



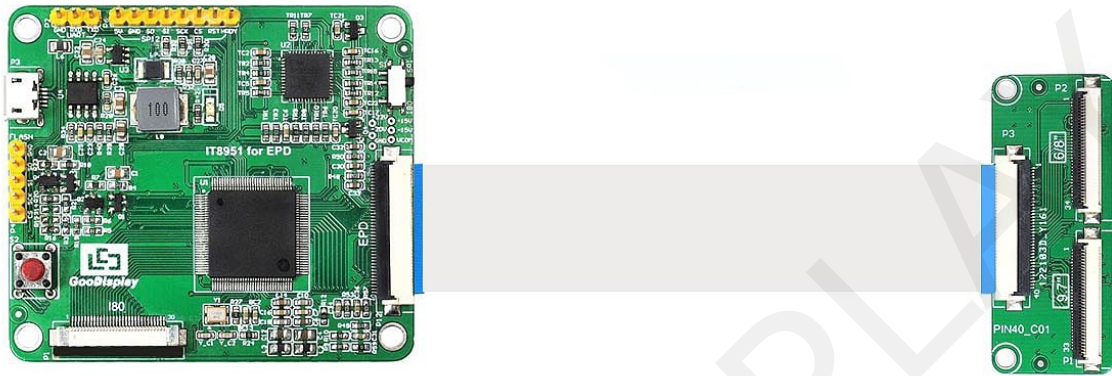
Development Kit for E paper Display



DERPI-T0A

Dalian Good Display Co.,Ltd.

Product Specifications



Customer	Standard
Description	Development Kit for E-paper Display
Model Name	DERPI-T0A
Date	2021/03/25
Revision	1.0

	Design Engineering		
	Approval	Check	Design
			

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GOOD DISPLAY

1. Overview

This development kit is designed to help developers to achieve faster and more smooth development for EPD projects. It supports 9.7 inch parallel interface EPD and supports using upper computer to control displaying.

2. Mechanical Specifications

Parameter	Specification
Model	DERPI-T0A
Platform	Raspberry Pi
Dimension	64.6mm x 56.8mm (DERPI-M0A) 48.7mm x 20.5mm(DERPI-C0A)
Power Interface	USB interface
Sample Code	Available (please contact sales)
Operating Temp.	-20°C~+70°C
Main Function	Learn to drive e-paper display;
Additional Function	None

3. Functions

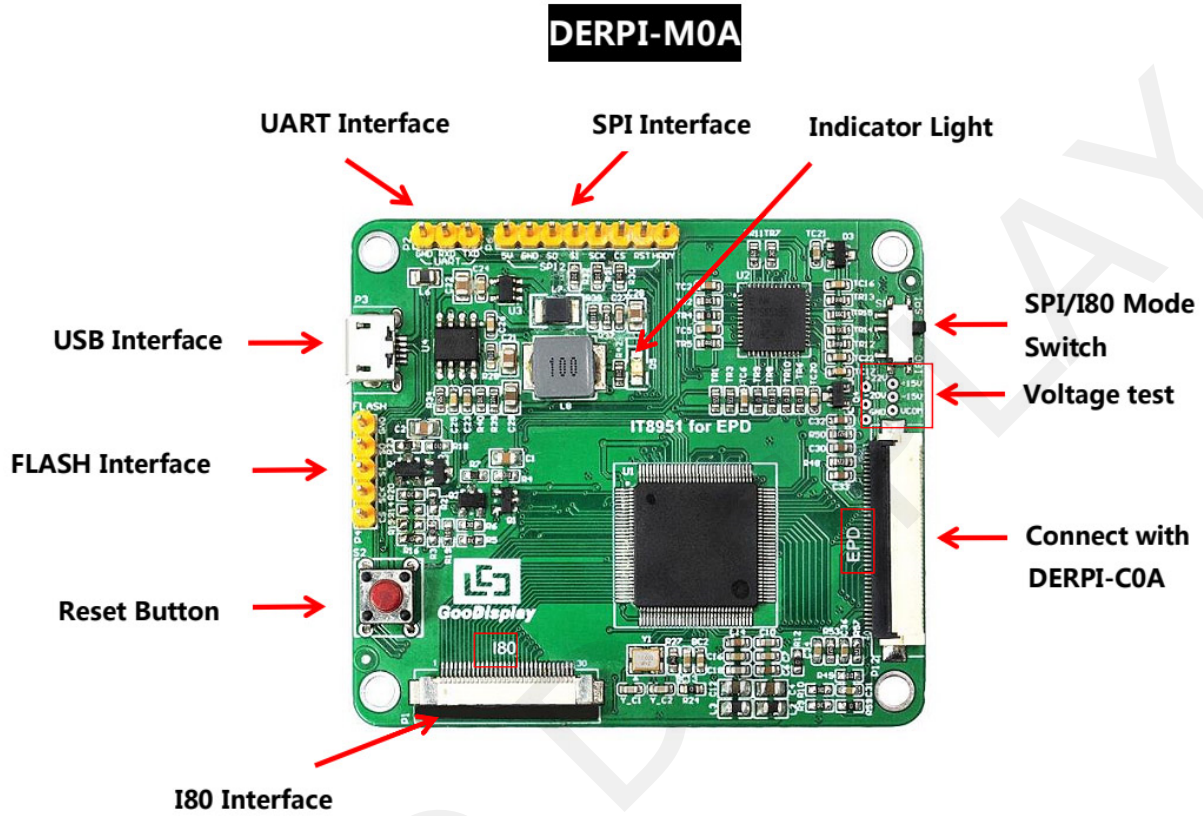


Figure 1: DERPI-M0A

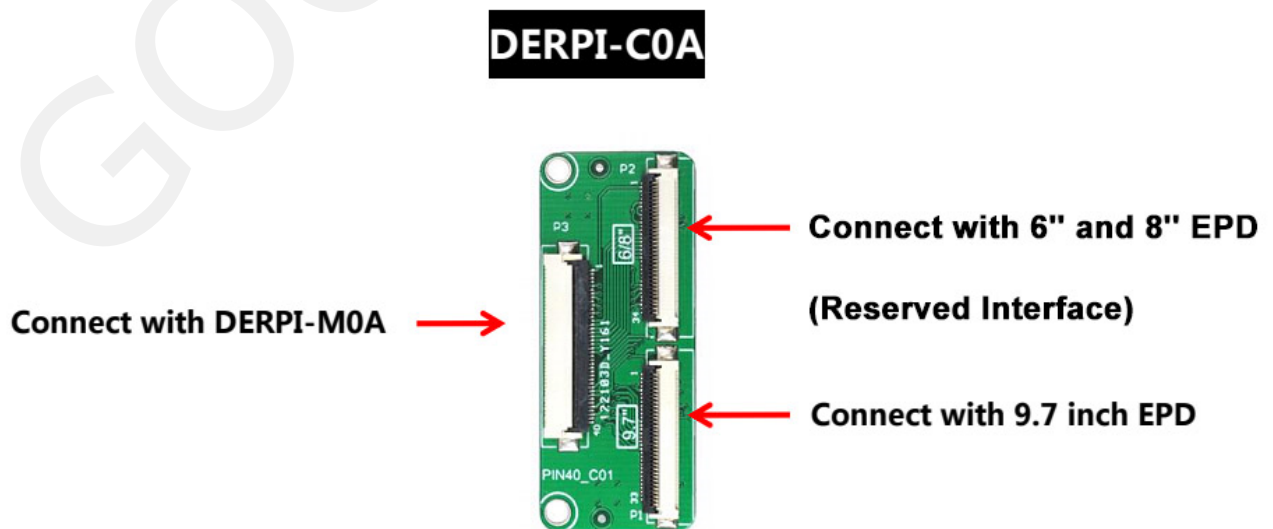


Figure 2: DERPI-C0A



Take EPD GDEP097TC2 shown in image 3 as an example, first connect the DERPI-C0A adaptor panel to the DERPI-T0A development board through FPC wire and then connect the EPD to the DER-C0A adaptor panel.

Note: Connect each section accordingly following EPD' s size and pins based on the contents shown in image 1,2,3.

1. Power Supply Module

Input voltage of circuit board is DC5V, powered by USB interface.

2. Indicator

This development kit has 1 power supply indicator.

3. Communication Section

This development kit supports USB communication.

4. Driver Mode

This development kit supports USB/SPI/I80 modes to drive the EPD.

4. Display Control Mode

1. USB-controlled

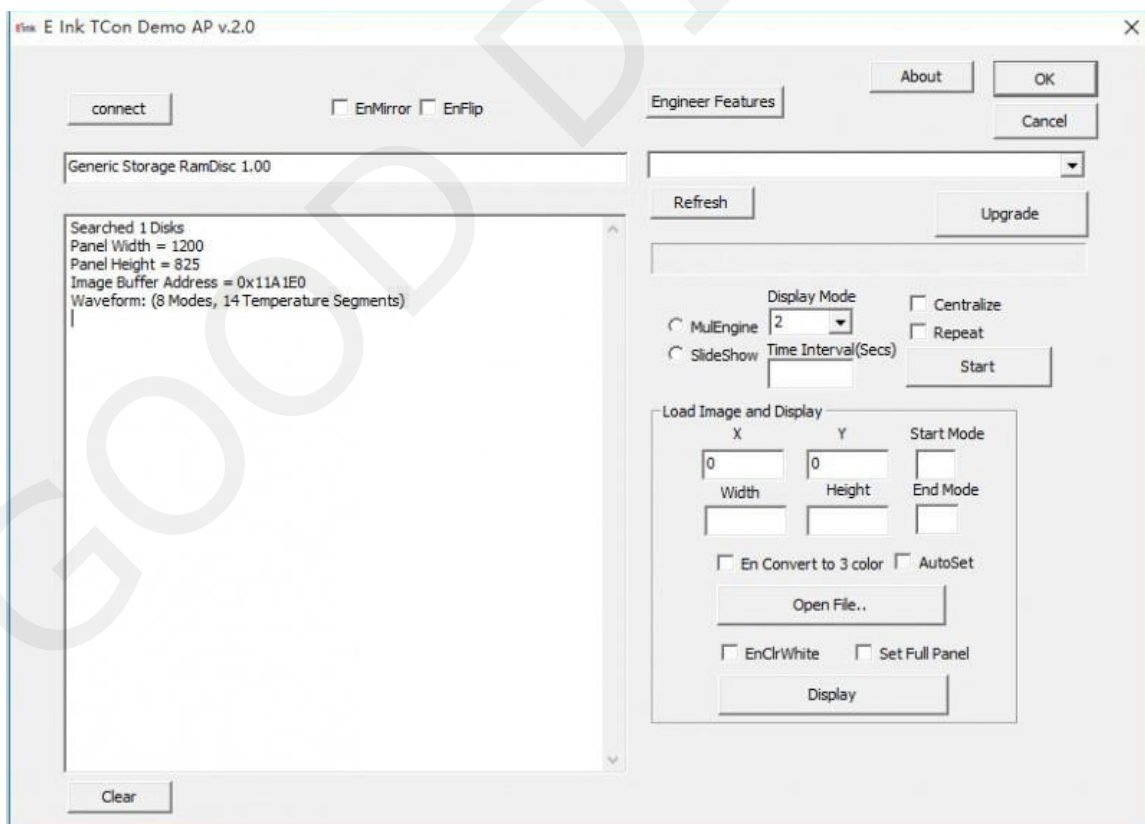
1) Connect the USB interface of driver board to the USB interface of PC.

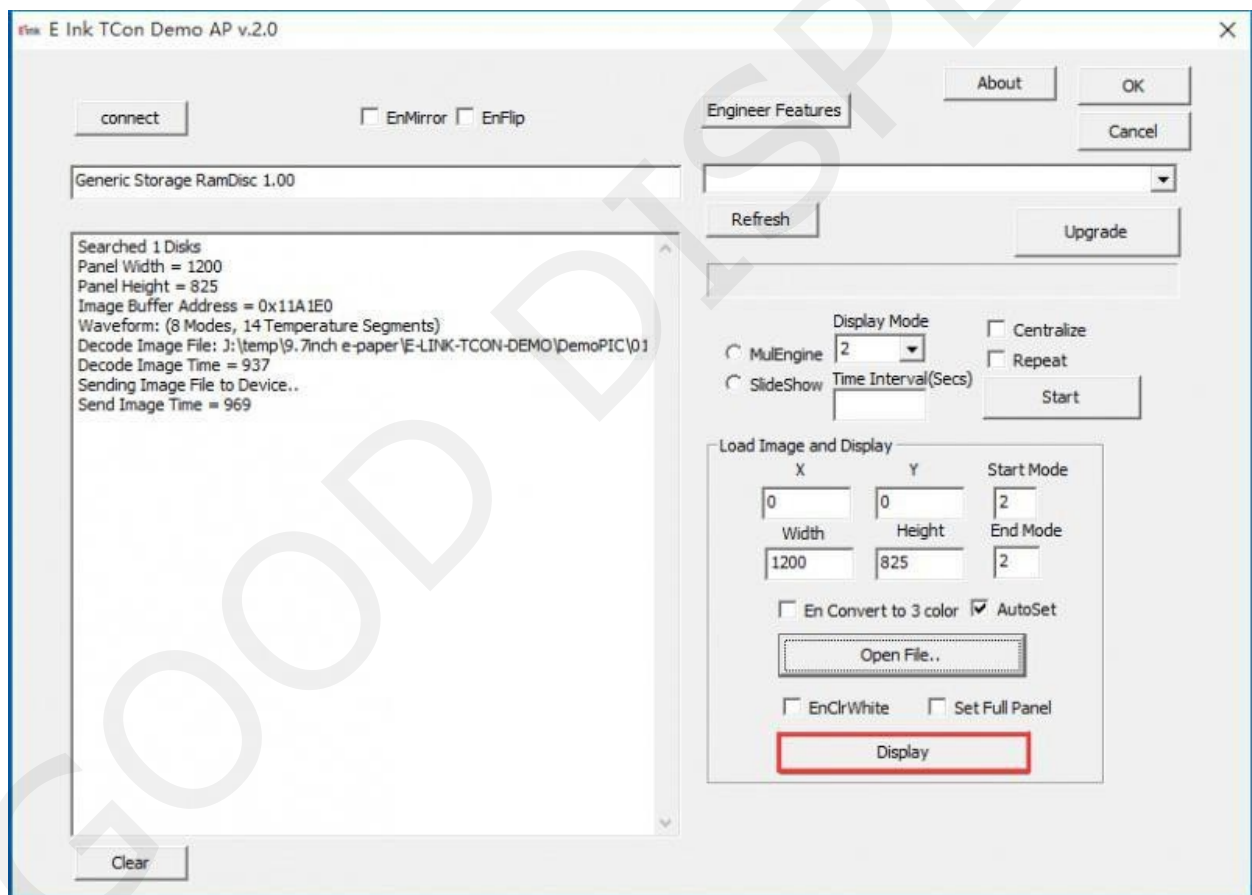
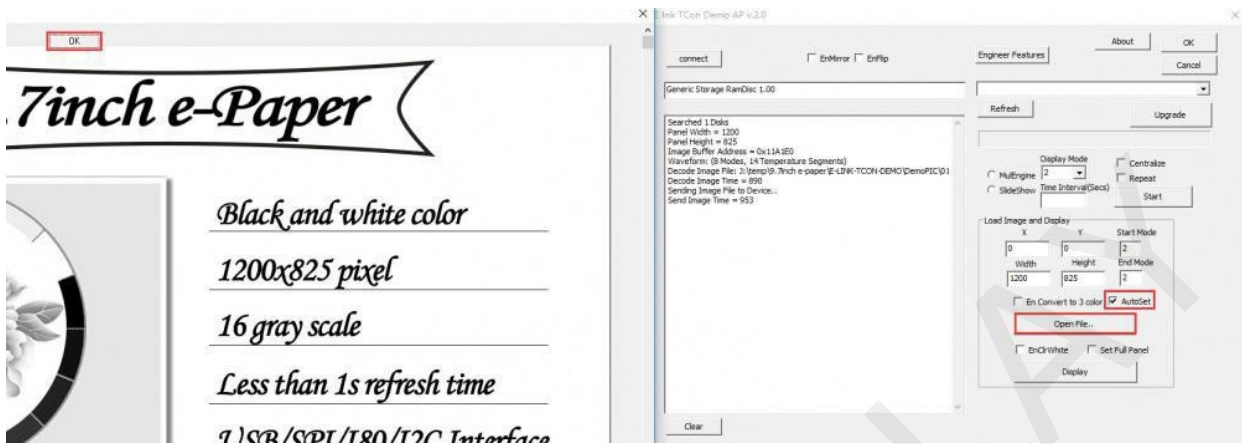
2) Open the test software of E-LINK-TCON-DEMO

3) Click 'connect' normal display as shown below:

4) Tick(√) the 'AutoSet' box, click 'Open File', select the related image and click to open it. Preview the selected image and click 'Open' as shown below:

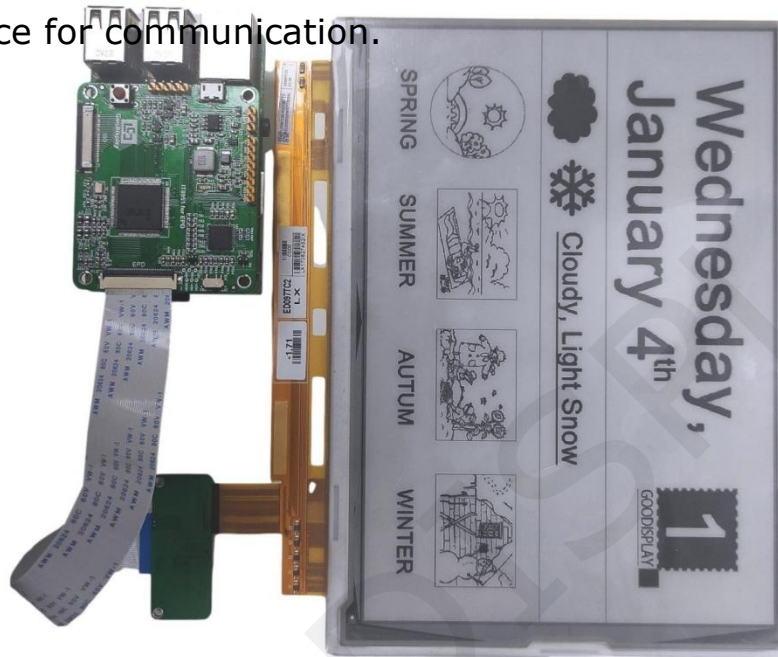
5) Click 'Display' and display the image.



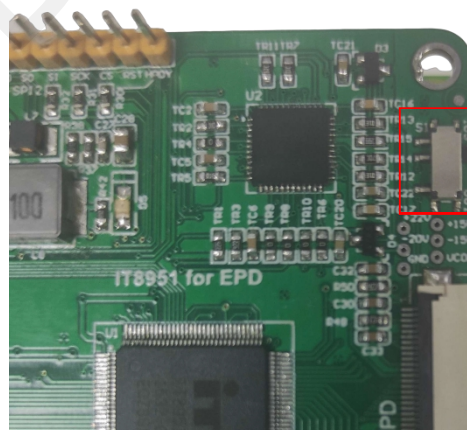


2. Raspberry Pi-controlled

1) Hardware connection shown as below: Connect IT8951 for EPD driver board directly to the GPIO interface of Raspberry Pi , using SPI interface for communication.



2) Make sure the dialing switch is selected to SPI mode.



SPI/I80 Mode Switch

3) Install the bcm2835 C function library , here we provide with the install pack (click to download), users can also visit the website: : <http://www.airspayce.com/mikem/bcm2835/> for the latest version.

Copy the install pack to the system of Raspberry Pi and execute the following code:

- ① `tar zxvf bcm2835-1.xx.tar.gz`
- ② `cd bcm2835-1.xx`
- ③ `./configure`
- ④ `make`
- ⑤ `sudo make check`
- ⑥ `sudo make`

install Installation
complete

4) Test the DEMO program to refresh the image with the following code:

- ① `tar zxvf IT8951.tar.gz (ucompress)`
- ② `cd IT8951`
- ③ `make clean`
- ④ `make`
- ⑤ `sudo ./IT8951`

This program supports commonly-used BMP formats to display. If coming across a failure for using some uncommonly used BMP format, just open the image through Windows drawing tool and save as another image in a commonly used BMP format so that the problem can be solved.

5. Emulator

It needs no emulator because it is a display driver board.