User Guide Standards

Salt System Board

**For 42″ monochrome ePaper
Display Application**

Table of Contents

1 Introduction

E Ink's 42'' evaluation kit Salt is intended to highlight the features and benefits of the 42'' EPD display. This document will provide details on how to use the Salt to display.

To be advised that EVK is not suitable to use in outdoor as a product because if the condense water occur on EVK, it might cause the short circuit to damage the board.
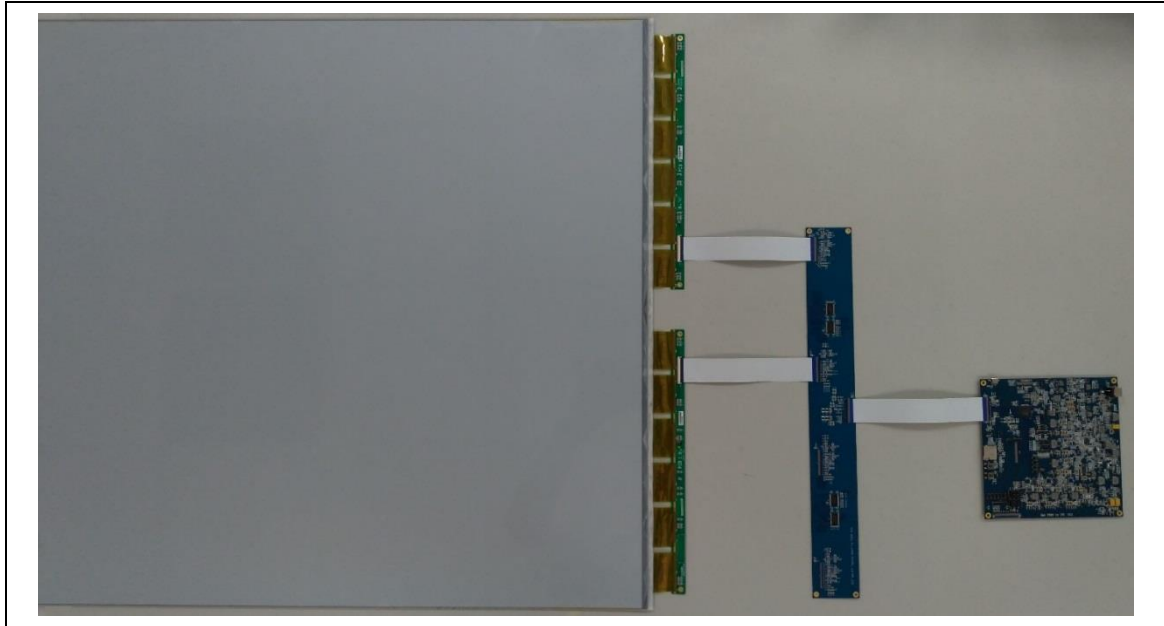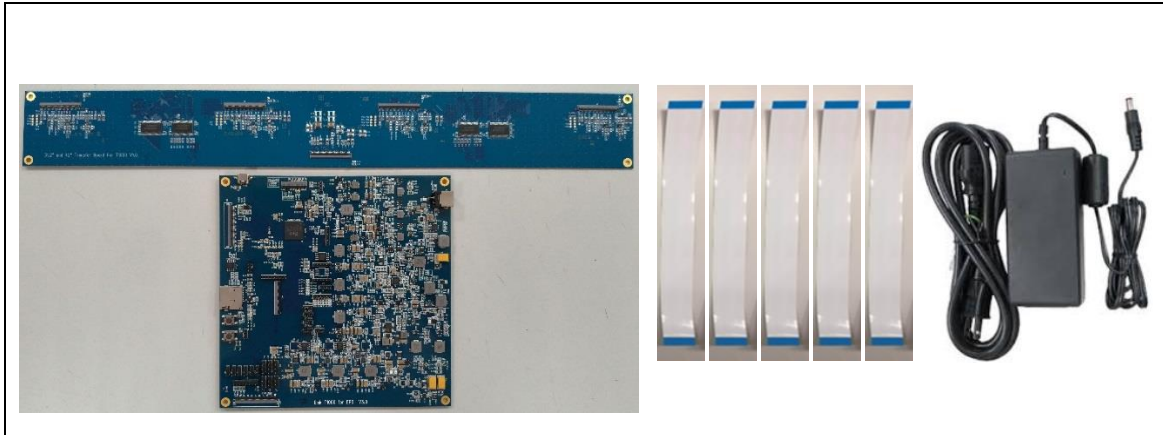
2   Hardware Guide

This section describes the hardware setup of the Salt evaluation kit for 42".

This demo kit contains the following:

- Salt System Board
- FFC cable*5
- Adapter 12V 5A

| Module Name	Description
Salt board	TCON
Transfer board	Bridging of panel and salt board
FFC	Connect for 42" panel and Salt board

3 Usage

(1) Uploading image

When connected to a PC, the interface, AP, could upload pictures in BMP(24bit) or JPG(24bit) format from PC to Salt through Micro USB.

Note : the picture format needs to be fit the resolution of EPD.

(2) Procedure is as following

● Connection

(1) Salt connected to PC.
(2) Connect 42" EPD to Salt. (Tcon board + transfer board)
(3) Connect Micro USB to Salt.
(4) Run "T1000_Windows_AP.exe" software.
(5) Click "Connect" button to make sure the software has connected to Physical Drive.
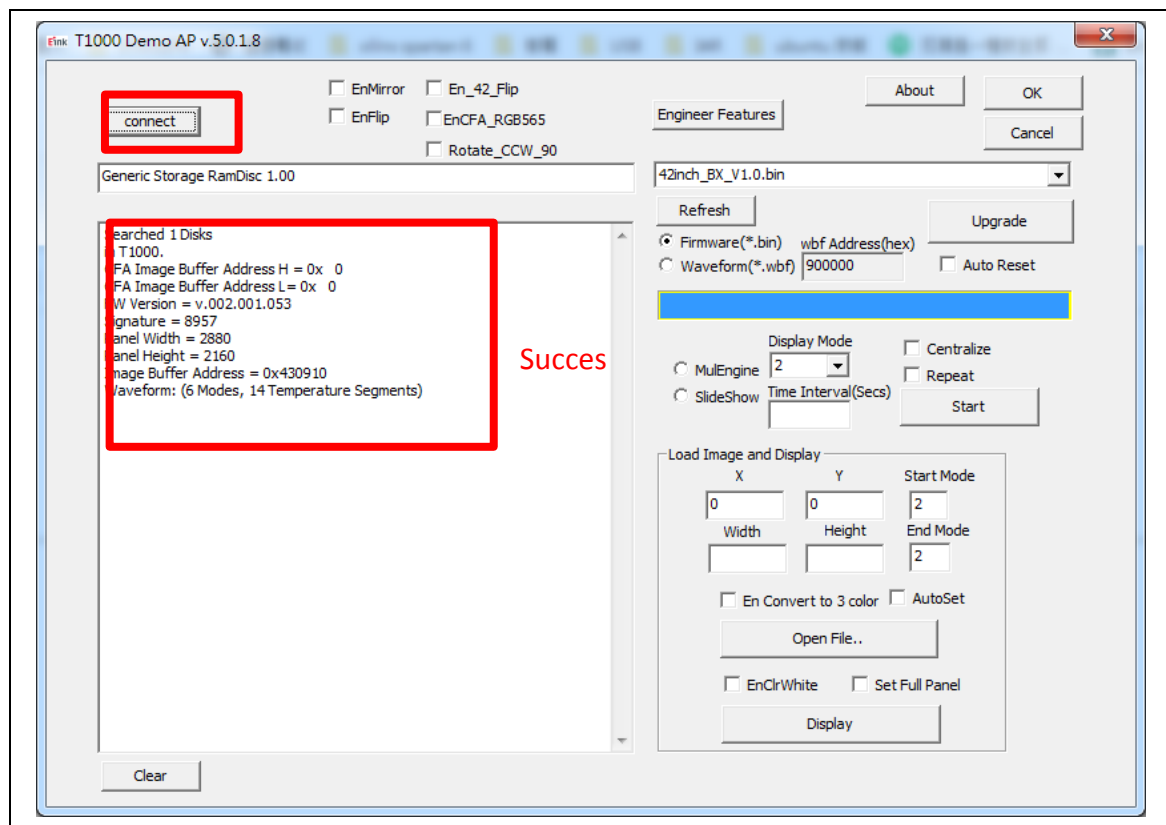
Software connected to Physical Drive

● VCOM Set/Get

 (1) VCOM to set by the AP is currently not valid.

 (2) Currently VCOM is adjusted by variable resistor(VR1), recommend to use plastic screwdriver.

 (3) VCOM voltage is measured by TP_VCOM1.

Plastic screwdriver

VCOM values are marked on the PCB label

-1.84
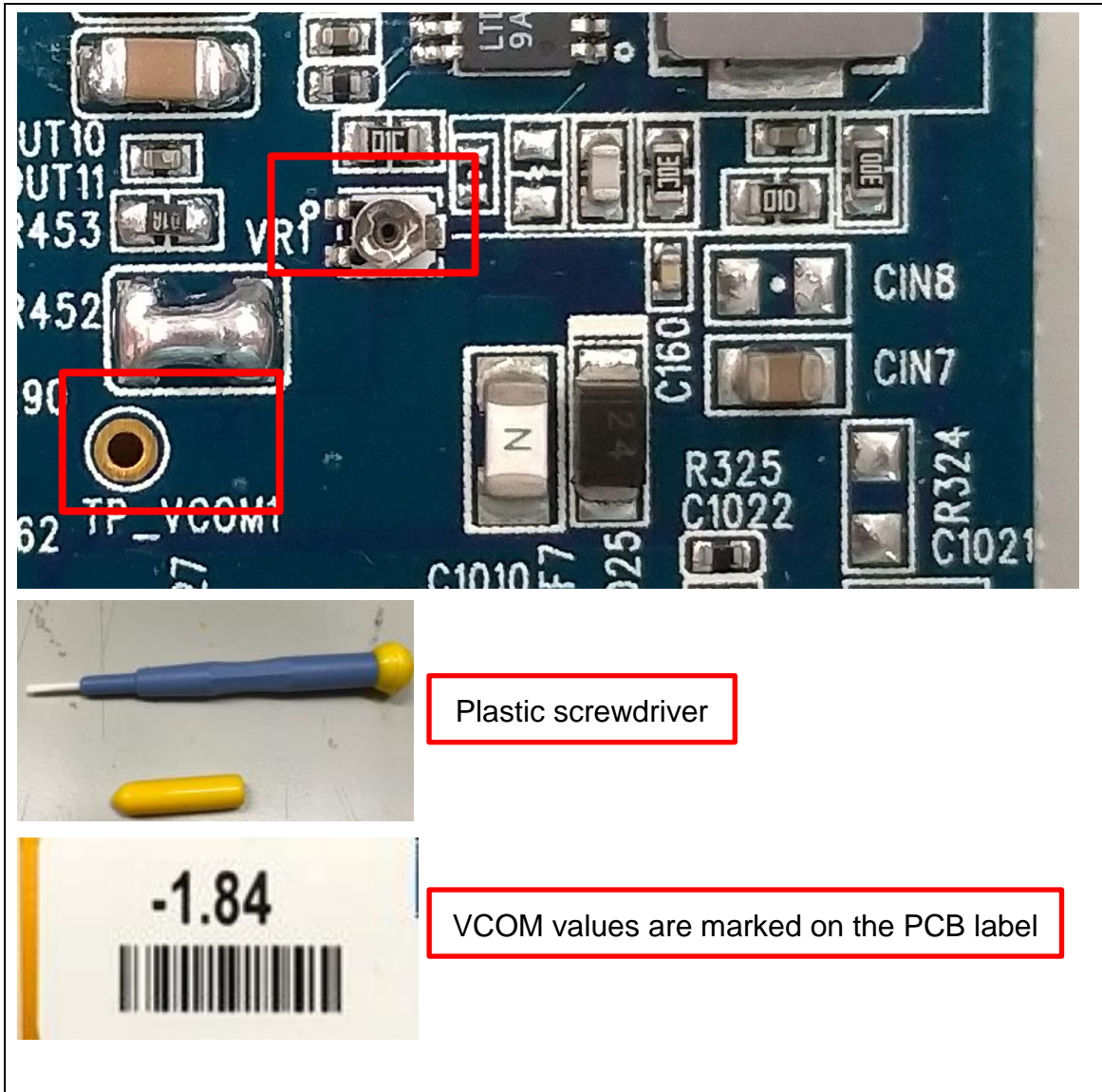
Set/Get VCOM

● Display EPD operation (single image mode)

 (1) Select 〝en_42_flip〞 and 〝Set Full Panel〞.

 (2) Click "Open File.." to load image.

 (3) Edit display area and select waveform mode to display current image.

 (4) Click "Display" to show selected image on EPD.

(5) In the begin of the connection, in order to minimize artifact, to select "EnClrWhite" option and Start Mode/End Mode select 0, click "Display" button, the EPD should show with white picture.

Notice：The "EnClrWhite" is only allow to use in the beginning of the connection.
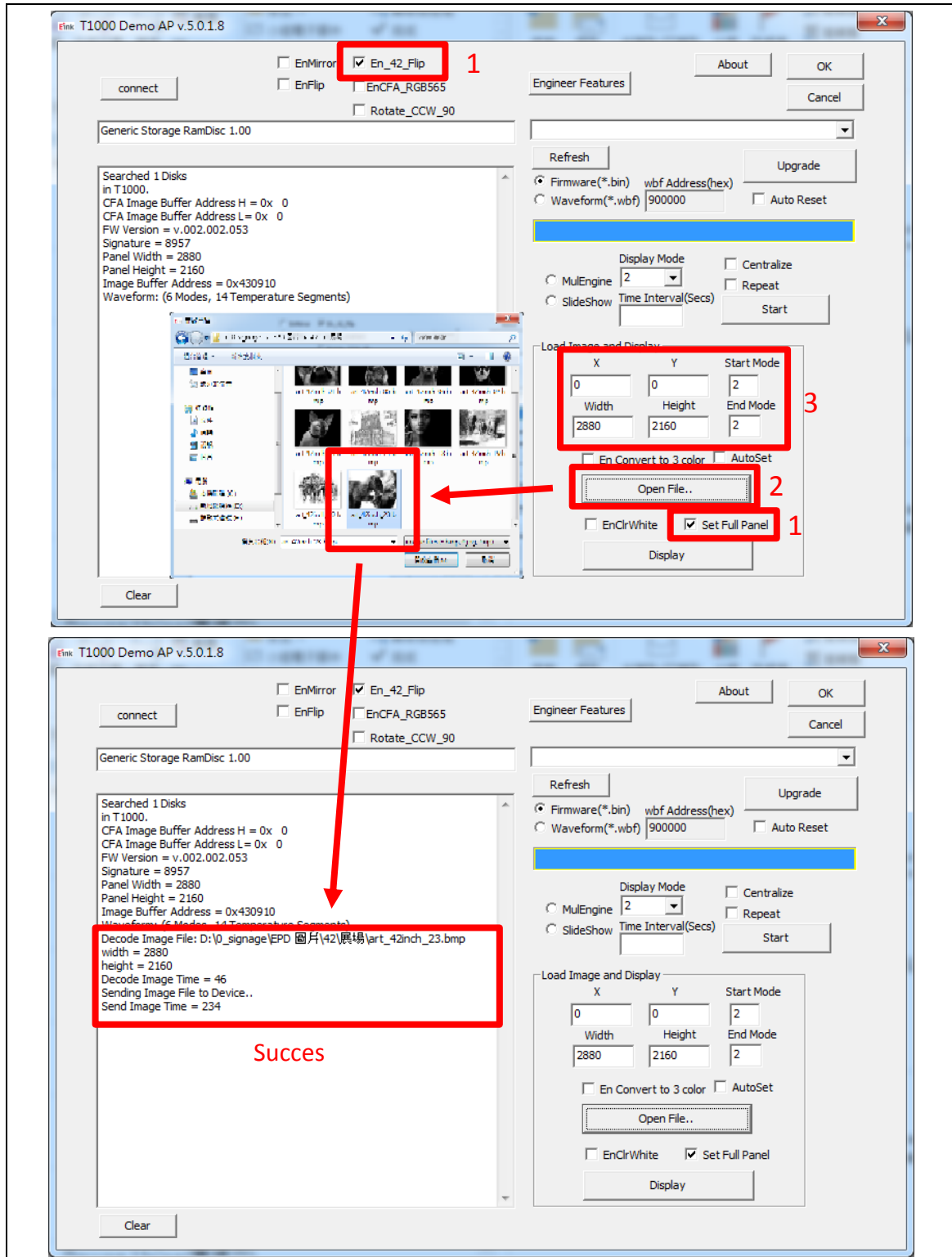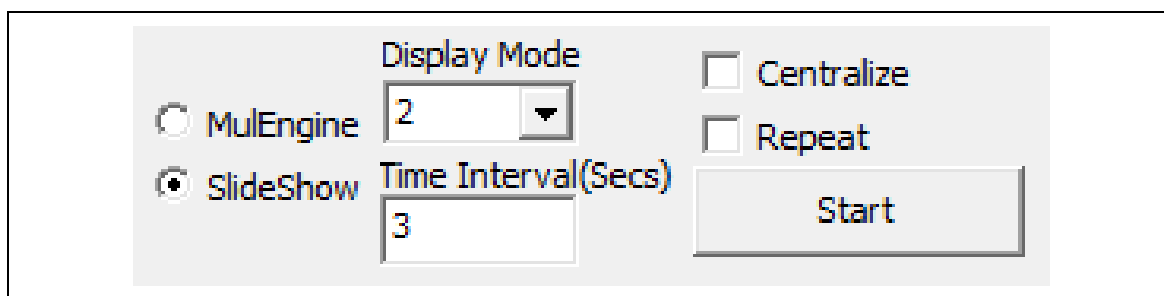

Load image to Salt and display the image
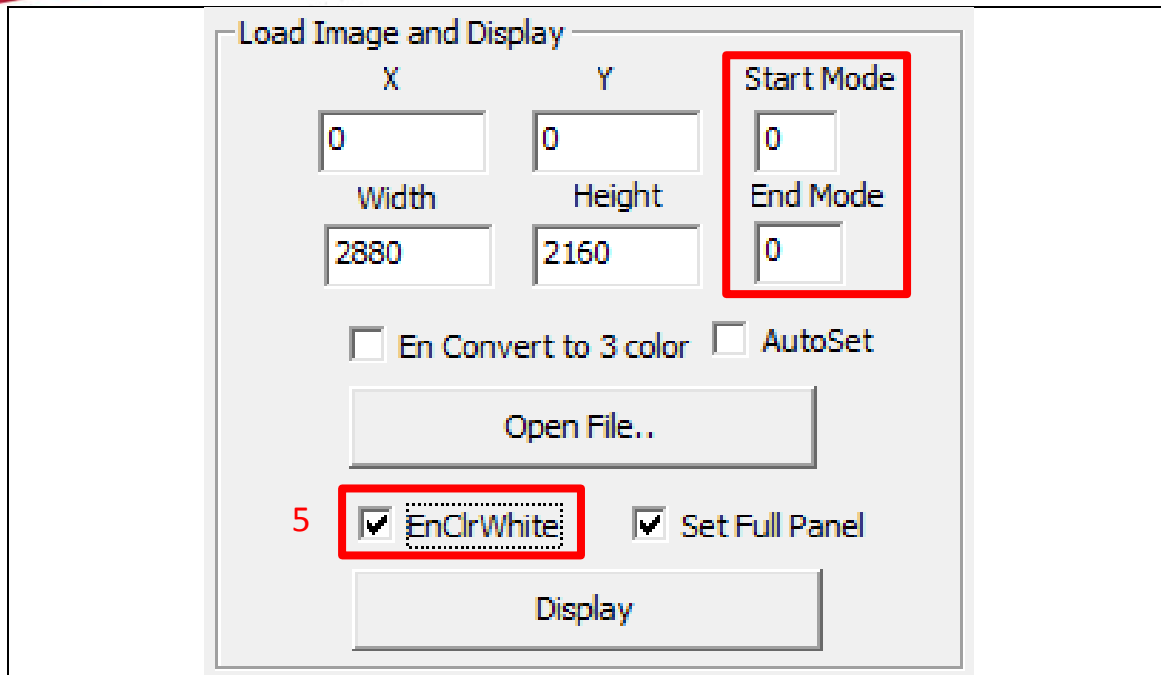
Minimize artifact

- Display EPD operation (slide show mode)

    (1) Salt connected to PC.
    (2) Upload all images under the folder name as "SlideShowImages".
    (3) Set "Display Mode" and "Time Interval".
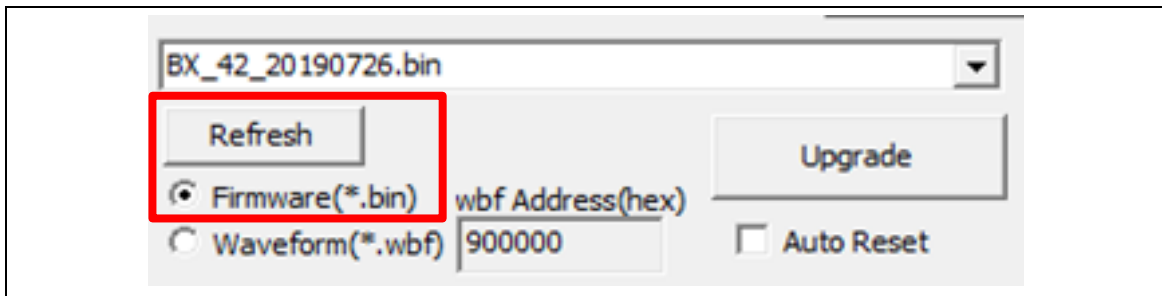   (4) Select "SlideShow" option and click "Start"botton.

Run slideshow

- Other Features Description

    ◆ Firmware Update
   (1) Salt connected to PC.
    (2) Firmware and "T1000_Windows_AP.exe" in the same folder.
    (3) Select the "Firmware" and click "Refresh" button and select the FW.
    (4) Click "Upgrade" button to update FW.
    (5) If update is success, please re-plug the power.(reset)

Select the Firmware

◆ Waveform Update
   (1) Salt connected to PC.
   (2) Waveform and "T1000_Windows_AP.exe" in the same folder.
   (3) Select the "Waveform" and click "Refresh" button and select the WF.
   (4) Click "Upgrade" button to update WF.
   (5) If update is success, please re-plug the power.(reset)
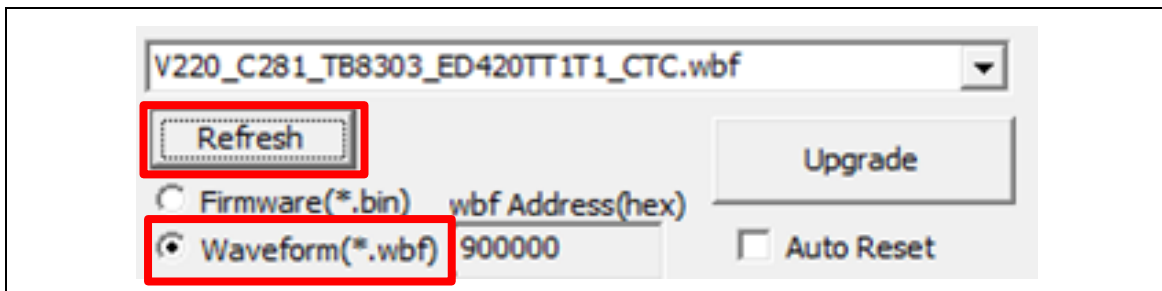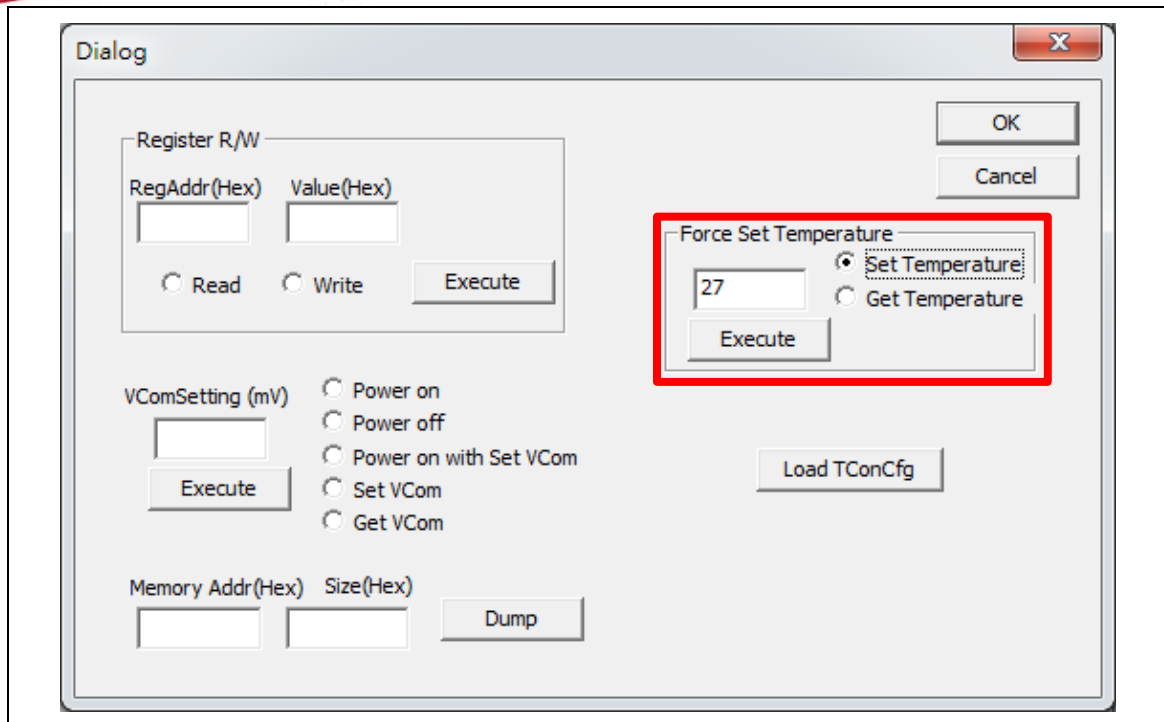

Select the Waveform

◆ Temperature Set/Get
   (1) First Click "Engineer Features" button.
   (2) Set/Get temperature value.
   (3) Click "Execute" button to Set/Get temperature.
   (4) Click "OK" button.

Temperature Set/Get

◆ Checkbox function explanation

Each of the checkbox described above the AP has to be selected before you load an image using "Open File" button based on different firmware.

(1) EnMirror : No function

(2) EnFlip : Select in 31.2'' display, to flip image into Tcon image buffer.

(3) En_42_Flip：Select in 42'' display, to flip left side of the 42" panel in gate scan direction.

(4) EnCFA_RGB565 : Select it When using 31.2" CFA EPD.

(5) Rotate_CCW_90：Select in 31.2'' display if image is landscape, Rotate counter clockwise 90 degrees.
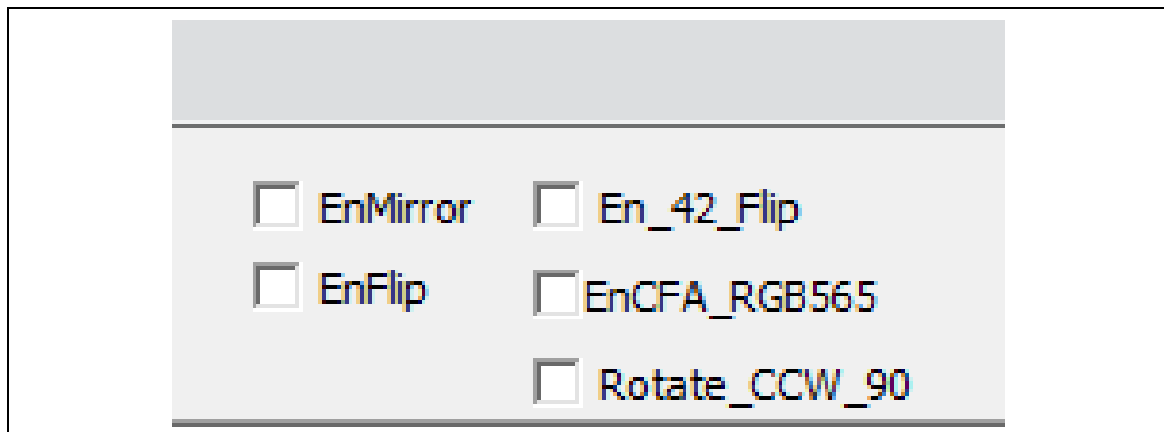
Other Features

4 Contact Information

For more information, please visit

http://www.eink.com

For sales office addresses, please visit

http://www.eink.com/contact_sales.html

5 Legal Information

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● Revision History

Version	Date	Pag	Description	Author
1.2	2019/8/14		Initial	Ryan