Atid Co., Ltd.

AT288N UI guide

AT288N UI guide

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History

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1 Description for Main Function

1.1 Protocol

It is designated to select neither 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 and BLE **(To be supported)**. 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

BTH BLE

The connection can be available using Bluetooth low energy and possible to use in IOS. The reading distance is shorter than existing Bluetooth, but effectivity is better than existing one.

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

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

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 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 / BLE LED

In state of neither BTH_SPP or USB_VCP, SPP LED will be turned on and in state of BTH_BLE, BLE_LED will be turned on. In state of neither 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 When showing RF power value

RF Power Window	RF Power
●●○○○○○○○○○	11dBm
○●○○○○○○○○○	12dBm
○●●○○○○○○○○	13dBm
○○●○○○○○○○○	14dBm
○○●●○○○○○○○	15dBm
○○○●○○○○○○○	16dBm
○○○●●○○○○○○	17dBm
○○○○●○○○○○○	18dBm
○○○○●●○○○○○	19dBm
○○○○○●○○○○○	20dBm

○○○○○●●○○○○	21dBm
○○○○○○●○○○○	22dBm
○○○○○○●●○○○	23dBm
○○○○○○○●○○○	24dBm
○○○○○○○●●○○	25dBm
○○○○○○○○●○○	26dBm
○○○○○○○○●●○	27dBm
○○○○○○○○○●○	28dBm
○○○○○○○○○●●	29dBm
○○○○○○○○○○●	30dBm

2.4.2 Show Bluetooth Protocol settings

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

2.4.3 Show USB Protocol settings

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

2.4.4 Show Beep Control settings

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

2.5 **Power LED**

In 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 neither USB or AC-DC Adaptor. If charging the device is not finished, there is Red 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 is 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 to change 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 in AT288N; Long press & Shot press.
For Short presses, it is recognized and operates when the buttons is 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 are selected. If COM PORT setting is BT, BT protocols are 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_BLE → 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. The maximum RF power that can be set is 30dBm.

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 sound 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.