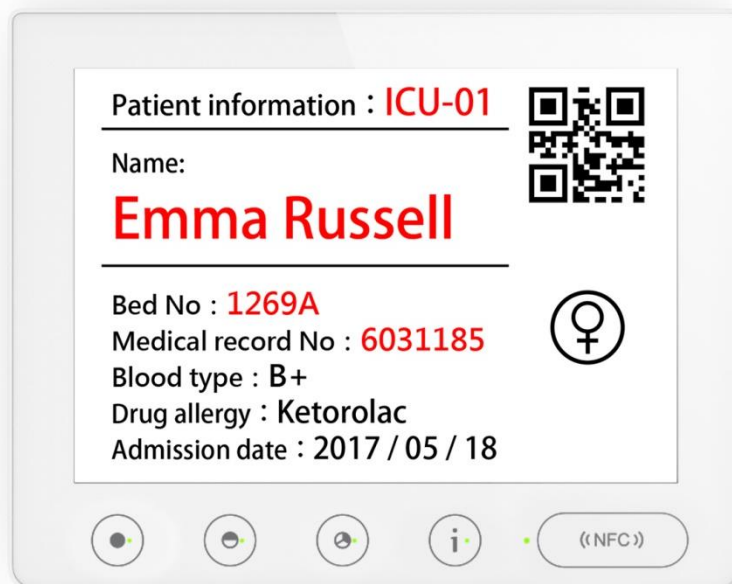# Digital Signage
User Manual

- The contents of this manual will be modified without further notice.

- The operation temperature for the product is between 10℃~40℃.

- Operating or recharging in an environment with a temperature over 40℃ might cause the system to malfunction. However, this should be considered a normal phenomenon. Please do not operate under extreme temperatures.

Model: S97407/ S133408

Content

Digital Signage User Manual

Preface

We appreciate your purchase the digital signage of the Sable.

Please read all instructions thoroughly for a full understanding of the products' features.

Note:
- The illustrations and images used in the manual are for reference only and may differ from the actual product.

Digital Signage User Manual

Federal Communications Commission (FCC) Statement

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.
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 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.
FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.
This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Radiation Exposure Statement:

The product complies with the FCC portable RF exposure limit set forth for an uncontrolled environment and are safe for intended operation as described in this manual. The further RF exposure reduction can be achieved if the product can be kept as far as possible from the user body or set the device to lower output power if such function is available.

Note: The country code selection is for non-US model only and is not available to all US model. Per FCC regulation, all WiFi product marketed in US must fixed to US operation channels only.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body. (S133408 only)

Digital Signage User Manual

USA- Appliance Efficiency Compliance (S97407 only)

Digital Signage User Manual

Safety Precautions

- This product is a wall-mounted device; please select the install location cautiously. Sable will not bear any responsibility if the user does not follow the correct device installing procedure.

- Do not drop, puncture or disassemble the device; otherwise the warranty will be voided.

- Do not remove or replace the battery. Only well trained service personnel are allowed to disassemble/install the internal components.

- According to regulations, the device should be at a height less than 2 meters above the floor.

- Do not OTA update the device when the device is in low battery.　Do not reset the device in OTA update process.

Warranty

保固條件
1. 一般保固：保固期限內自行送修到本公司免費維修或換修之服務，更換零件以規格相等或較高之良品為主。
2. 新品保固：於發票日起 30 日(含)硬體故障者(展示品除外)、包裝及配件完整 憑發票可更換新品。
3. 維修保固：本公司對於維修後之產品，提供 90 天保固期，在此期間內如果同一故障原因再發生時，消費者享有免費維修服務。
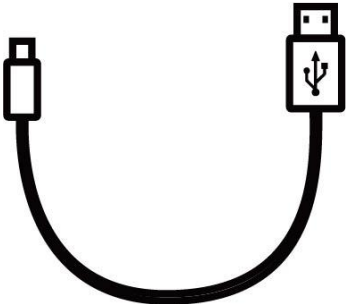
產品保固維修如有下列情形，西伯有權酌收維修費用
1. 無法證明西伯產品之保固期限或超過西伯產品之保固期限。
2. 未依操作手冊使用或非正常方式使用所致之故障毀壞。
3. 產品之毀損係受不可抗力(天災、水災、火災、地震、雷擊、颱風、蟲害等)，外力破壞(液體滲入、受潮、刮傷、摔傷、卡榫斷裂、敲打、破裂、重擊等)或其他非正常因素所致者。
4. 客戶擅自使用第三人安裝、添附、擴充、修改、修復非本公司授權或認可之零件所致之毀壞。
5. 非本公司隨機出貨之軟體問題排除或系統重整安裝或軟體安裝等服務。
6. 客戶自行變更作業系統或因電腦病毒所致之系統毀損或解毒等。
7. 耗材例如電線與相關配件等。

保固注意事項
1. 本公司僅負責硬體維修，不負責客戶資料之救援與保管，客戶於本公司提供維修服務前應先儲存備用資料或為保護資料免於損壞之措施。
2. 客戶於送修前應先行移除非原廠保固範圍之配件。(如保護膜、飾品、改裝零件等。)如上非西伯原廠配件未經移除或無法移除，西伯均不負責保管、復原或處理責任。
3. 上述產品保固說明，西伯股份有限公司保有以書面或網站修改、說明及解釋的權利。
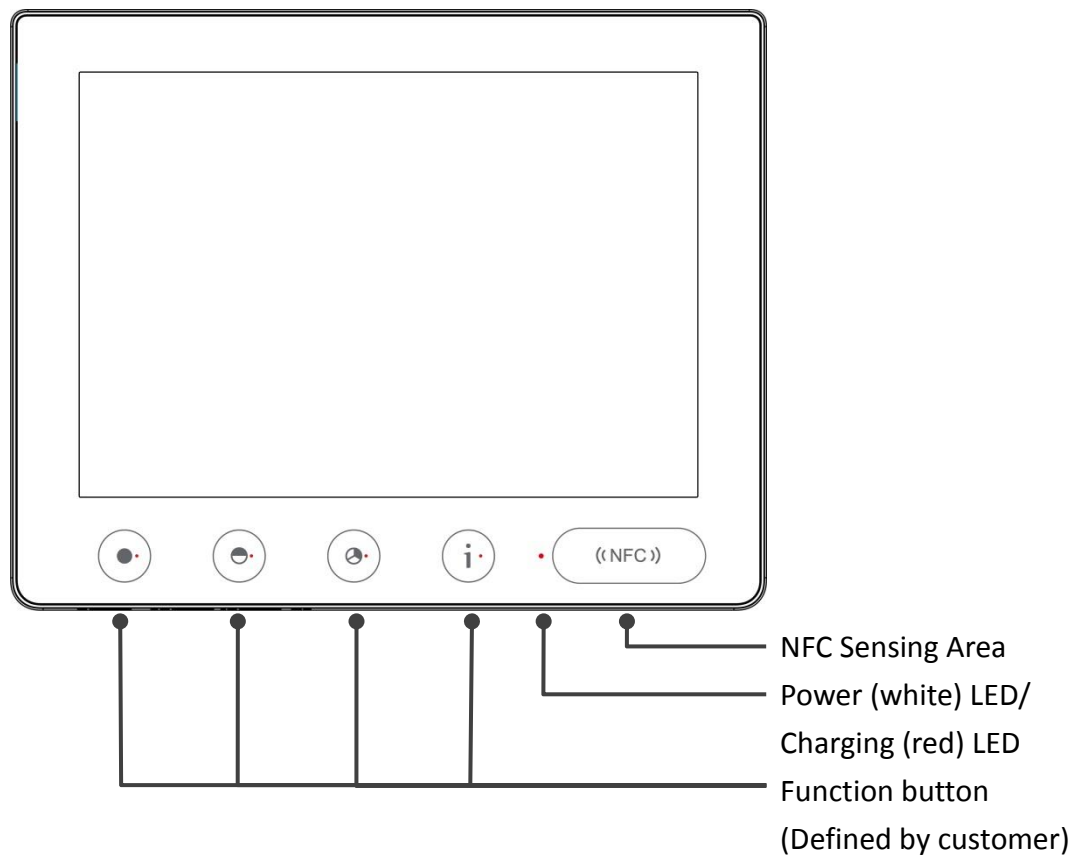4. 本保固說明僅適用於台灣地區（含離島）銷售之產品。

Digital Signage User Manual

1. Product Introduction

1.1 Package Content

Digital Signage	USB Cable

Digital Signage User Manual

1.2 Overview

1.2.1 Front View

NFC Sensing Area
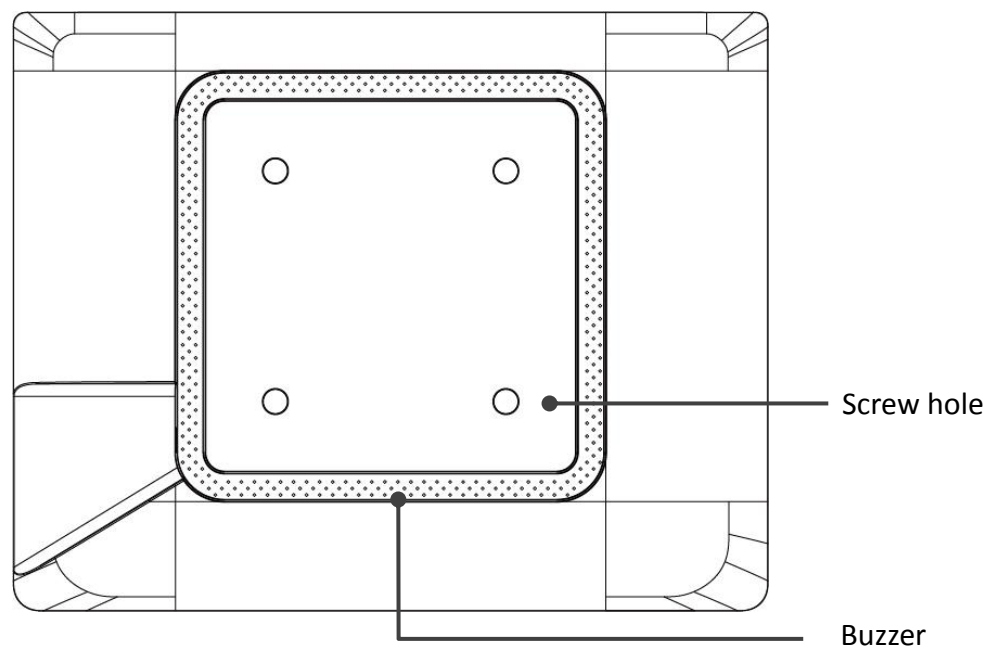Power (white) LED/
Charging (red) LED
Function button
(Defined by customer)

※ According to OEM, the function keys are divided into two types.:
・ Normal key (Behavior defined by customer)
・ NFC Sensing Area

Digital Signage User Manual

1.2.2 Rear View

Screw hole

Buzzer

※ The screw size of VESA Mount is used M4*5.5mm (size of screw hole).
  If you add a Washer/screw washer, please adjust the screw length.

※ According to regulations, the device should be at a height less than 2 meters above the floor.

1.2.3 Bottom View

Power button

Wi-Fi Setting

Bluetooth Pairing
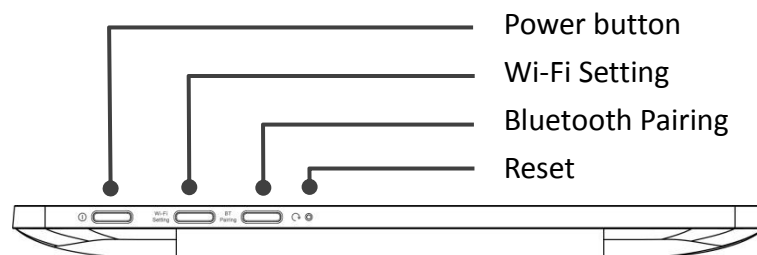
Reset

Key Type	Description
Power button	Hold the power button for 5 seconds to turn on or turn off the device
Wi-Fi Setting	Press to trigger Bluetooth for Wi-Fi setting
BT Pairing	Bluetooth Pairing key + Reset, device enter USB config mode
Reset	Insert a stretched paperclip or a small pin into the hole and press it for a few seconds to reset the device

1.2.4   Right View

Micro USB Port

Digital Signage User Manual
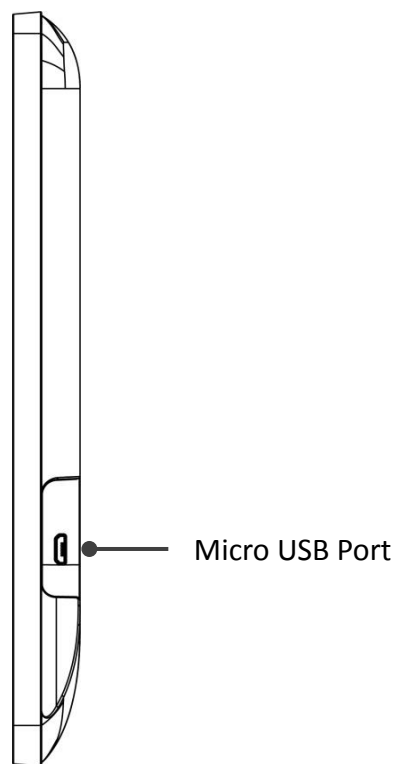
1.3 Connected information

Below table will list all data which should be prepared in advance.

| Data Name	Description
SSID	Device will connect to Wi-Fi AP's name (ex: ntxdemos)
Password	Device will connect to Wi-Fi AP's password (ex: 1234567890)
Server link	Device will send request/response to this server for getting/ reporting data (ex: http://nws.netronixinc.com:9090/ntxcmd)
OEM JSON file	Device setting config in BOOT process
Background image link	It's an image which be updated to device when boot/polling process
WiFi config setting tool	Offer two way for setting up: 1. APP Setting by cellphone (BLE WiFiconfig app) 2. USB Setting tool (USB WiFiconfig tool)

1.4 Charging the battery

Connect the micro USB cable to the USB adapter (not included), then insert the USB adapter into a power outlet to charge digital signage device.

Digital Signage User Manual
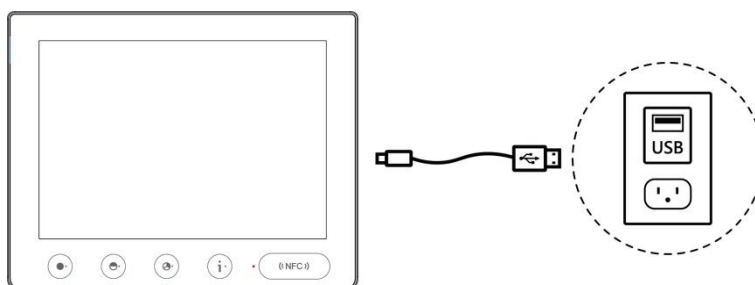
2. Architecture diagram
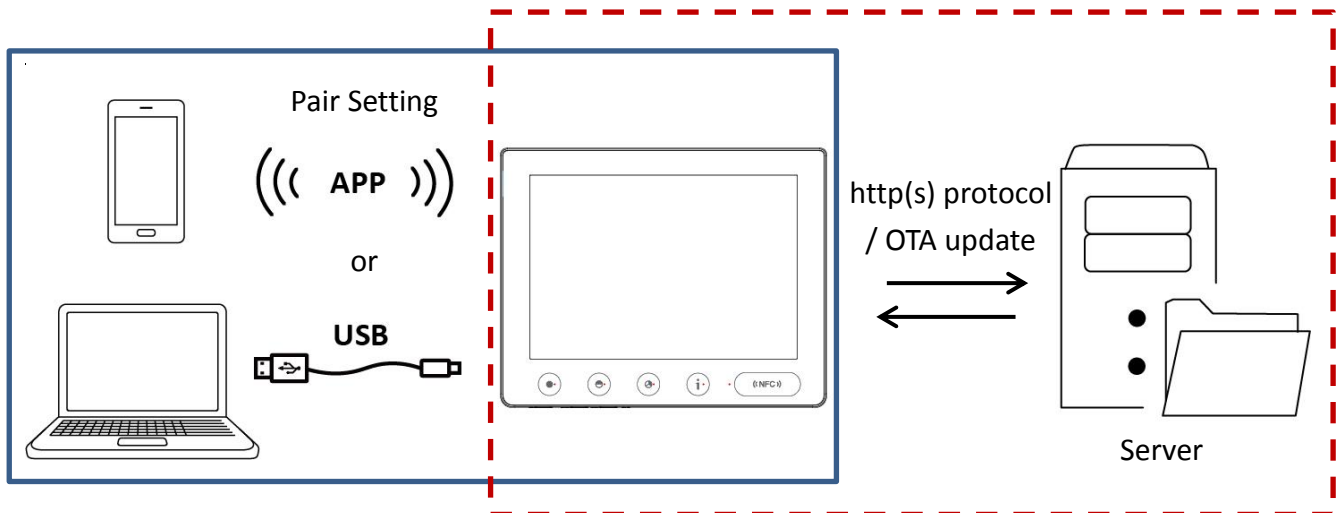
Please executing「Device Pairing setup」to complete product creation.

Please reference 4. Pair Setting

The device performs JSON file and Polling transmission with the server through the http(s) protocol, or updates through OTA.

Digital Signage User Manual

3. Software Design

3.1 Image format

The original format required for the image is as follows:

• Full size
   • 9.7": 1200(W)X825(H)
   • 13.3":1600(W) X 1200(H)

3.2 Redraw setting

The screen redraw is defined according to the server and can be adjusted according to different needs.

• The default is every 60 seconds redraw the screen.
• Within 5 seconds before/ after drawing and in drawing process, the system is busy and does not accept any command, so pressing the button will not respond.
• The timeout time of the button function is preset to 8 seconds. If the time is exceeded, the system will cancel the action, please re-operate.

Digital Signage User Manual

4. Pair Setting

There are two ways to set up Wi-Fi config:
- ‧ APP Setting by cellphone (BLE WiFiconfig app)
- ‧ USB Setting tool (USB WiFiconfig tool)

4.1 APP Setting by cellphone (BLE WiFiConfig app)

Step 1.   Please save the android_BleWifiConfig APK file to your cellphone.
(Suggestion: please store the APK in the download folder)
Clicking the APK file will automatically complete the installation.

Digital Signage User Manual
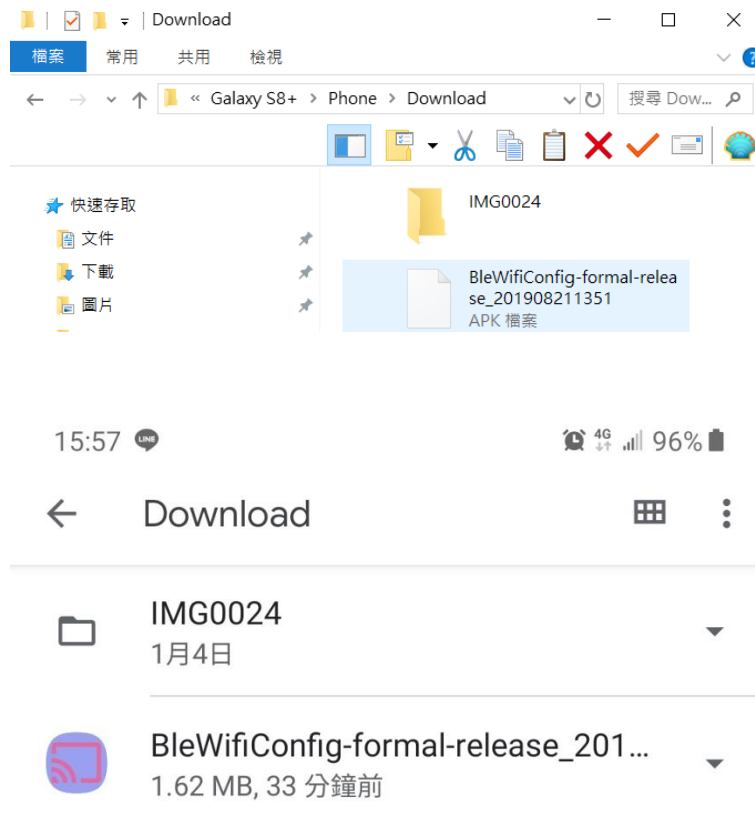
Step 2.   After completing installation, open the BleWificonfig app and check the app is the latest version.
Click [About] on upper-right corner, it will show about app information.
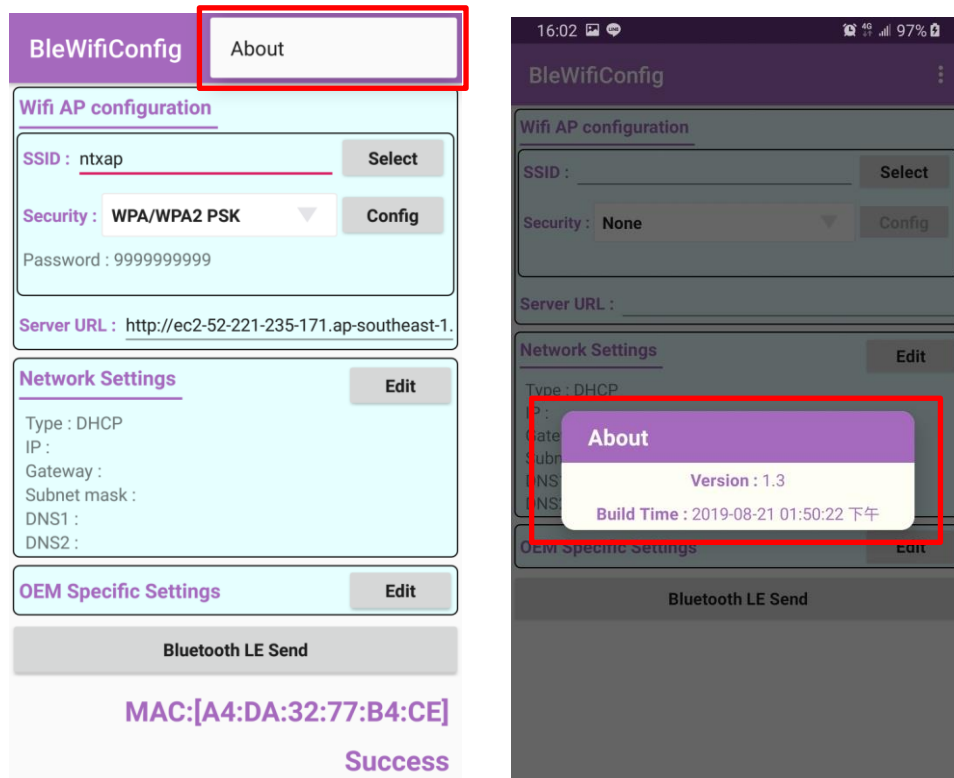
Step 3.   Click [SSID] field and key in SSID name.

Digital Signage User Manual
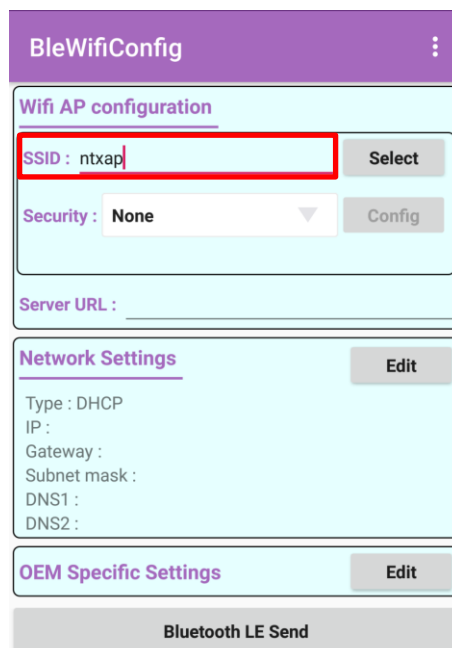
Step 4.   Select [Security] type, support 4 security mode
           1. None
           2. WEP
           3. WPA/WPA2 PSK
           4. 802.1x EAP
           Click [Config], according to the different security type fill up data.

Digital Signage User Manual

Step 5.   Fill up [Server URL]

Step 6.   Network Settings
            Click [Edit], choose use DHCP or Static IP

Digital Signage User Manual

Step 7.　OEM Specific Setting field
　　　　　Click [Edit], input JSON file URL.

Step 8.　Turn on the device
　　　　　Power on device (press 5 second) and wait for LED (white) turn off.

Digital Signage User Manual
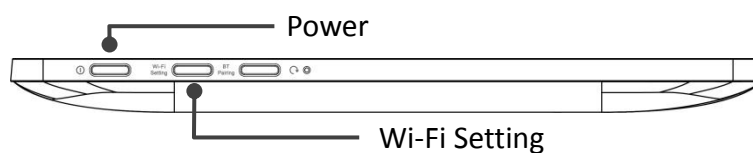
Step 9.　　Press [Wi-Fi Setting], will be displayed BLE mac address on the screen.
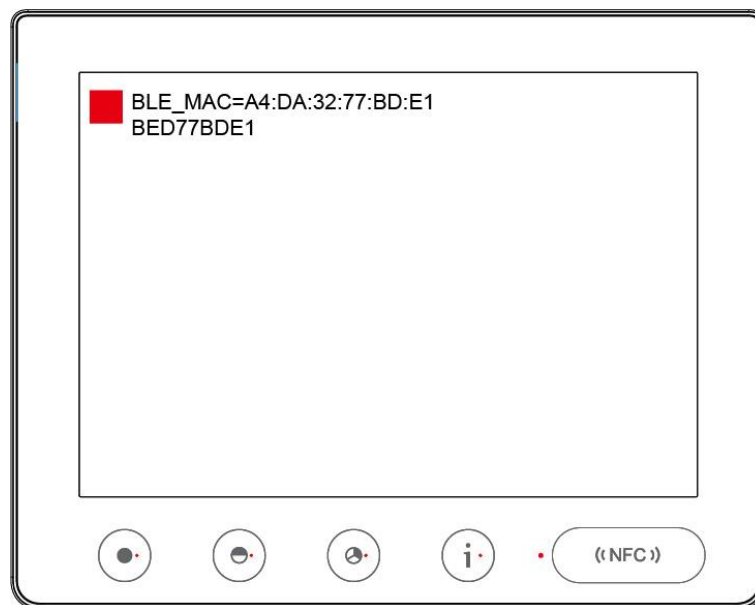
Step 10.　In APP, Click [Bluetooth LE Send], start to scan devices.
　　　　　After scan timeout, it will show all devices list.
　　　　　Choose which one you want to connect and do config.

Digital Signage User Manual
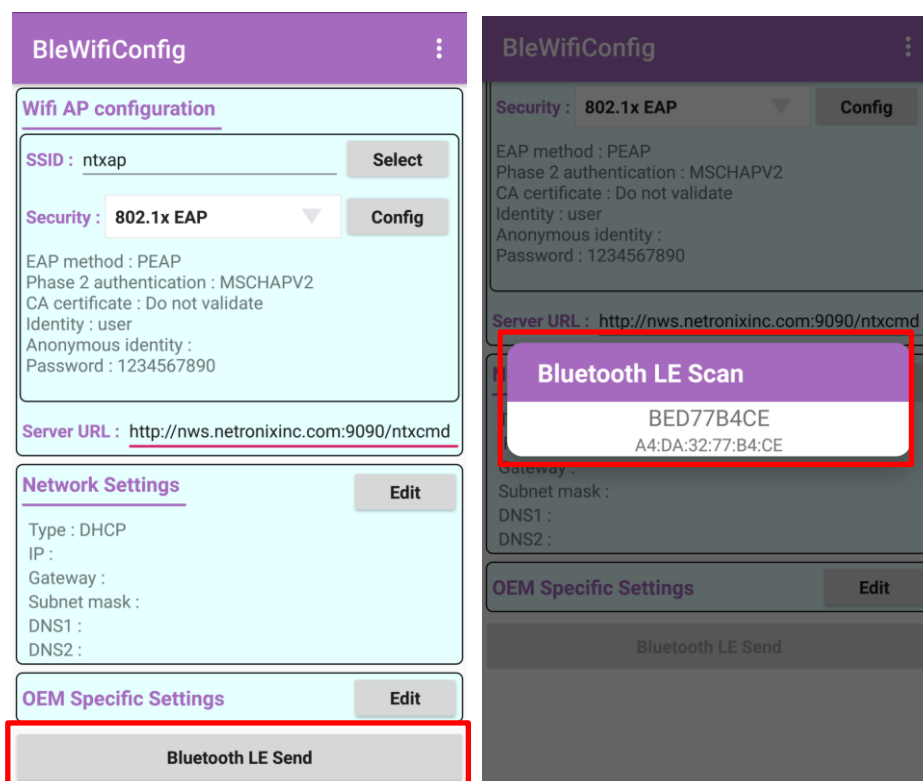
Step 11. Wait for Bluetooth connecting and sending data to device.
It will show result on pop-up window.
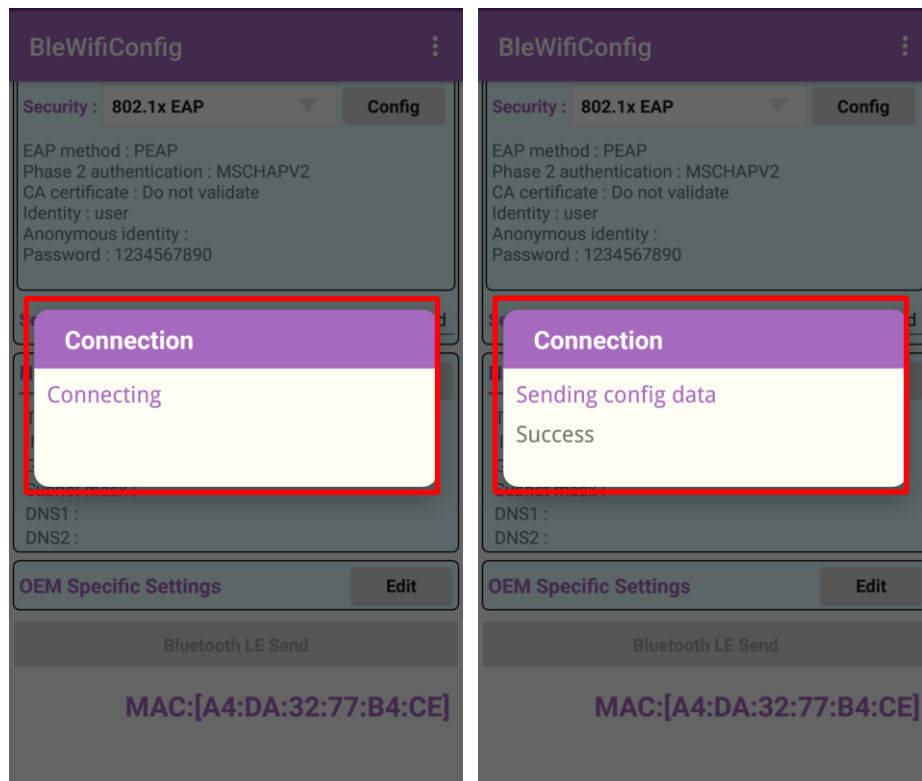
Step 12. After successfully connecting Bluetooth, please reset the device.

Digital Signage User Manual
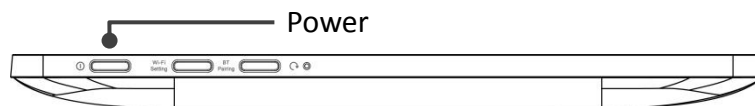
4.2 USB Setting Tool (USB WiFiconfig tool)

Step 1.　　Please make sure the device connected to PC or NB by USB.
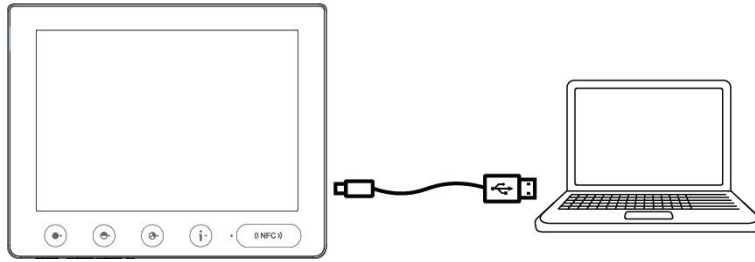
Press [BT Pairing] button then Insert a stretched paperclip or a small pin into the [Reset] hole in the same time. Four LEDs will blink twice, device enter the Wi-Fi config mode by USB.

BLE_MAC=A4:DA:32:77:BD:E1
Wifi_MAC=
IP=
NetMask=
Default GateWay=
Firmware Ver=v2.0.13_v2.0.1__v2.0.0_v2.0.5_v2.80.11
Server URL=
HeartBeat Period=60

Error: WIFI AP connect fail.

Digital Signage User Manual
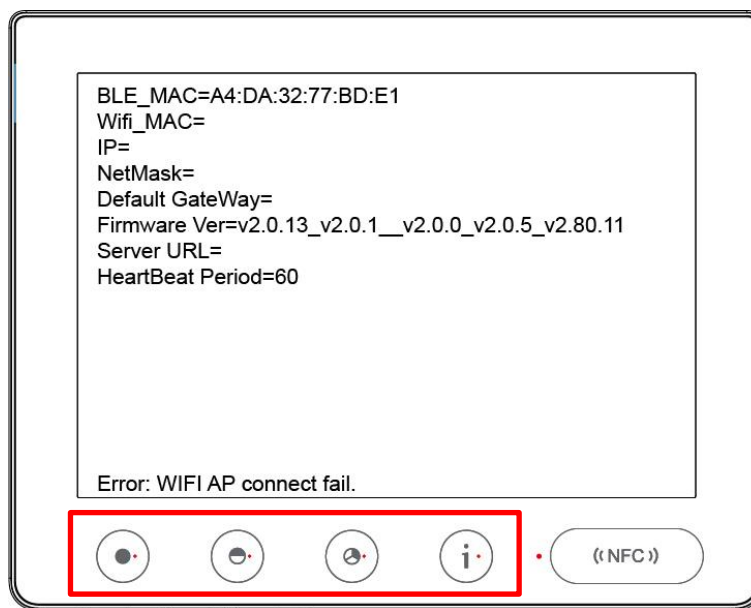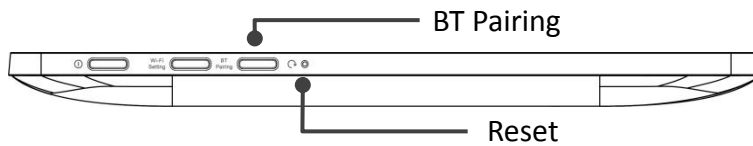
Step 2.   Open Wi-Fi config tool execute, the top of window will show the version.
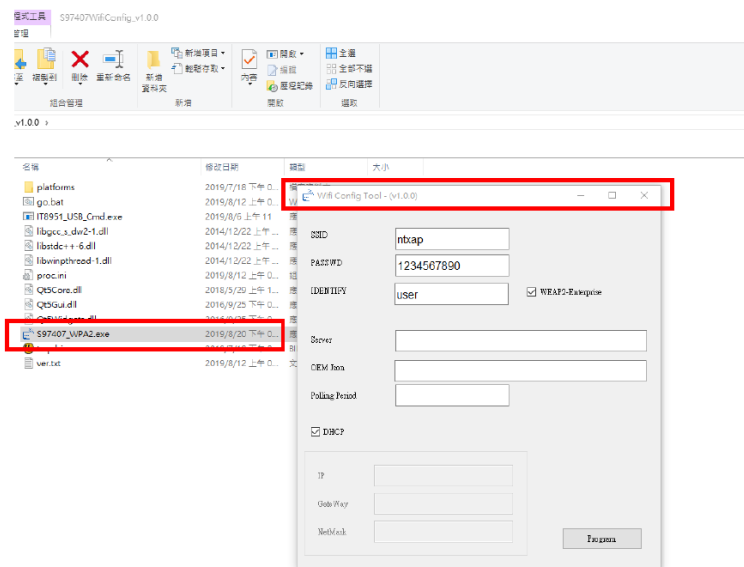
Step 3.   Fill up all fields which users want to setting. After finished it, press [Program] to generate tmp.bin.

Digital Signage User Manual
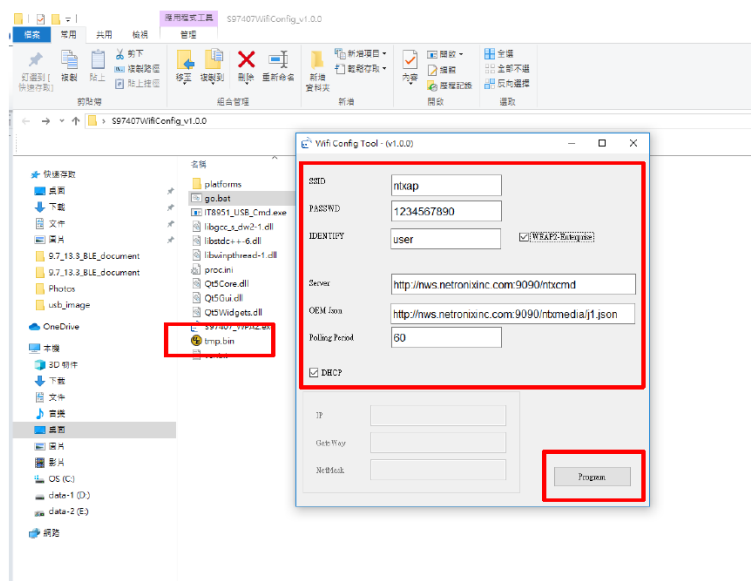
Step 4.   Executed go.bat to write Wi-Fi config file to device.
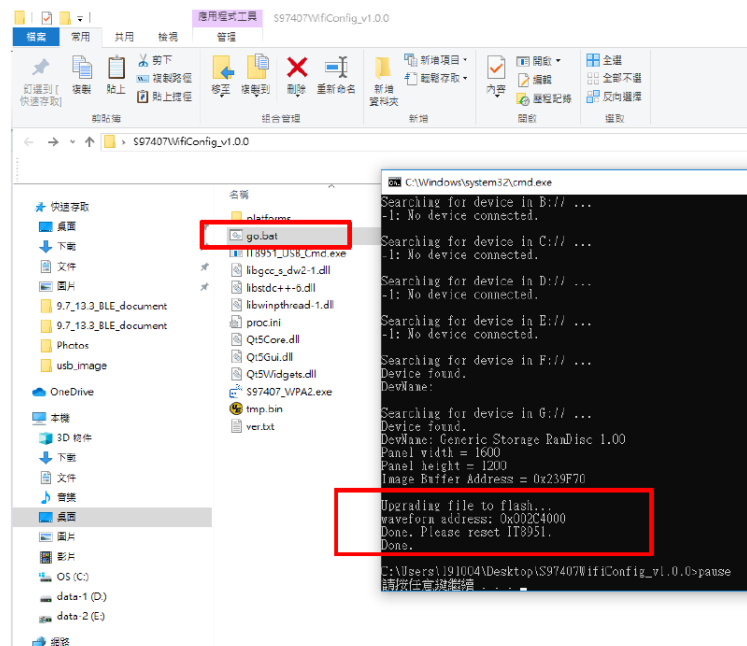
Step 5.   After completing the above steps, please reset the device.

Note: If the pairing setting failed, maybe USB transfer have a problem. Please re-plug the USB and repeat the above steps.

Digital Signage User Manual

5. Installation Step

After executing Wi-Fi Config setting steps, it indicates that the device connection settings have been completed. The device can be used, and the operation steps are as follows.

Step 1.   Press [Power] key 5 seconds to turn on the device.

Power
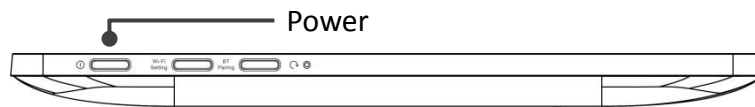
Step 2.   Wait for the LED (white) go out.
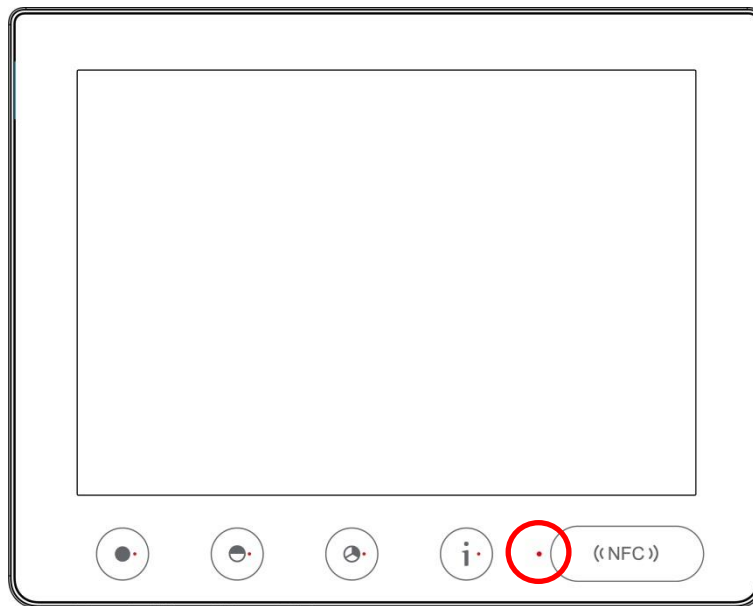
Step 3.   The screen will display the logo image.

Digital Signage User Manual
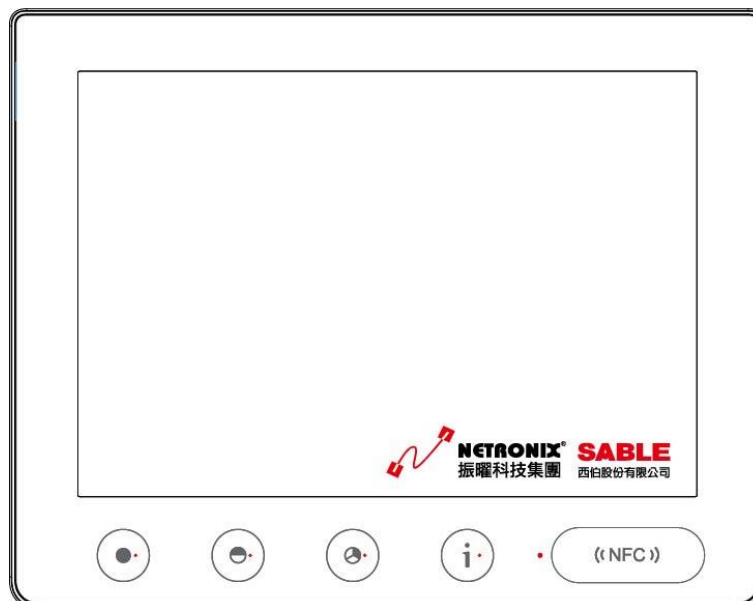
Step 4.   Show connection result

(1) The following is AP connection success, please skip to Step 5.


```
BLE_MAC=A4:DA:32:77:BD:E1
Wifi_MAC=58:b0:d4:65:43:21
IP=192.168.7.165
NetMask=255.255.255.0
Default GateWay=192.168.7.1
Firmware Ver=v2.0.13_v2.0.1__v2.0.0_v2.0.5_v2.80.11
Server URL=http://nws.netronixinc.com:9092/ntxcmd
HeartBeat Period=60
```
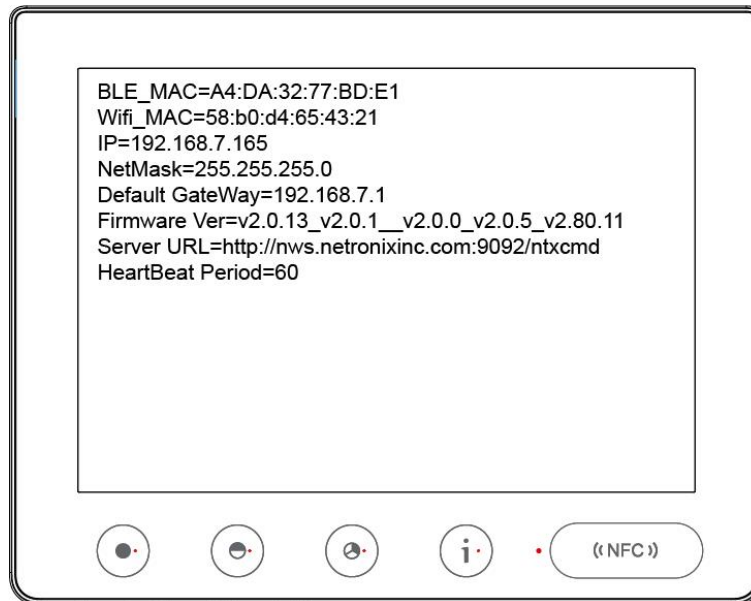
(2) The following is Wi-Fi AP connect fail, please skip to Step 6.


```
BLE_MAC=A4:DA:32:77:BD:E1
Wifi_MAC=
IP=
NetMask=
Default GateWay=
Firmware Ver=v2.0.13_v2.0.1__v2.0.0_v2.0.5_v2.80.11
Server URL=
HeartBeat Period=60
```

Error: WIFI AP connect fail.

Digital Signage User Manual
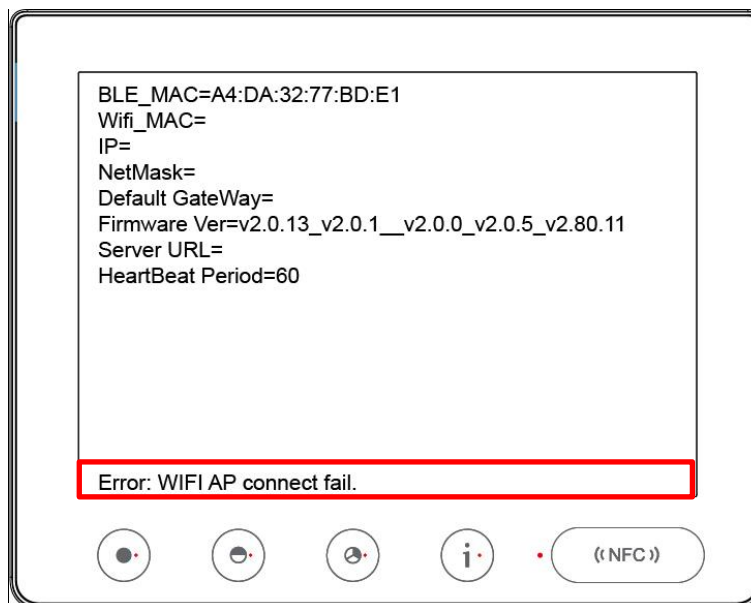
Step 5.   Device will download OEM JSON file, if result is successful

(1) Download JSON successfully, it will show background image. Then, installation steps finished.

(2) Download JSON fail, it will show error in the bottom screen. Please reference to Step 6.
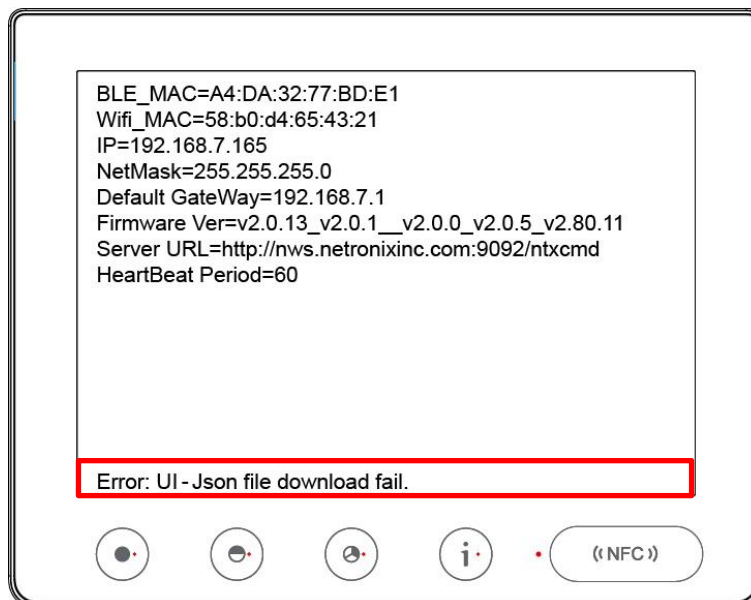
Step 6.   Error message list

In BOOT or POLLING flow, device could has some error situation, below list all of error message which showed in screen.

Error Message Type	Description/ Solution
Wi-Fi AP connect fail	The device can't connect to Wi-Fi AP, please check: 1. SSID/ Password 2. AP Setting
UI-JSON file download fail	There are 2 reasons: 1. Download JSON file fail, please check the JSON file format 2. JSON file format isn't correct, please check the input value
Mcuver rsp fail	Send device version to server fail, please check the server
Reboot=0&updatelevel=? Rep fail	The device doesn't receive update level response, please check the server
Low battery	The device is low battery now and shutdown immediately

Digital Signage User Manual

6. OTA Update

Device on below status will check whether do OTA:

· Power on

· Polling response

Note:

1. Do not OTA update the device when the device is in low battery.
2. Do not reset the device in OTA update process.

Digital Signage User Manual

7. Specification

Item		S97407	S133408
Display		9.7 inch Electronic Paper Display	13.3 inch Electronic Paper Display
		Resolution: 1200 x 825 pixels	Resolution: 1600 x 1200pixels
		Color: Black/White/Red Color	Color: Black/White/Red Color
Case Color		White	White
LED	Status LED	*2 Single LED, Color: Red*1/ White*1	*2 Single LED, Color: Red*1/ White*1
	Function LED	*4 LEDs, Color: Red.	*4 LEDs, Color: Red.
Flash	Flash	8MB	16MB
Connection	WiFi	2.4GHz IEEE 802.11 b/g/n	2.4GHz IEEE 802.11 b/g/n
	BLE	Bluetooth Low Energy (BLE) 4.0	Bluetooth Low Energy (BLE) 4.0
	Zigbee	2.4GHz	N/A
	NFC	NFC Reader Support read the Card ID only without cryptography key, and No support NFC security	NFC Reader Support read the Card ID only without cryptography key, and No support NFC security
	Buzzer	*1, for NFC reader	*1, for NFC reader
Interface	Micro USB Slot	*1, Charging only, No support data transferring	*1, Charging only, No support data transferring
Control Buttons	Power Key	*1, Press to power on/off	*1, Press to power on/off
	WiFi setting Key	*1, Press to trigger Bluetooth for Wi-Fi setting	*1, Press to trigger Bluetooth for Wi-Fi setting
	BT Pairing Key	*1, To be defined	*1, To be defined
	Reset Hole	*1, Reset button	*1, Reset button
	Function Buttons	*4 Buttons	*4 Buttons
Battery		Li-ion Polymer Battery 3.8V with 3,035mAh	Li-ion Polymer Battery 3.8V with 3,035mAh
Power Supply		Charging by USB cable	Charging by USB cable
Mounting Interface		Support 75x75mm VESA mount No including VESA mount package kit and screws	Support 75x75mm VESA mount No including VESA mount package kit and screws
Accessory	USB Cable	*1, 1 meter	*1, 1 meter
Operating temperature		10°C ~ 40°C	10°C ~ 40°C
Dimension (W*H*D)		247.3*196.5*17.7mm	318.74*257.88*19.7mm
Weight		515g	TBD

Digital Signage User Manual