

Introduction of the Spectra 6 EPD

Model: SA1P02-B / SA1P02-X



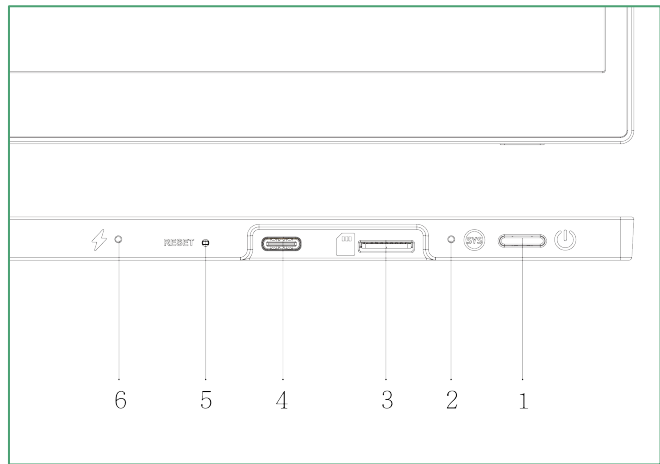
online link for this decoument

Firmward version v2.0.x & v3.0.x

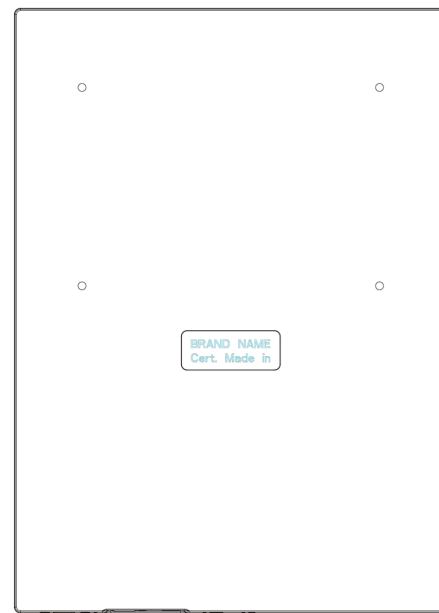
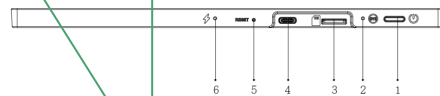
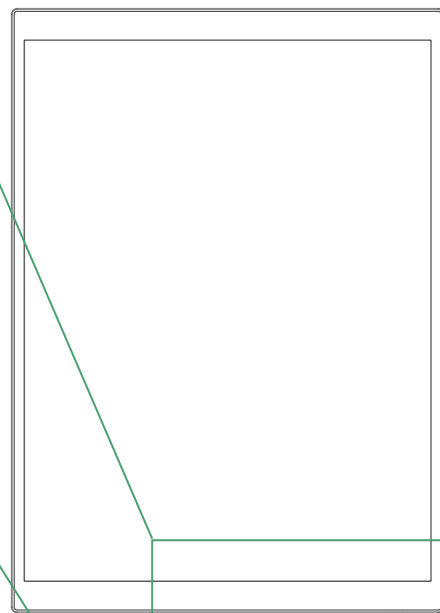
Part I

Appearance

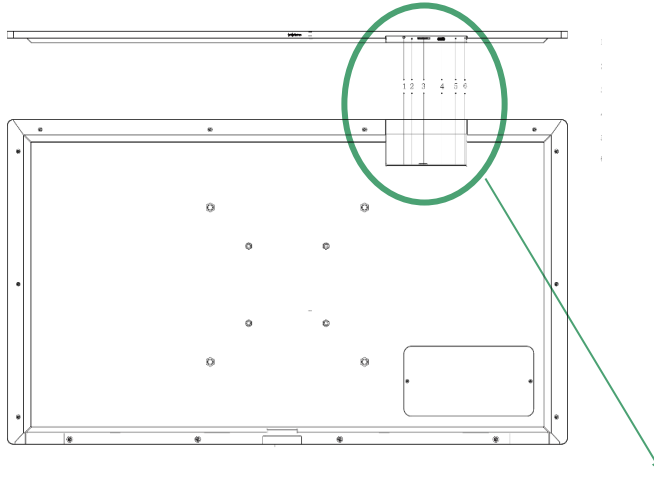
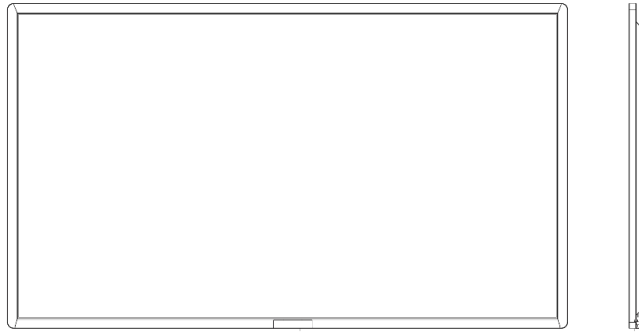
13.3 inch



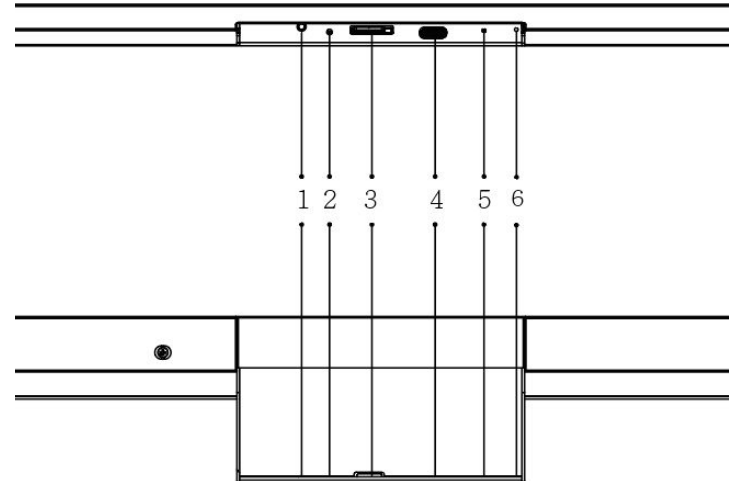
1. Power key
2. LED
3. Micro SD
4. USB-C
5. Reset key
6. Charger LED



31.5 inch



1. Power key
2. LED
3. Micro SD
4. USB-C
5. Reset key
6. Charger LED



Part II

Turning the device on and off

Turn on the device

- (with battery) Short press the power key 1 time to boot the system
- (without battery) Connect the power adapter, the system will boot automatically

Additional Notes:

When powering on the device, the LED light will turn on after 2 seconds. Then, please wait around 60 seconds for the screen to refresh.

Poweroff

Procedure

1. **Press and hold the power key** until the LED light starts flickering, then release it. The signage will display a white screen and begin shutting down the system.
2. The LED light will turn off when the shutdown process is completed (approximately 1 minute).

Additional Notes:

- To avoid EPD damage it needs about 65 seconds to turn off display power after refresh. Please don't try to turn off device when LED was on if device was set sleep or off mode.
- After the device has fully entered sleep or shutdown mode, press and hold the power key again until the LED starts flickering, then release the power key to power off the system.

Part III

Config setup by phone apps

Signage APP - Download Link

iOS:

[App Store - Signage APP Download Link](#)



Android:

[Play Store - Signage APP Download Link](#)



Step 01. Signage (Phone App) Setting

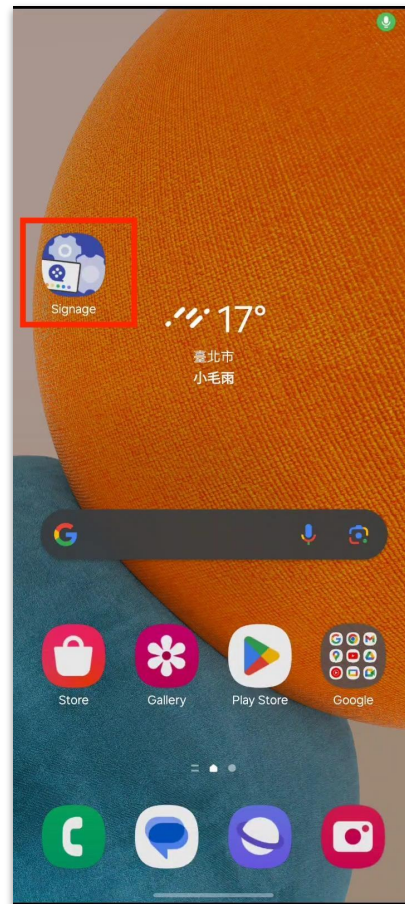
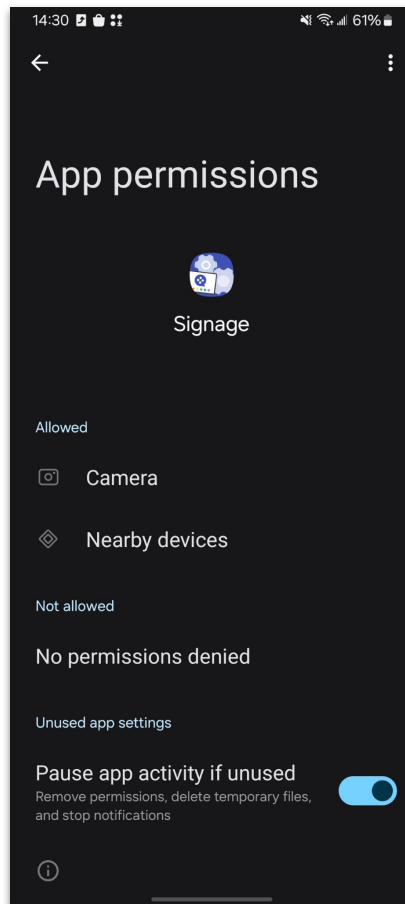
- Please Remember to
Turn **on** Wifi and Bluetooth
Turn **off** Phone's Hotspot (If turn on)

Android Version

- Allow "Signage" App **permission** Request
- Open "Signage" App on your Phone

iOS Version

Please turn to next page.



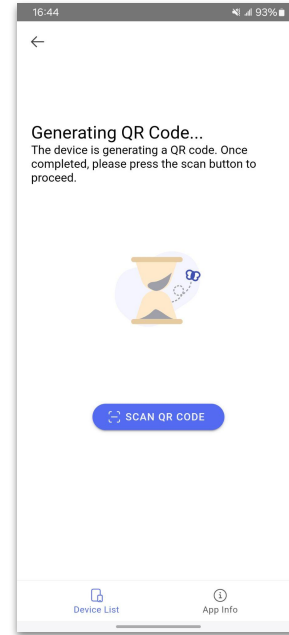
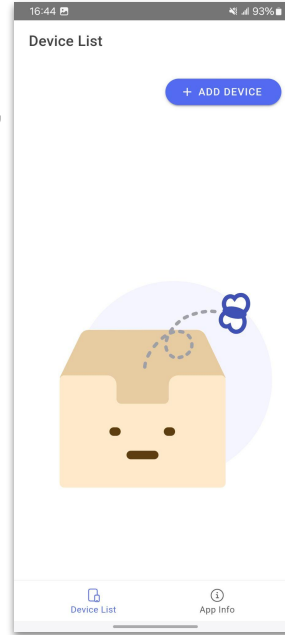
Step 02. Connect to Device

- Click the “+” Button will turn to Scan QRCode Page to add new Device
or
Click **Exist Device item** to connect it.
- After click the “+” Button or Click **Device item**, Phone App will send a beacon via Bluetooth. Signage will show a **QRCode** on screen.
(Wait probably **3 mins** to show QRCode)
- After Signage show **QRCode finished**.
(When Signage not flickering)
Then wait for **10 Seconds** to let Device finish Settings.

Scan QRCode to connect Device

or

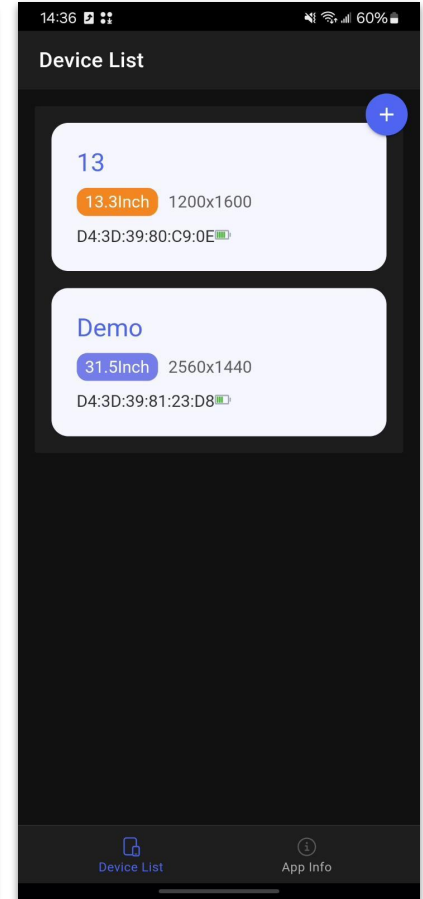
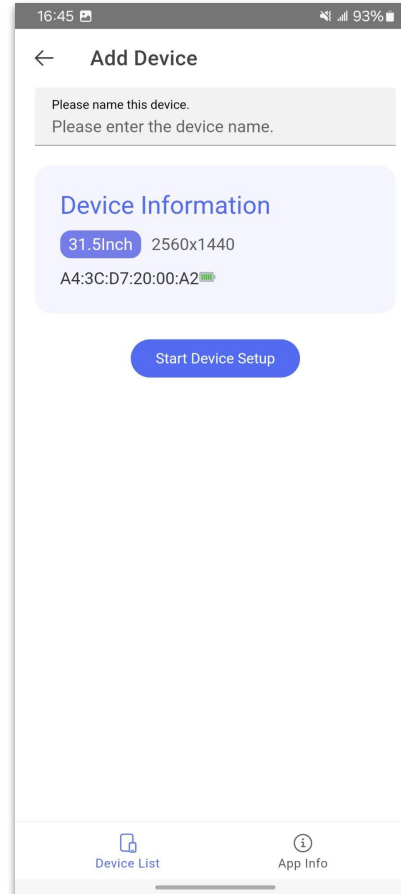
Click Device Item to connect Device.



If the scan screen is blank, your iPhone may be too new. Please try using another device.

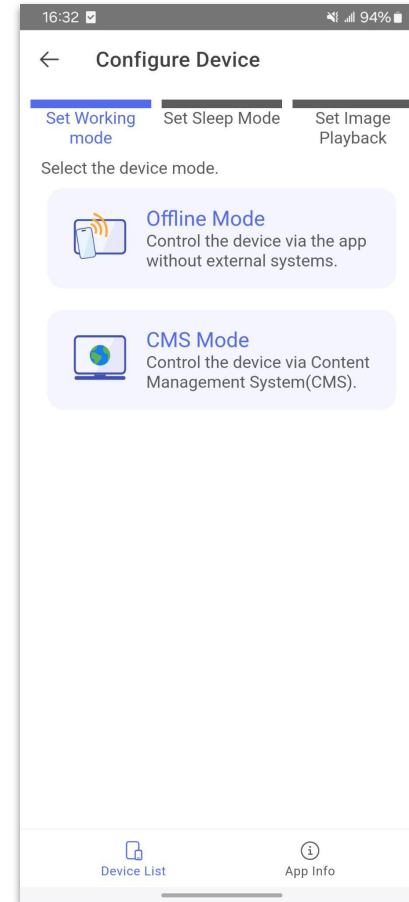
Step 03. First time Connect to Device

- If first time to Connect Device, enter Device name to store it in App.
Next time can see it on Device List.
- Click **Start Device Setup** to start Setting.



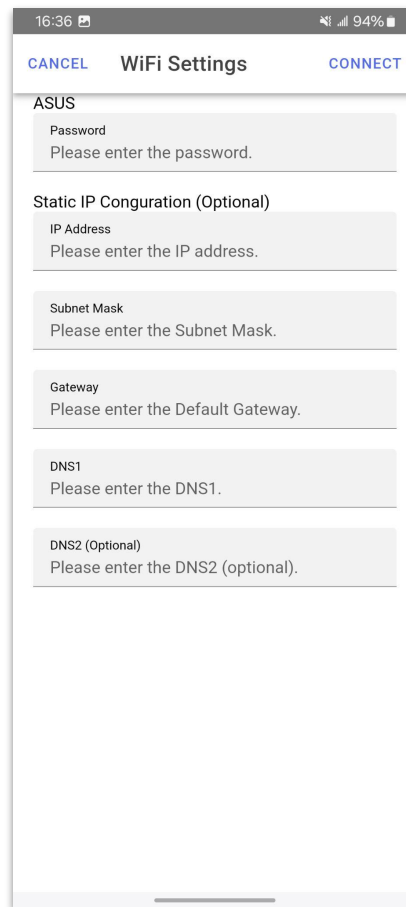
Step 04. Setting Device

- Select Device Mode:
“Mode” could be “auto”(offline) or “cms”(on-line).
- Offline Mode(auto):
Turn to P.22
- Online Mode(cms):
Turn to Next Page.



Step 04. Setting Device - CMS

- Choose the **Wifi-AP** , which Device will connect to after Setting.
- After choose an AP, then Enter Password and other Value if need.



Step 04. Setting Device - CMS / Offline

CMS Mode

- Edit ServerURL and Timezone if need.
- Timezone can set by Phone or select a specific Timezone if need.
- Edit Server Sync Interval.
- Click **Next** Button

Offline Mode

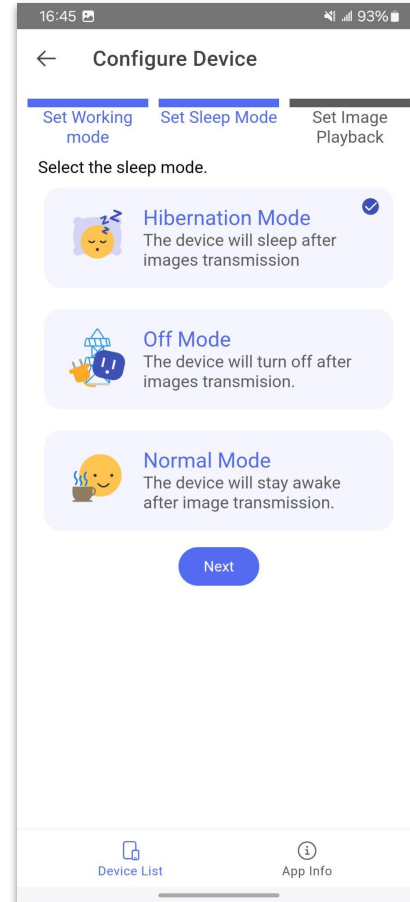
- Edit SlideShow Duration
- Click **Next** Button

The screenshot shows the 'Configure Device' screen in CMS Mode. At the top, there are four tabs: 'Set Working mode', 'WiFi Settings', 'Configure CMS' (which is selected), and 'Set Sleep Mode'. Below the tabs, there are three input fields: 'Server URL' with the value 'https://api.ezread.com.tw/schedule', 'OTA URL' with the value 'https://cms.ezread.com.tw', and 'Set CMS Sync Interval' with the value '10' and a unit dropdown set to 'minute(s)'. Below these fields, there is a toggle switch for 'Set Timezone using Phone' which is turned on, with a note stating 'The system will sync with phone's timezone when enabled.' and the current time zone 'GMT+08:00 Taipei Standard Time'. A blue 'Next' button is at the bottom. The bottom navigation bar has 'Device List' and 'App Info' icons.

The screenshot shows the 'Configure Device' screen in Offline Mode. At the top, there are three tabs: 'Set Working mode', 'Set Sleep Mode', and 'Set Image Playback' (which is selected). Below the tabs, there is a section for 'Image Slideshow Duration' with a value of '180' and a unit of 'seconds'. Below this, there is a note 'Time range: 180-86400 seconds'. A blue 'Next' button is in the center. The bottom navigation bar has 'Device List' and 'App Info' icons.

Step 04. Setting Device - Power Mode

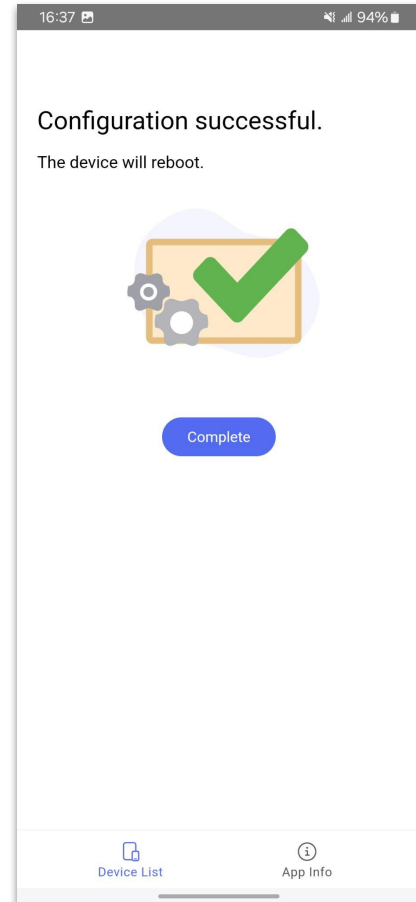
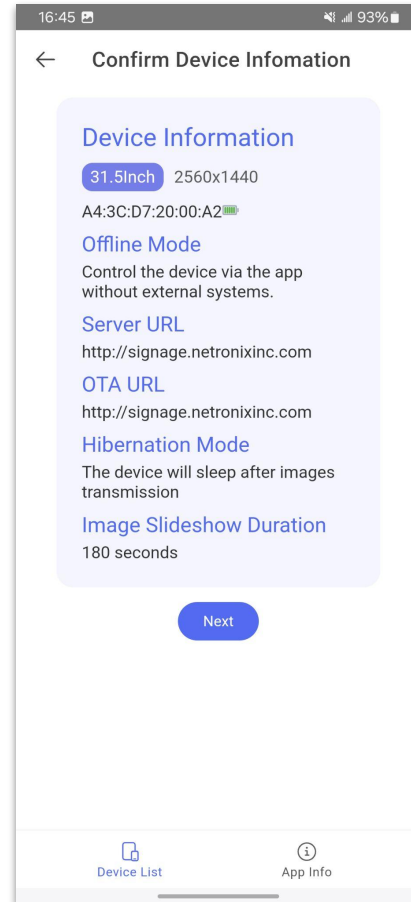
- “PowerMode” could be “normal”,
“hibernation”(sleep) or “off”. the system will enter
sleep or power-off after slideshow. (refer to [page
link](#))
- Click Next Button.



Step 04. Setting Device - Finish

- Show Setting Parameter values Information to confirm.
- Click **Complete** Button , Phone App will send the Setting values to Device.

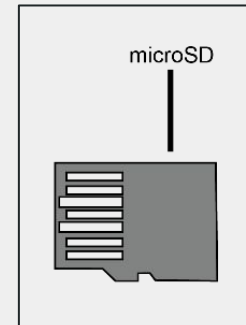
After Device received, App will show Complete Dialog to Notify user finished.
- Then Signage will **reboot automatically**, and Wait for **3 mins** to show information screen as following .



Part VI

Config setup via Micro SD-Card

(Basic functions : [offline slideshow without power control](#))



Setp 1. Configuration Setup Tool

- 01 . Connect a Micro SD-card to your computer and delete all content on this SD-card.
- 02. To access the website of the config setup tool using Chrome, the link : <https://cms.ezread.com.tw:4443/>
- 03. Please refer to the operation on the right

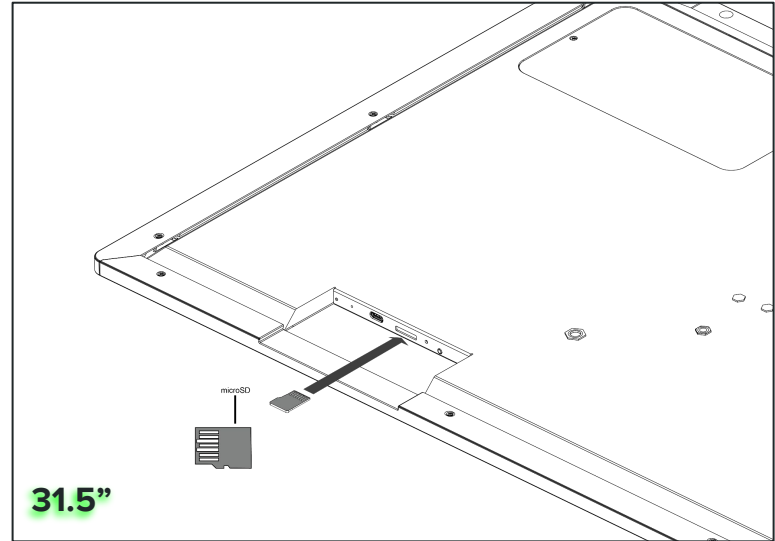
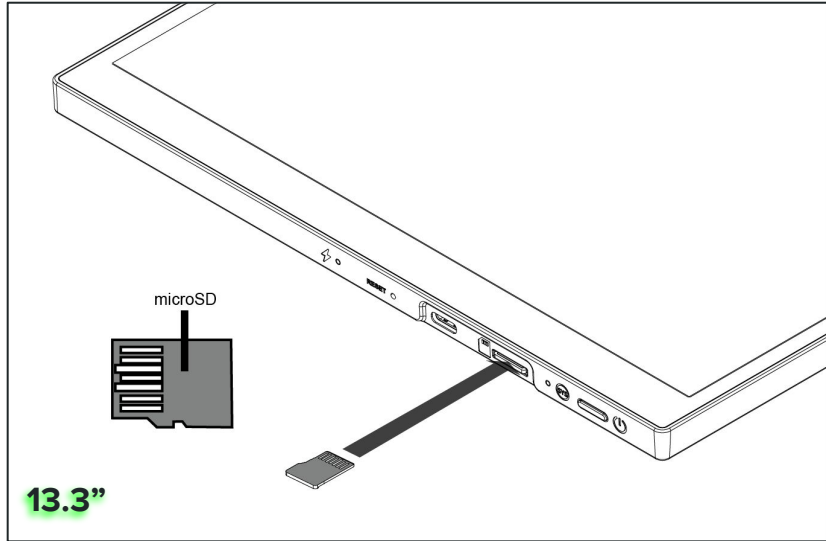
- All image files require to be any format with resolution :
31.5" : 2560 x 1440
13.3" : 1200 x 1600

Sample images of the Netronix E-paper : ([Link](#))

The screenshot shows the 'SD Tool' configuration interface. At the top, there's a language dropdown set to 'English'. The 'Basic Settings' section includes a 'Customer' field with 'NB', a 'Mode' selection with 'Standalone Mode Local image slideshow' highlighted (1), a 'CMS Mode Control via CMS' option, a 'Power Mode' selection with 'Normal Mode Stay active after refresh' highlighted (2), and a 'Time Zone' dropdown set to '(GMT+08:00) Taipei'. The 'Standalone Mode' section includes an 'MCU Type' selection with 'SOC' chosen, a 'Size' dropdown with '31.5" (2560x1440)' highlighted (3), a 'Rotate' selection with '0°' chosen, an 'Interval (seconds)' field with '180' and a note 'Must be at least 150 seconds', a 'Select Image' area with a 'Select Images' button highlighted (4), and an 'SD Card Path' field with a 'Browse' button highlighted (5). At the bottom, there's a 'GENERATE CONFIG' button highlighted (6).

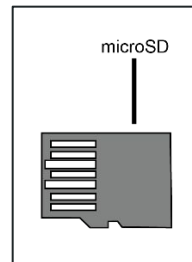
Setp 2. Insert Micro SD-Card and Boot system

- 01. Make sure that device is **turned off**
- 02. Insert the Micro SD-Card into the device
- 03. Connect the power adapter and power on the device
- 04. The system will sync the image files and configurations from SD-Card **every time it starts.**



About the content files in the Micro SD-card

- The root directory of a Micro SD-Card
 - Image files : {Micro SD-Card}/image/slideshow/****.png
 - Configure file : {Micro SD-Card}/signage_configure.json
 - Control the first screen as information page : {Micro SD-Card}/show_info



D :		
名稱		尺寸
▼ image		1 個項目
▼ slideshow		7 個項目
01.png		3.7 MB
02.png		6.8 MB
03.png		5.4 MB
04.png		5.3 MB
05.png		5.1 MB
06.png		7.4 MB
07.png		5.1 MB
show_info		0 位元組
signage_configure.json		239 位元組

About the config file - “signage_configure.json”

- Create a text file which name is “signage_configure.json”.
- For basic functions, the content is :

```
{  
  "Customer": "NB",  
  "Mode": "auto",  
  "PowerMode": "normal",  
  "TimeZone": "GMT+00:00",  
  "SoftAP": "0",  
  "Path": "/sdcard/image/slideshow",  
  "Size": "31.5",  
  "Rotate": "0",  
  "Interval": "180",  
  "WifiSetting": "SSID,000000000",  
  "ServerURL": "",  
  "PackageName": "",  
  "ActivityName": ""  
}
```

- “Mode” could be “auto”(offline) or “cms”(on-line).
- “PowerMode” could be “normal”, “hibernation” or “off”. the system will enter hibernation(sleep) or power-off after slideshow. (refer to [page link](#))
- “Interval” could be the slideshow intervals (in second), the minimum value needs to be 180 seconds
- “WifiSetting” is the Wifi-SSID and password divide by comma. (The device can only connect to 2.4 GHz Wi-Fi networks)
- “TimeZone” Modify the time zone of the device
- For other fields, please refer to the [link](#)

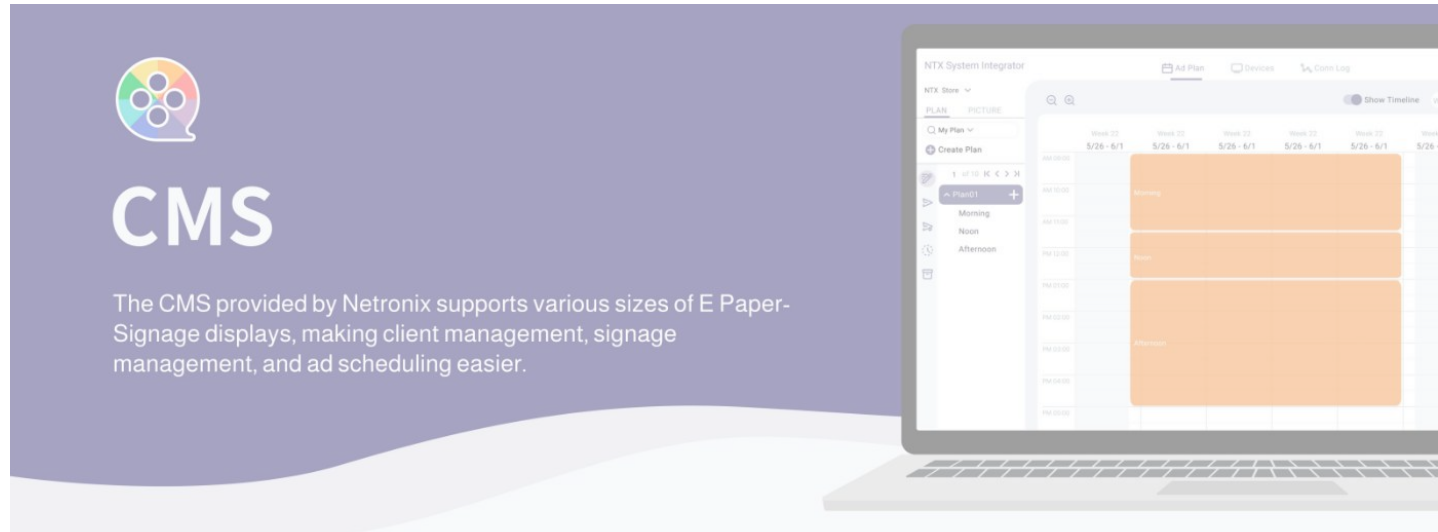
Part V

Config setup via Micro SD-Card

(Basic functions : online CMS without power control)

CMS mode for multiple devices

- **Step 01. Setup the device**
 - Refer to the introduction to setup the device : ([Link](#))
 - The device can only connect to **2.4 GHz** Wi-Fi networks
- **Step 02. CMS 2.0 website** : <http://cms.ezread.com.tw/>
 - Introduction of the CMS 2.0 : ([Link](#))
 - Refer to the user manual to generate a schedule on CMS web site : ([Link](#))



Part VI

Features

LED Light

- When the device is power on , the LED light will “always on”.
- When the device is connect failed , the LED light will “on for 0.5 sec and off for 0.5 sec”.
- When the device is power off , the LED light will “always off”.

Charging LED Light (with battery only)

- When the USB is connected, the Charger LED light will show “green”
- When the battery is charging, the Charger LED light will show “orange”.
- When the battery is fully charged, the Charger LED light will show “green”

Force restart the system

- 1. Keep press and hold the power key.
- 2. short press the reset key 1 time to reboot the Dialog MCU (The LED light will flash after about 3 seconds)
- 3. When the LED light flash again , release the power key.

Show the information screen

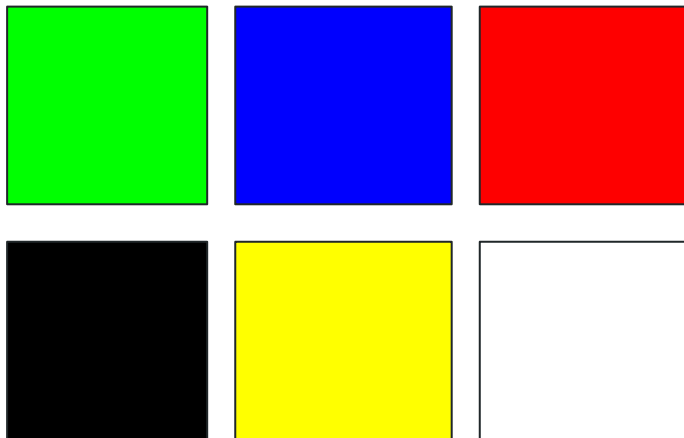
- Create an empty file named "[show_info](#)" into the root directory of the Micro SD-Card, insert the card and restart the device, the screen will display device information for the first time.

```
APP VER. 1.1.5  
Build No. V1.6.4-8636510-90_20241107.144457_userdebug  
DA VER. 0.0.1.27A2_31.5,0.0.019_31.5  
Mode : auto  
SoftAP : OFF  
SSID : ntx_signage  
Interval : 180  
PowerMode : normal  
MAC :D4:3D:39:80:00:00  
ServerURL :https://api.ezread.com.tw/schedule?  
NB  
EPDType : epd_315e6
```

SN : 6c00143c87058921dd0

Show the 6 pure color

- Create an empty file named "[show_6_pure_color](#)" into the root directory of the Micro SD-Card. After inserting the card and restarting, the 6 colors will be displayed in sequence.



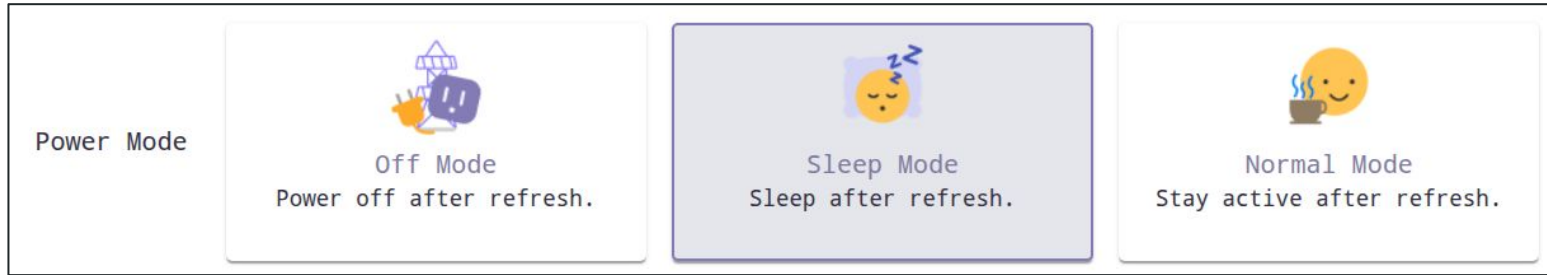
Reset default

- Create an empty file named "[reset_default](#)" into the root directory of the Micro SD-Card, insert the card and restart the device, the screen will reset the system.



Power mode control - Sleep after slideshow

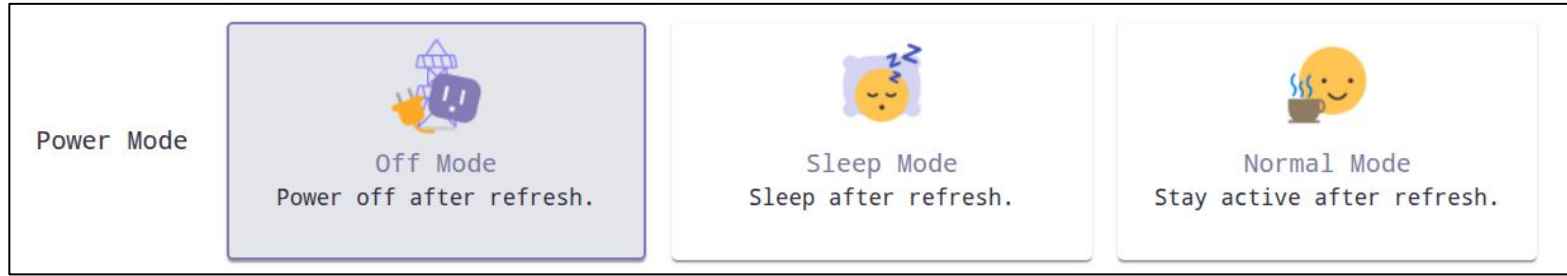
- config file - "signage_configure.json" , the value of parameter "PowerMode" is "hibernation"(Sleep) , parameter "Interval" is recommended to be at least "180"



- The system will enter sleep after the Signage screen refreshes a image.
- The LED light will turn off when the sleep process is completed (about 1 min).
- It will automatically wake up when the interval is up.

Power mode control - Poweroff after slideshow

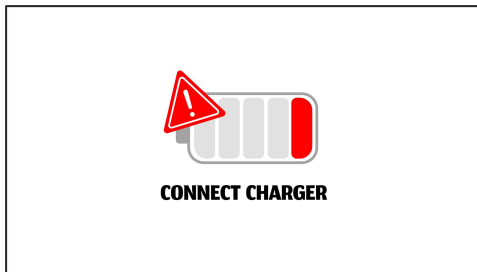
- config file - "signage_configure.json" , the value of parameter "PowerMode" is "off", parameter "Interval" is recommended to be at least "180"



- The system will poweroff after the Signage screen refreshes a image.
- The LED light will turn off when the sleep process is completed (about 1 min).
- When the next display time arrives, it will automatically power on and show the next image.

low battery

- config file - "signage_configure.json", parameter "**NoShowEmptyBattery**" value is "**true**" - means do not display the full screen low battery icon, directly shut down, value is "**false**" - means display the full screen low battery icon, directly shut down



- Both will continue to wait for 72 hours before shutting down in Shipping Mode with a white image.

Usage Scenarios

- Bus Stations, train stations
- Department stores
- Shopping Malls
- Convenience stores

...provide the advertising rotation and related instructions in public open spaces.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

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 device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

NOTE: 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.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction