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**Mobile Data Terminal**  
**IPDA086 User Manual**



Version 1.0.0

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## 1.0. Product intro

### 1.1. Intro

IPDA086 is an industrial-grade smart handheld terminal. It is based on Android 11, which runs fast and has long battery life. To meet the needs of multi-industry applications like logistics express, warehouse inventory, manufacturing, retail, etc. It can help customers to quickly access information and improve the efficiency of outbound storage inventory.

The user manual download link:

<https://munbyn.biz/086um>

The SDK download link:

<https://munbyn.biz/086sdk>

### 1.2. Precaution before using battery

- Do not leave the battery unused for a long time, no matter it is in the device or inventory. If the battery has been used for 6 months already, it should be checked for charging function or it should be disposed of correctly.
- The lifespan of a Li-ion battery is around 2 to 3 years, it can be circularly charged 300 to 500 times. (One full battery charge period means completely charged and completely discharged.)

- When a Li-ion battery is not in use, it will continue to discharge slowly. Therefore, battery charging status should be checked frequently and take reference related battery charging information in the manuals.
- Observe and record the information of a new unused and non-fully charged battery. On the basis of the operating time of the new battery and compare with a battery that has been used for a long time. According to the product configuration and application program, the operating time of the battery would be different.
- Check battery charging status at regular intervals.
- When battery operating time drops below about 80%, charging time will be increased remarkably.
- If a battery is stored or otherwise unused for an extended period, be sure to follow the storage instructions in this document. If you do not follow the instructions, and the battery has no charge remaining when you check it, consider it to be damaged. Do not attempt to recharge it or to use it. Replace it with a new battery.

- Store the battery at temperatures between 5 °C and 20 °C (41 °F and 68 °F).

### 1.3. Charger

The charger output voltage/current is 9V DC/2A. The plug considered as disconnect device of adapter.

### 1.4. Notes

1. Using the incorrect type of battery has the danger of explosion. Please dispose of the used battery according to instructions.
2. Due to the used enclosure material, the product shall only be connected to a USB Interface of version 2.0 or higher. The connection to the so-called power USB is prohibited.
3. The adapter shall be installed near the equipment and shall be easily accessible.
4. The suitable temperature for the product and accessories is -10 C to 50 C.

## 2.0. Installation instructions

### 2.1. Appearance

IPDA086 back and front appearances are showing as follows:

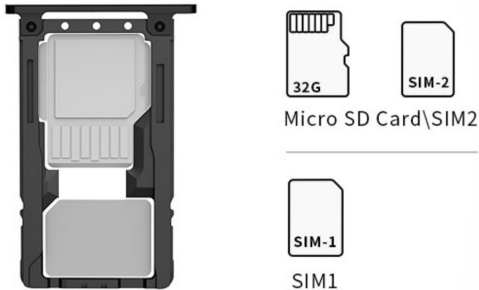


### Buttons instruction

Button		Description
Side button	1. Power	Locate on the right side, press to ON/OFF device
	2. PTT key	Locate on the right side, its function can be defined by software
	3. SCAN	Scanning button located on both sides. There are two scanning buttons
	4. Volume +/-	Volume up and down

## 2.2. Install Micro SD and SIM cards

The cards sockets are showing as follows:



## 2.3. Battery charge

By using USB Type-C contact, the original adapter should be used for charging the device. Make sure not to use other adapters to charge the device.

## 2.4. Buttons and function area display

IPDA086 has 6 side buttons, 2D scanning module locates on the top. HD camera and flashlight locate at the rear. NFC identification surrounds the camera.



## 3.0. Keyboard emulator

Keyboard emulator detailed operation manual download link: <https://munbyn.biz/083kem>

### 3.1. Function setup and keycode

In the function list, the user can select the supported function that can be realized by keyboard emulator. For example, if the device has equipped with 2D

barcode scanning module, option “Barcode2D” should be selected for scanning 1D/2D barcode. Click “Keycode” to acquire focus point, press the button “SCAN”, then related key code will be entered on the line automatically.

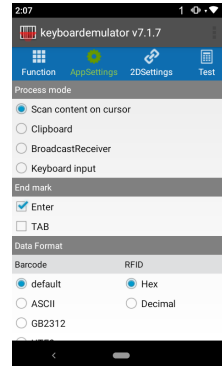
## The keycode:

Left scan key : 291  
Right scan key : 293  
Handle key : 294



After the function has been bound with button, related function can be activated by pressing button.

## 3.2. Process mode



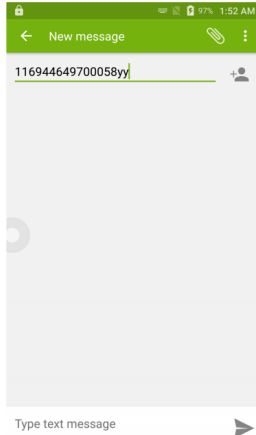
Process mode means how the data will be processed after barcode data has been read out.

### Scan content on cursor:

Enter read-out data in cursor position.

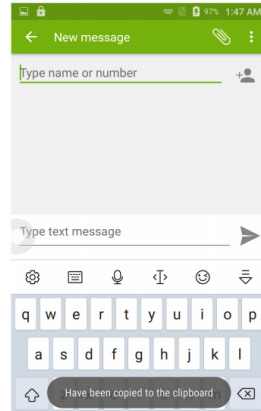
### Keyboard Input:

Enter read-out data in cursor position, it is same as input data on analog keyboard.



## Clipboard:

Copy the read-out data on the clipboard, paste data on the place that the user needs.



## Broadcast Receiver:

It is the method that uses the broadcast mechanism of Android to transfer read-out bar code data to customer's program. In this way, the codes of API in SDK do not need to be written into customer software codes, read-out data can be acquired by registering broadcast and customer can operate read-out data according to logic requirements. After selecting "Broadcast Receiver", "Broadcast name" and "Key" need to be adjusted.

Broadcast name: it is the broadcast name of acquired data in customer software.

Key: acquire the corresponding key designation of the broadcast.

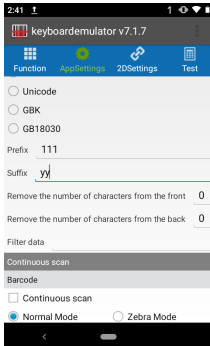
### 3.3. Additional information

The additional information means adding extra data at front or rear on scanned barcode data.

“Prefix”: add data at the front of read-out data.

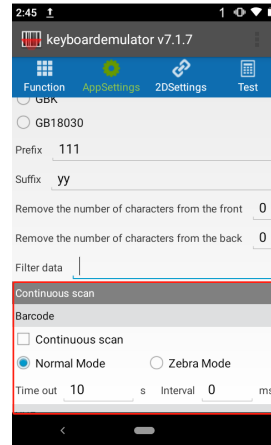
“Suffix”: add data at the rear of read-out data.

For example, if the original read-out data is “12345678”, prefix will be modified as “111” and suffix will be modified as “yy”, the final data will display “11112345678yy”.



### 3.4. Continuous scan setup

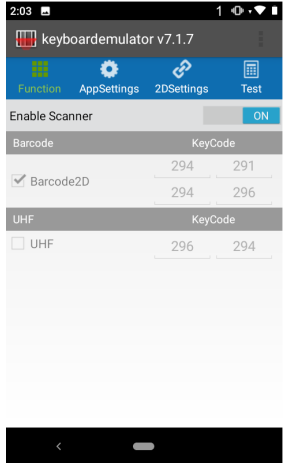
Select continuous scan, user can adjust the “interval” and “time Out”.



### 3.5. Enable scanner

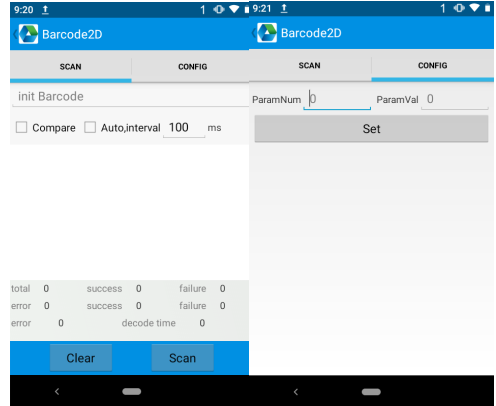
After all previous functions have been adjusted, click “Enable scanner” to switch on scanner, now user can use all the functions of keyboard emulator.





## 4.0. Barcode reader-writer

1. In App Center, to open 2D barcode scan test.
2. Press "SCAN" button or click scan key to start scanning, the parameter "Auto interval" can be adjusted.



Caution: Please scan codes in the correct way otherwise the scanning will be failed.

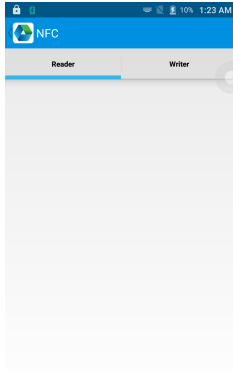
2D code:



## 5.0. RFID reader

### 5.1. NFC

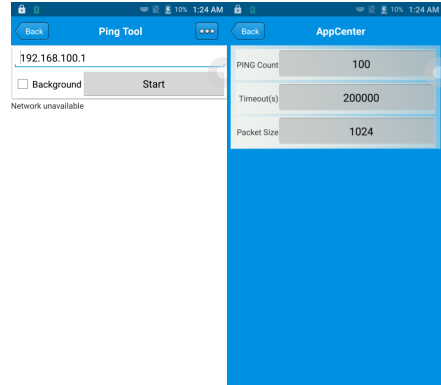
Click App Center, open “NFC” to read and write tag information.



## 6.0. Other functions

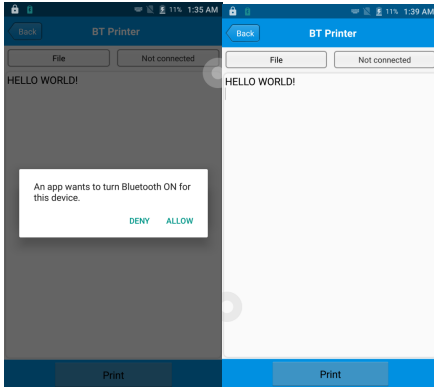
### 6.1. PING Tool

1. Open “PING” in App Center.
2. Setup PING parameter and select external/internal address.



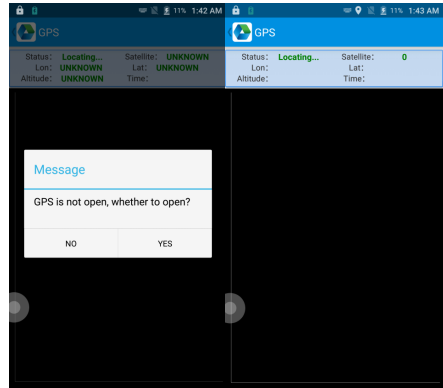
## 6.2. Bluetooth

1. Open “BT Printer” in App Center.
2. In the list of detected devices, click the device that you want to pair.
3. Select printer and click “Print” to start printing contents.



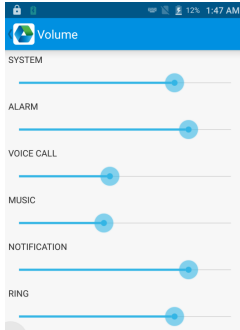
## 6.3. GPS

1. Click “GPS” in App Center to open GPS test.
2. Setup GPS parameters to access GPS information.



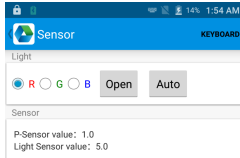
## 6.4. Volume setup

1. Click "Volume" in App Center.
2. Setup volume by requirements.



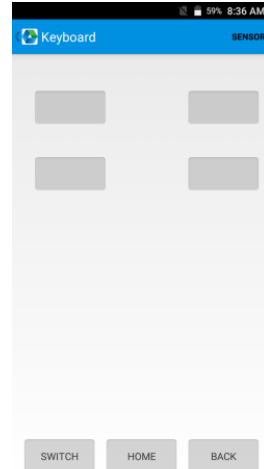
## 6.5. Sensor

1. Click "Sensor" in App Center.
2. Setup the sensor by requirements.



## 6.6. Keyboard

1. Click "Keyboard" in App Center.
2. Setup and test the main value of the device.

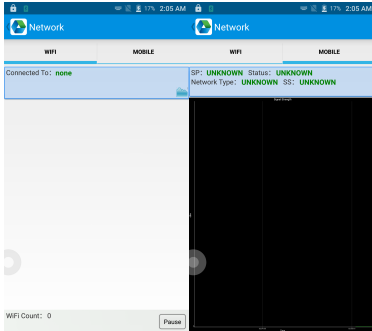


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## 6.7. Network

1. Click "Network" in App Center.
2. Test WIFI/Mobile signal by requirements.



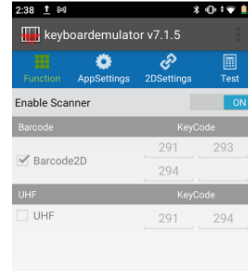
## 7.0. FAQ

- Q1: Why is there no light when scanning?  
A1: First make sure that "Enable Scanner" is turned on and the keycode entered is correct.  
Left scan key: 291  
Right scan key: 293  
Handle key: 294

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- Q2: Why can't the device scan after I restore the factory settings?  
A2: When you reset the device to factory settings, you should check the Barcode2D, as the following picture.



- Q3: Why can't my newly purchased device be turned on, even after charging for more than half an hour?  
A3: It must be that the insulation sticker of the battery has not been torn off, please tear off the insulation sticker of the battery before turning on the machine.

Q4: How to use the battery correctly?

A4: The battery is a Li-ion battery, if no power, please immediately charge it, don't keep the battery with full power or no power for long time, the best way is to keep 50% power of the battery to store it. And if you don't use the PDA for long time, it is better to pull out the battery from PDA.

Q5: The device cannot be charged.

- (1) Check the device adapter and charging port are good.
- (2) If the device is not used for a long time, please keep it charged for 30 minutes. Then check the device lights on or not.
- (3) Replace the battery of the device that can be turned on normally, check the problem on battery or device.

Q6: How to install the hand strap?

Tutorial video:

<https://munbyn.biz/086hsiv>

MUNBYN provides 18 months warranty and lifetime free service.

If you encounter any issues with the product, please contact the MUNBYN team to promptly receive troubleshooting tips or a replacement.

✉ [support@munbyn.com](mailto:support@munbyn.com) (24-7 online support)

🌐 [www.munbyn.com](http://www.munbyn.com) (how-to videos, warranty details)