Atid

All that Identification

Atid Co., Ltd.

AT288N UI guide

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AT288N UI guide

Ver.	Releasing Date	Contents	Writer	Remark
V0.1	2016-02-24	Draft	Won-Tak Choi	First Release
V0.2	2016-04-16	Unique Amended	Won-Tak Choi	Modified
V0.3	2016-05-25	LED Indicator Re-Defined	Won-Tak Choi	Modified
V0.4	2017-02-27	FCC waring	Won-Tak Choi	Modified

History

Contents

1 Description for Main Function

1.1 Protocol

It is designated to select either ISO/IEC 18000-6C or ISO/IEC 18000-6B, but ISO/IEC 18000-6B is not available at present. It will be supporting in the near future.

1.2 Remote control

AT288N can be used by both Bluetooth and USB. For the detailed information, Bluetooth Protocol can be set up among SPP, HID. Also USB protocol can be set up by either VCP or HID.

1.2.1 Bluetooth

BTH SPP

The connection can be available using Serial Profile Protocol and Data to be transmitted will be uploaded to Serial Port (COM Port) of upper level device. Upper level device should produce the additional program for utilizing the transmitted data.

BTH HID

The connection can be available using Human Interface Device and Data to be transmitted will be uploaded on the cursor as like Keyboard typing. The caution should be needed in using the device since the difference between the data read by actual device and data on the cursor can be occurred in accordance with keyboard language setting of upper level device

1.2.2 USB

USB VCP

The connection can be available using Serial Profile Protocol and the data to be read will be uploaded to Serial Port (COM Port) of upper level device. Upper level device should produce the additional program for utilizing the transmitted data

USB HID

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The connection can be available using Human Interface Device and Data to be transmitted will be uploaded on the cursor as like Keyboard typing. The caution should be needed in using the device since the difference between the data read by actual device and data on the cursor can be occurred in accordance with keyboard language setting of upper level device

1.3 RF Power Control

Output power of RFID Module can be controlled by pressing the RF Power Control Left Key and RF Power Control Right Key. Level is set from 11 to 30.

1.4 Beep

When reading the tag or pressing the button, Beep will be working. Beep function can be power-off state in accordance with user.

1.5 Data storage

Not only transmitting the data to remote control in the real time, but also transmitting the data to remote control at once after saving it in local storage is available.

1.6 Inventory mode

1.6.1 One Tag mode
If just one tag is read, this mode will make tag reading stop

1.6.2 Multi Tag mode
In this mode, tag will be continuously reading regardless of duplication

1.6.3 Unique Tag mode
In this mode, tag will be continuously reading like Multi tag mode, but the difference is that same tag will be reading just once time.

1.7 Output Format

1.7.1 Serial number
Serial number will be shown in front of the tag

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1.8 **RFID Inventory Option**

1.8.1 Selection Mask

Neither random tag only inventories or all tags except for random tags inventory.

1.9 **Firmware mode**

This mode can be possible to set in state of power-off. To work this mode, press scan button and power key simultaneously. Firmware update for AT288 is available in this mode and pressing the power key makes it revert to the original state.

1.10 **UHF Update Mode** (To Be Supported)

To work this mode, press RF Power Control Right Key. Firmware for UHF Module is available in this mode.

1.11 **Auto power off**

For this function, device will be power-off after designated time.

1.12 **Memory Access**

1.12.1 Memory Read

This is the function to read the tag by directly accessing the memory

1.12.2 Memory Write

This is the function to write the tag by directly accessing the memory.

1.12.3 Memory Lock

This is the function to lock the tag by directly accessing the memory.

1.12.4 Tag Kill

This is the function to kill the tag by directly accessing the memory.

If user does tag kill, it is not possible to revert to the tag.

2 LED

Changing LED state will let user know on setting and event of AT288N

2.1 **One / Multi LED**

In state of One tag mode in Inventory Mode, ONE LED will be turned on and in state of

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Multi tag mode in inventory mode, Multi LED will be turned on. in state of Unique tag mode, both One and Multi tag mode will be turned on.

2.2 Scan LED

In state-on for scan button, Scan LED is enable and in state-off, Scan LED is disable. If inventory is in success, scan LED will be flickered

2.3 SPP LED

In state of either BTH_SPP or USB_VCP, SPP LED will be turned on . In state of either BTH_HID or USB_HID, both LEDs will be turned off.

2.4 RF Control Window LED

RF Control Window LED is consisted of 11 pcs of LED. In general, RF Control Window LED shows the setting value for UHF power.

2.4.1 Show Bluetooth Protocol settings

RF Power Window	Bluetooth Protocol
●●●●●○○○○○○	BTH SPP
○○○●●●●●○○○	BTH HID

2.4.2 Show USB Protocol settings

RF Power Window	USB Protocol
●●●●●○○○○○○	USB VCP
○○○●●●●●○○○	USB HID

2.4.3 Show Beep Control settings

RF Power Window	Beep Control
●●●●●●○○○○○	Beep disable
○○○○○●●●●●●	Beep Enable

2.5 Power LED

When Low battery, Power LED will be flickered on cycle of 1000ms (Enable 500ms, Disable 500ms). Also, Power LED will be enable, in case device is charged by connecting either USB or Adaptor. If charging the device is not finished, there is Red

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LED. At the full charging of device, there is Green LED.

2.6 BT LED

BT LED is only worked, in case comport is set for Bluetooth. It shows if both remote control and device are set by Bluetooth or not.

2.6.1 Bluetooth Connection on standby
BT LED flickers on cycle of 500ms (Enable 100ms, Disable 400ms)

2.6.2 Bluetooth Connection in Success
BT LED is always on

2.7 USB LED

USB LED will be only working on comport set by USB. Please check if both remote control and device are connected by USB

2.7.1 USB Connection on standby
USB LED flickers on cycle of 500ms (Enable 100ms, Disable 400ms)

2.7.2 USB Connection in Success
USB LED is always on

3 Button

There are two ways of maneuvering buttons for AT288N; Long press & Shot press.
For Short presses, it is recognized and operates when the buttons are released. For Long presses, it is recognized and operates when the button is pressed for more than 2 seconds. Pressing buttons usually refers to the short presses unless otherwise specified.

3.1 Power Key

Used for turning on/off the device.

3.1.1 When the device is turned off, pressing the power key for a few seconds will turn

on the device.

    3.1.2 When the device is turned on, pressing the power key for a few seconds will turn off the device.

3.2 C Key

There are two functions for C key. For AT288 users, please note the key functions differently in AT288N since AT288N only supports 6C.

3.2.1 Short Press

When C Key is pressed, different Inventory Mode can be selected.
One Tag mode-> Multi Tag mode-> Unique Tag mode

3.2.2 Long Press

Long press would enable or disable the Beep Mode.

3.3 RF Power Control Left Key

There are two functions for RF Power Control Left Key.

3.3.1 Short Press

RF power can be adjusted. 1dBm is decreased per press. The minimum RF power that can be set is 11dBm.

3.3.2 Long Press

Remote Protocol can be selected by long press. If COM PORT setting is USB, USB protocols will be selected. If COM PORT setting is BT, BT protocols will be selected. It will take 3.5 seconds to apply the mode changes.

For USB protocol, USB_VCP → USB HID → USB_VCP
BT Protocol, BT_SPP → BT_HID → BT_SPP

3.4 RF Power Control Right Key

There are two functions for RF Power Control Left Key.

3.4.1 Short Press

RF power can be adjusted. 1dBm is increased per press.

3.4.2 Long press (To be supported later)

Run in UHF Update Mode. In this mode, the firmware of UHF Sensor can be updated.

3.5 Multi/One Key

No function has been applied yet.

3.6 BT/USB Key

Data transmit mode can be selected with BT/USB Key. The selected mode is shown via BT/USB LED on the device. The mode change (change in LED) is applied two seconds after the BT/USB Key is pressed. No other modes will be changed during these two seconds.

3.7 Scan Button

Run Inventory. Other buttons do not operate while Scan button is being pressed.

3.8 Firmware mode

Firmware mode can be entered by pressing the power key while Scan button is being pressed. Firmware mode can only when the device is turned off.

4 Beep

There are beep sounds only when Beep Mode is enabled. The Beep mode is changed by pressing C Key. If the Beep Mode is disabled, there will be no sounds at all. Beep sound is operated when Power On/Off, Remote connection/disconnection, Button press and Inventory is successful.

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 over one gram of tissue for body, and 4 W/kg averaged over ten gram of tissue. Device types: BlueTooth RFID Reader (FCC ID: VUJAT288N-R) 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 wear on hand and 10mm for body-worn. To maintain compliance with FCC RF exposure requirements, use accessories should maintain a separation distance between the user's bodies mentioned above, 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.