



Atid Co., Ltd.

ATS100 User guide

ATS100 Product Quick guide

Kyoung-Won Lee

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ATS100 Product Quick guide					Company	Atid Co., Ltd.	
Doc Name	User guide	Writer	Kyoung-Won Lee	Date	2018-01-08	Ver.	v0.1

Revision History

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1. Before Beginning,

The objective of user guide is to pass the basic contents related with ATS100's maintenance and smooth uses.

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2. Product Overview

ATS100 is both subminiature barcode and RFID reader which can grasp with just one hand. As the device that meets the basic function for industrial product such as IP65 in water & dust test and 1.2 m drop specification, it can take an active as data collector in the various kinds of part in medicine, stock and product management and logistics shipping/tracking, access control. 2D Barcode, UHF RFID Tag information can be collected by just one ATS100 and collected data can transfer to the HOST PC or Smart Phone by using Bluetooth or Wireless LAN through Remote process / real time process / batch process mode. This device is designed to handle the data by the equipment which has the Windows, Android as an operating system.

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3. Strength of Product

ATS100 is the smallest product among the existing RFID, Barcode Scanner-Reader product

- Its device as durable industrial PDA meets IP65 standard for the dust & water proof and 1.2m drop to concrete.
- Apply Motorola SE4710 Barcode module, fast and accurate support for Barcode data collection.
- UHF RFID Tag can be read and written quickly since Impinj R2000 module is installed in the product
- It device can be connected to PC and charged up itself through USB Cable.
- It can be charged up without exclusive adapter through normal smartphone charger
- Battery replacement is easily available and its device can change the battery in case of battery shortage while using it.
- Exclusive charging package for only battery charging will be offered
(Option: To be Offered in the near future)

4. H/W Specification

Performance Characteristics	
Processor	ARM7 Core
Support Operating System	Windows(WLAN/BT), Android(BT)
Memory	1Mbit (512Kbyte able to use)
Weight	420g
Operation Temperature	-20~40℃
Storage Temperature	-30~70℃
Humidity	95% non-condensing
Drop specification	1.2M Drop to concrete
Dust & Water Proof	IP65

Physical Characteristics

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Audio	Buzzer
Standard I/O Port	Bluetooth 4.1
Notification	LED, Buzzer, vibrator
Dimensions(L x W x H)	133.8 x 173.7 x 70.0 mm

Battery Supply

Main Battery	5,200mAH Li-Ion Rechargeable Battery
Power Adapter	Battery Charger(Optional) & DC5V, 800mA

Network Characteristics

Wireless LAN	802.11 b/g/n Wireless LAN, Key Emulator
Bluetooth	Bluetooth 4.1 HID/SPP

Barcode Data Processing Device

Barcode Engine	2D Scanner
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UHF 900MHz RFID Reader/Writer

Chips set	Impinj R2000
Frequency	902~928MHz
Reading Range	0M~3M(According to Tag & Environment)
Writing Range	0M~1.5M(According to Tag & Environment)
Max. RF output	30dBm, Circular
Protocol	EPC Gen2, ISO/IEC 18000-6C
Special Function	Anti-Collision

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5. Product Composition

5.1 Product Composition

The basic package for ATS100 is shown as below



< Device Body >



< User Guide >

5.2 Composition of Each Product's Part

i. Button and LED of device



- ① Power/Charge LED : Red lamp will be lit in case of charging and green light is on in the case of fully charged.
- ② Mode 1 LED : Displays the operation method currently in use. Each time the Mode 1 Switch button is pressed, the three modes of RFID (off), Scanner

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(On) and Trigger (Blink) are switched.

- ③ Mode 2 LED: Displays the communication method currently in use. Each time the Mode 2 Switch button is pressed, the two modes of Bluetooth (Green) and WiFi (Orange) are switched.
Fast blinking: Indicates that it is waiting for connection with host device.
Slow blinking: Indicates that the host device is connected to the current communication mode.
- ④ Mode 1 Switch : Switch the communication function of Bluetooth, WLAN whenever you press it.
- ⑤ Power Key : Turn on/off pressing it more than 2 seconds.
- ⑥ Mode 2 Switch : Switch the operation function of RFID and Scanner whenever you press it.
- ⑦ Reset Key : Restart the device.

ii. General description



- ① Handle : Handle that fits in your hand, and the battery is built in the device.

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- ② Trigger Switch : Scan Switch according to operating mode.
- ③ RFID Antenna : UHF RFID Antenna is built in the device, and the radio is emitted through RFID Antenna when reading the Tag
- ④ Scanner : Barcode scanner is built in the device and 2D barcode module will be selectively applied. Please note that it should be careful to use since it is one of the most important part to read the barcode.
- ⑤ Gun lock : Push the lock button to separate the gun(battery).
- ⑥ USB Connector & Waterproof Cover : If the Waterproof Cover opens up, C-type USB connector is located in it. User can charge the device through it.

6 Warranty and Technical Supports

All of ATID products have one-year warranty from date of manufacture

However, there is a principle in ATID that the customer will be charged for the repairs, in case of the damage caused by customer even if it is under warranty period

We recommend requesting the warranty and technical support for ATS100 through distributor.

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FCC RF Exposure Information and Statement

This device 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. The SAR limit of USA (FCC) is 1.6 W/kg averaged. Device types: UHF Reader (FCC ID: VUJATS100) has also been tested against this SAR limit. SAR information on this and other pad can be viewed on - line at <http://www.fcc.gov/oet/ea/fccid/>. Please use the device FCC ID number for search. This device was tested simulation typical 0mm for WiFi transmit and 40 mm for RFID transmit to body. To maintain compliance with FCC RF exposure requirements, should maintain a separation distance between the user's bodies mentioned above.

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.