER   A20 Dual-Core 1GHz
- Memory RAM 1GB / ROM 8 GB
- WVGA TFT LCD 480W x 800L with backlight
- UHF 900MHz GEN2, ISO/IEC 18000-6C
- 1D and 2D IMAGE Laser Barcode Scanner
- WLAN(IEEE802.11 a/b/g/n)
- GSM/GPRS/WCDMA/HSDPA/HSPA+/3G
- Bluetooth Class II, v4.0
- 5.0M Camera
- GPS with internal antenna

User Manual Guide

Before You Begin

This user manual is protected by copyright.
This manual is published by ATID Co., Ltd. and can only be copied, edited or distributed by ATID.

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 AT911N. It provides you with information about the features of the AT911N, 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 using AT911N.

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 charging 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 has 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 causes trouble, Please note that.
- Please do not using other sharp object to touch the screen, otherwise it might be 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

AT911N, 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 >

5

2. Name of each part

Receiver

Charge LED
WLAN/3G LED

LCD Touch Screen

Reset Key

MIC

KEY PAD

< Front >

Ear Jack

UHF

Power Key

Scan Key

Side Key

GUN

< Side view >

Scanner

Camera

Antenna

< Front >

DC Power Port

USB Synchronization/

DC Power Port

< Bottom >
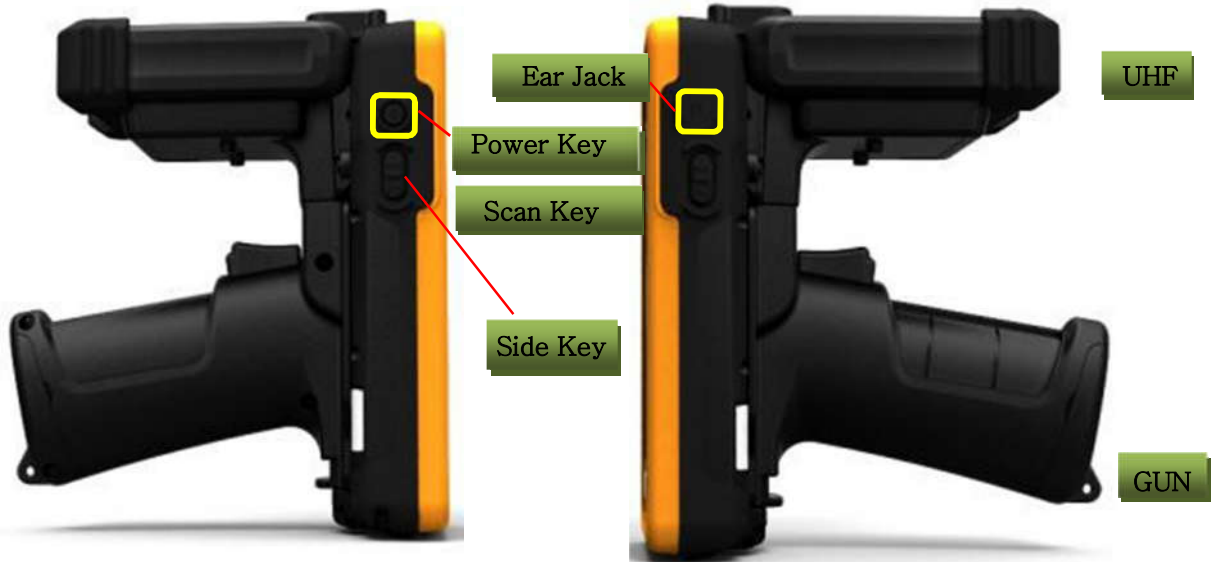
Chapter3. Basic Functions

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 2,260mA Lithium – ion

Attach the main battery to the back 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.

8

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 to 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.

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

If the user doesn't use the device for a set period of time, system enters 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 mode]
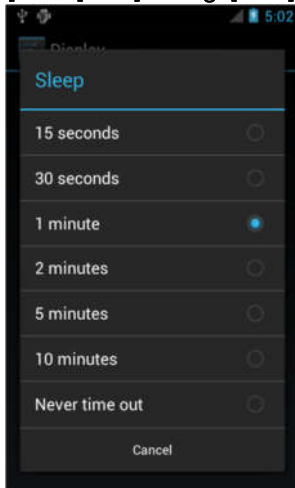
1.4 Batter replacement

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

■ **Warning!**
Discard the dead batteries to the designated place

10

2. System reset (Cold reset)

If the system is not responding or application program doesn't 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
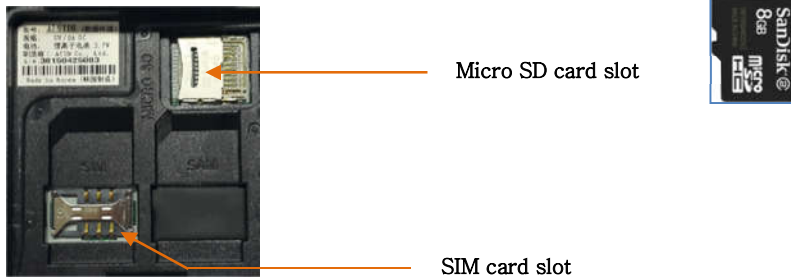
[Cold Reset Steps]
Push and release the reset button.

[Result]

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

3. Use Micro SD, SIM, SAM Cards

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 card slot

SIM card slot

3.1 Micro SD Card Installation

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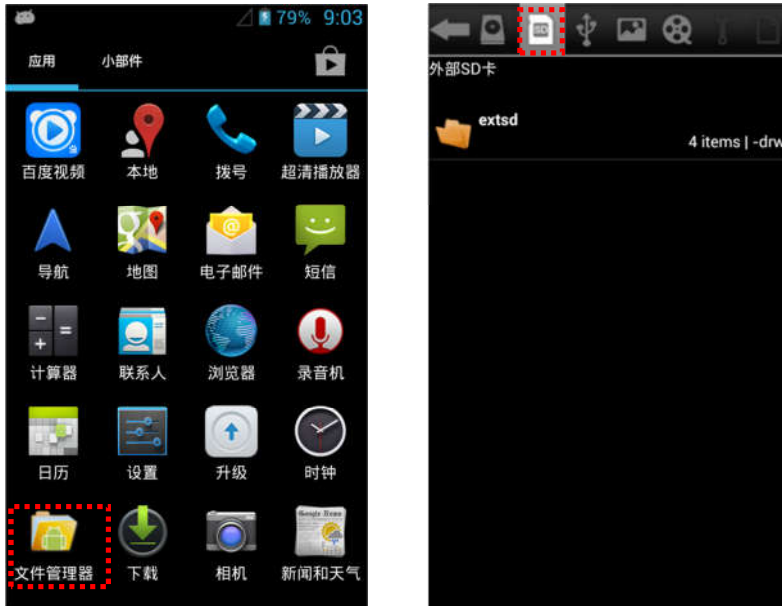

Lift up the top of the slot cover to open

Place the SD memory card into the slot and close the cover

Slide the cover to the left to lock the slot.

12

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

3.2 Installing SIM card

Below 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]

Brightness: Adjust the screen brightness.
Wallpaper: Choose the wallpaper.
Auto-rotate screen: Set the Auto-rotate screen function.
Sleep mode: Adjust the time period to enter into the sleep mode
Font size: Adjust the font size of PDA.

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]**.

Volumes and sound setting
[Menu] -> [Settings] -> [Sound]

14

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 AT911N.Please refer to description of necessary option modules and use them.

Option Module of AT911N
    AT911N device provides the options as below according to the purpose of use. The Option Modules below are other specifications outside AT911N, so when buying the device, you should confirm it to buy.
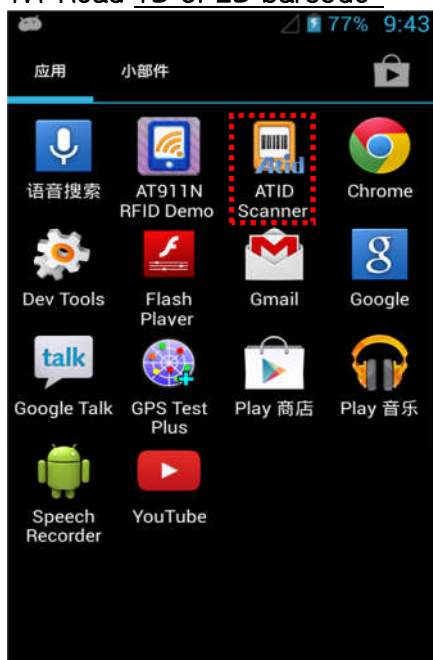
The types of options provided in AT911N

    1) Barcode reader
       -. 1D Laser Barcode Scanner
       -. 2D Imager Barcode Scanner
    2) Wireless LAN – 801.11 a/ b/g/n
    3) Bluetooth
    4) UHF 900MHz RFID   ISO18000 6C
    6) GPS Module
    7) Phone
    8) Camera

1. 1D and 2D barcode scanner
The barcode scanner which can recognize 1D, 2D barcode can be installed on this device.

1.1 Read 1D or 2D barcode

16

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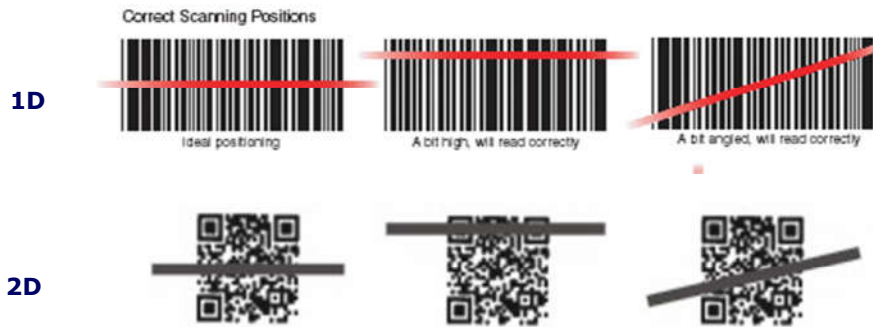
[Incorrect barcode reading]
   1. Laser beam should cross the barcode.
   2. If only part of the barcode is shined by the laser beam, it won't be recognized.

2. WLAN connection
This device can communicates wireless data by 802.11b/g radio, and describes access pointer and the contents related to wireless communication. AT 911N 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 <u>Turn Wi-Fi on / Turn Wi-Fi off</u>

[Menu] -> [Applications] -> [Settings] -> [Wi-Fi]

3. Bluetooth

The below contents are related to "AP6330 COMBO" Module which is used in AT911N.

3.1 Turn on/off Bluetooth

[Menu] -> [Applications] -> [Settings] -> [Bluetooth]
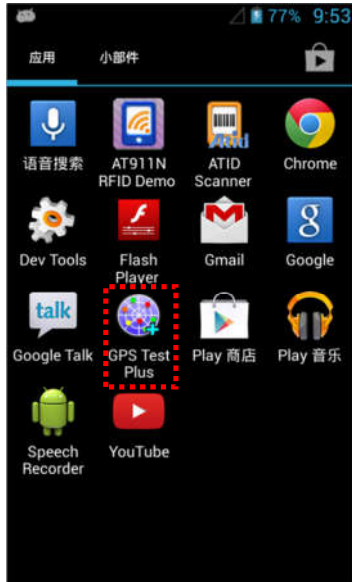
1. Start Bluetooth function

4. GPS Module

The device can be installed with GPS system as option, and GPS Module will be installed on top of AT911N into Built-in shape.

4.1 Start GPS Demo Program

[Menu] -> [Applications] -> [GPS Test]

GPS Test Start the program.
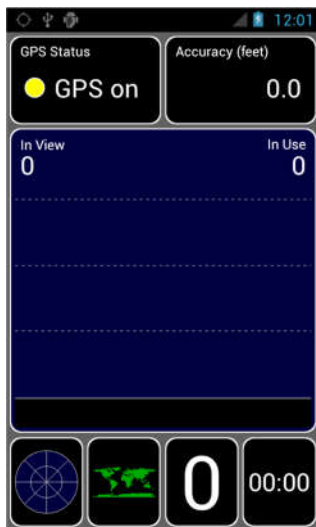
Confirm GPS reception Data:
1. Confirm whether GPS reception is normal in the open place.
2. Actual reception times of GPS Data may be different according to environment (about 3~5 minutes) If the signal is received previously, it can receive the GPS Data quickly.

GPS Test Screen.

20

5. Use Camera

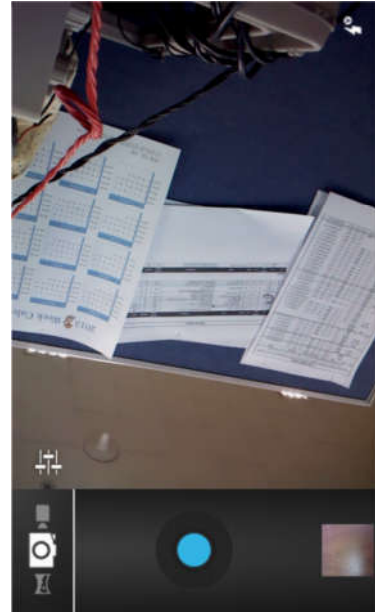The products are installed with 5.0 mega pixel cameras and have the functions of screen brightness, resolution adjustment and screen captures

5.1 Use Camera
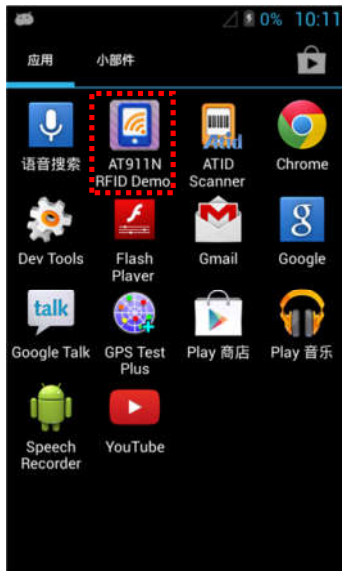[Menu] -> [Applications] -> [Camera]

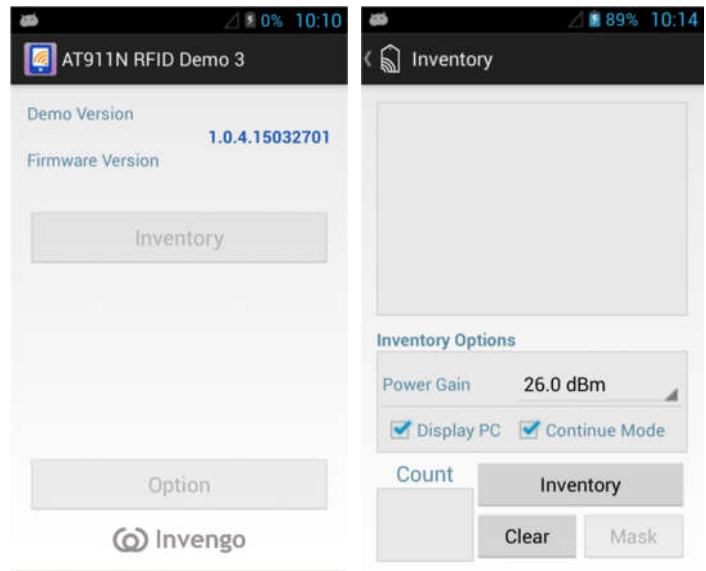Start Camera program

Camera screen

6. Use UHF

6.1 UHF 900Mhz RFID Program

[Menu] -> [Applications] -> [Settings] -> [ATUHF Demo]

Start ATUHF Demo program   ATUHF Demo screen

Chapter 5. Appendix
Product Specifications

Physical Characteristic and Operating Environment	
Appearance	145mm(L) X 75mm(W) X 23mm(H)
Weight	Body 335g
Operating temperature	-20℃ ~ 50℃
Storage temperature	-30℃ ~ 60℃
Humidity	Non-condensing
Drop	1.2m drop to concrete
Product Specifications	
Process	ALLWINNER A20 Dual-Core 1.0GHz
Operating system	Android 4.2 Jelly Bean
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 2,260mAH(rechargeable)
Power Adaptor	Input AC 110~240V Output DC 5V 2A
Network Characteristic	
Radio	GSM/GPRS,WCDMA and HSDPA
Wireless LAN	WLAN(802.11 a/b/g/n compliant)
Antenna	Embedded LAN & WAN
Data Collection processor	
Scanner	1D Laser, 2D Imager Scanner
Camera	5.0M Pixel
UHF 900MHz tag reader	
Frequency	902MHz - 928Mhz
Reading range	0m ~ 7m(According to Tag & Environment)
Writing range	0m ~ 3m(According to Tag & Environment)
Antenna Gain	1dbi(Standard)
Speed	62.5 kbps

RF output	1W EIRP
Protocol	EPC Gen2 ISO 18000 6C, ISO 18000(6B option)
Multi reading	Anti-collision

RF Exposure Information and Statement

The SAR limit of USA/Canada (FCC/IC) is 1.6 W/kg averaged over one gram of tissue. Device types WCDMA wireless data terminal (FCC ID: VUJAT911N / IC: 20534-AT911N) has also been tested against this SAR limit. The highest reported SAR values for head, body-worn accessory, wireless router(hotspot) , and simultaneous transmission conditions are 0.445 W/kg, 0.788 W/kg , 0.748 W/kg, and 0.946W/kg respectively. This device was tested for typical body-worn operations with the back of the handset kept 10mm from the body. To maintain compliance with FCC RF exposure requirements, use accessories that maintain a 10mm separation distance between the user's body and the back of the handset. 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.

FCC Warning

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.

NOTE 1: 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.

NOTE 2: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

IC WARNING

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.

AT911N User Guide