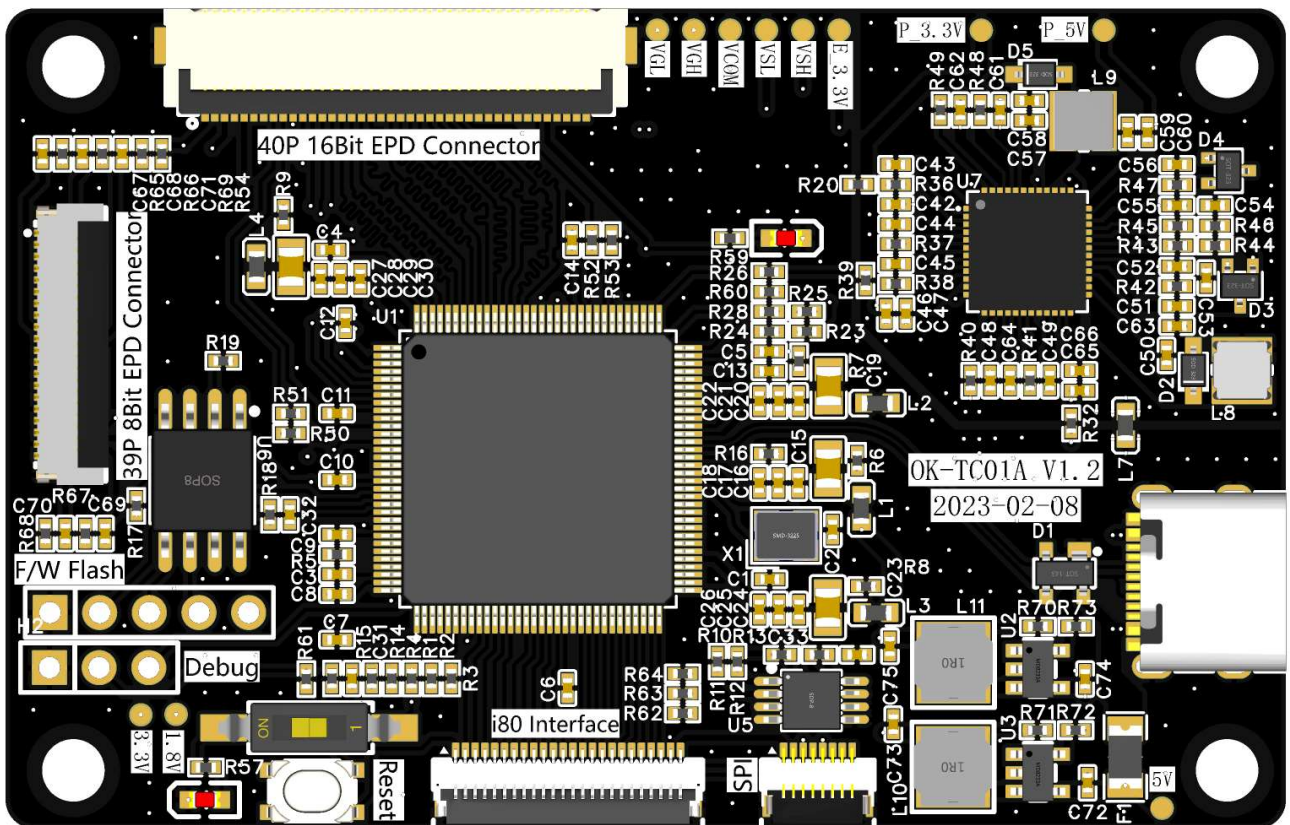


OK-TC01A User Manual

Foreword

- OK-TC01A is a TCon[Timing Controller] board developed by [Shanghai OKRA Technologies CO.,LTD.] (<https://www.okratechnologies.com/cn/>) specially for small and medium-sized TTL interface E-paper displays.
- OK-TC01A provides 8bit 39P interface and 16bit 40P interface, which can directly drive ED133UT3, ED078KC2, ED103TC2 and other EPDs. It can also drive EPDs of more sizes through an external adapter cable or adapter board.
- OK-TC01A provides USB/I80/SPI interface for connecting to host computer (PC or Linux platform or microcontroller)

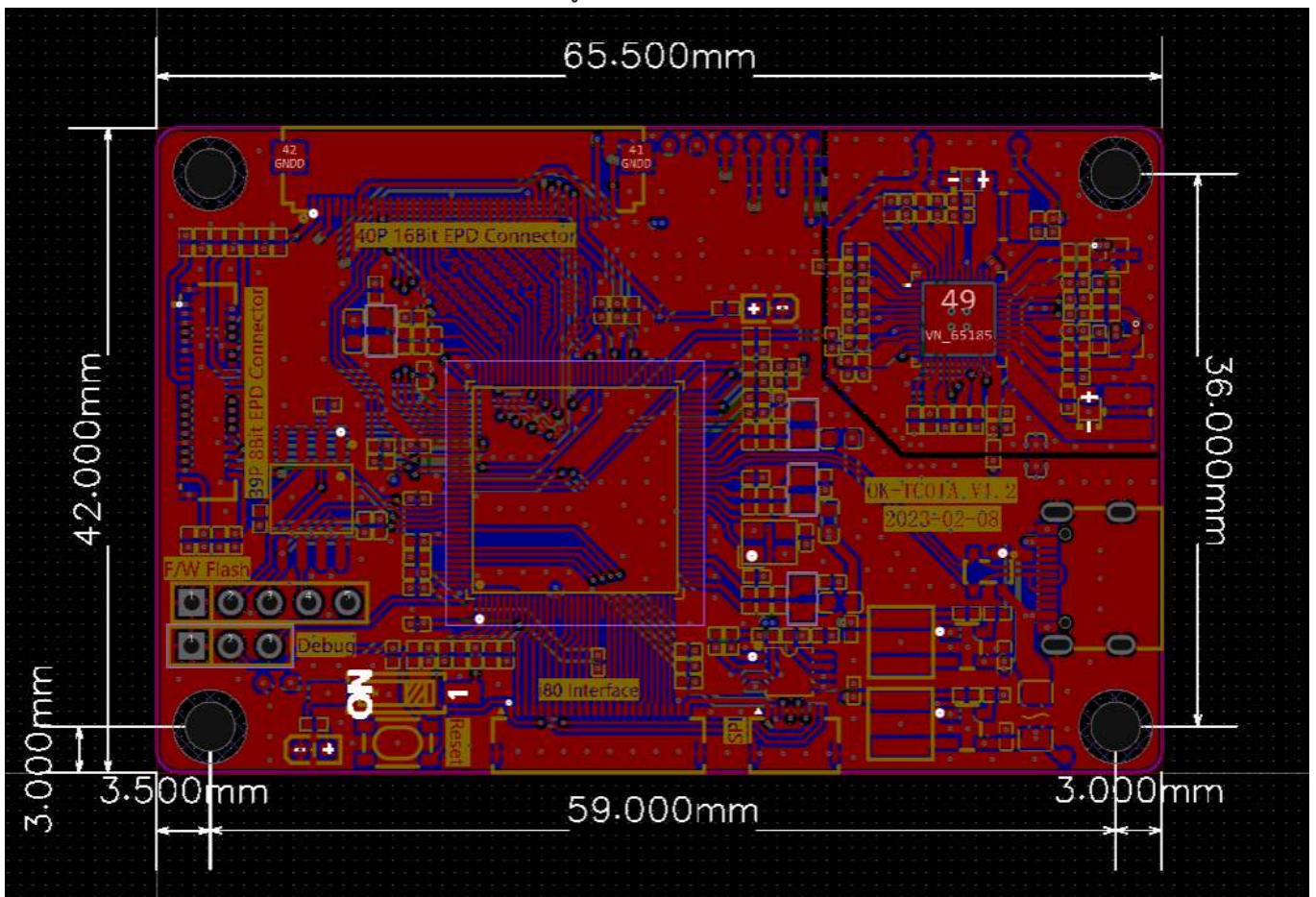


Product Features

- Working voltage: 5V
- Communication interface: USB, i80(24P), SPI(8P)
- Display color: black and white (16 gray scales), and can also support Kaleido color screen.
- Full refresh time: 480ms (depends on Waveform)
- Partial refresh time: 120ms (depending on Waveform)
- EPDInterface and supported models:
 - 39P(8bit): ED133UT3
 - 40P(16bit): ED078KC2、ED103TC2
- More EPD models can be supported with adapter boards.

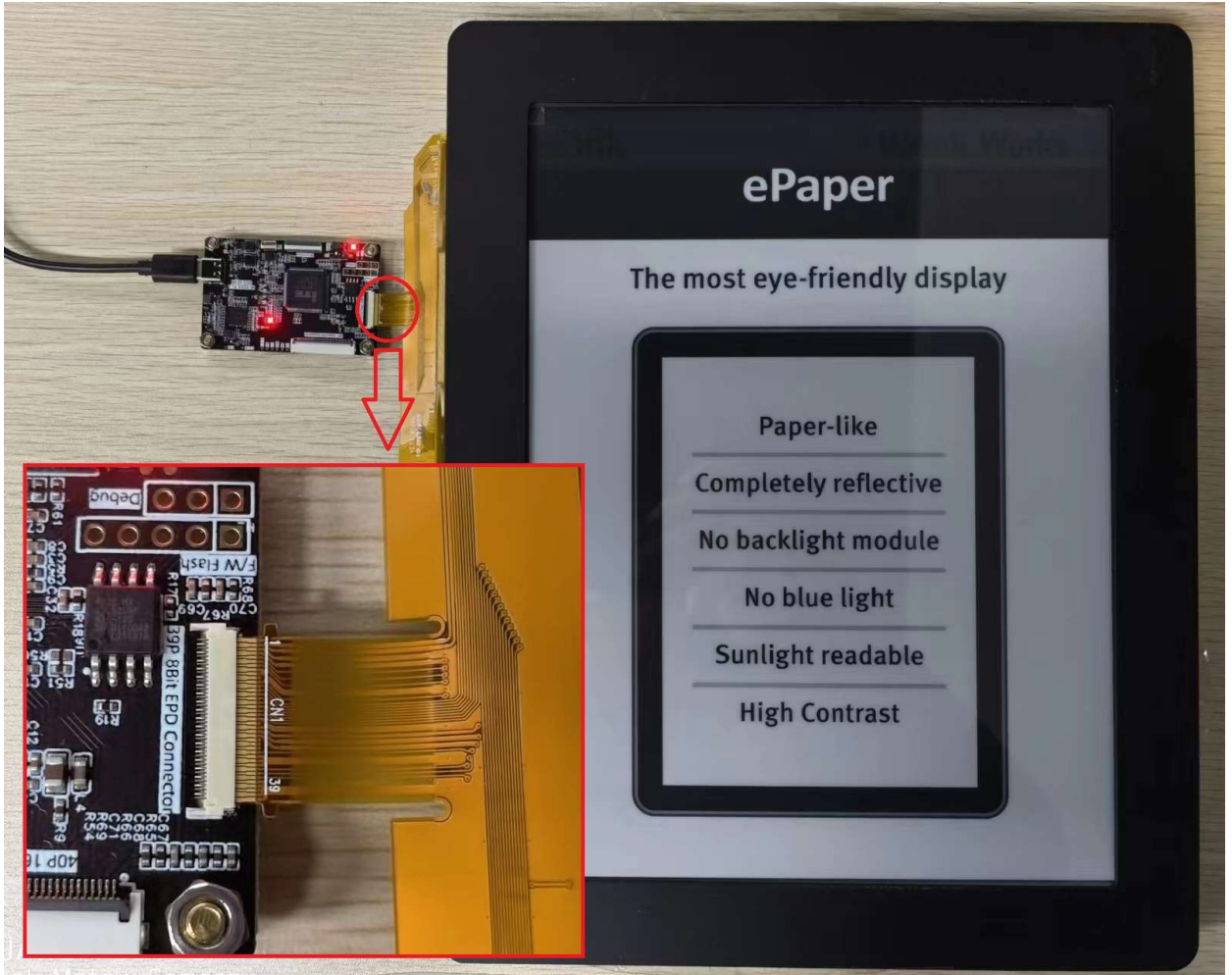
Product Dimension



OK-TC01A Outline dimension is 42x65.5mm.



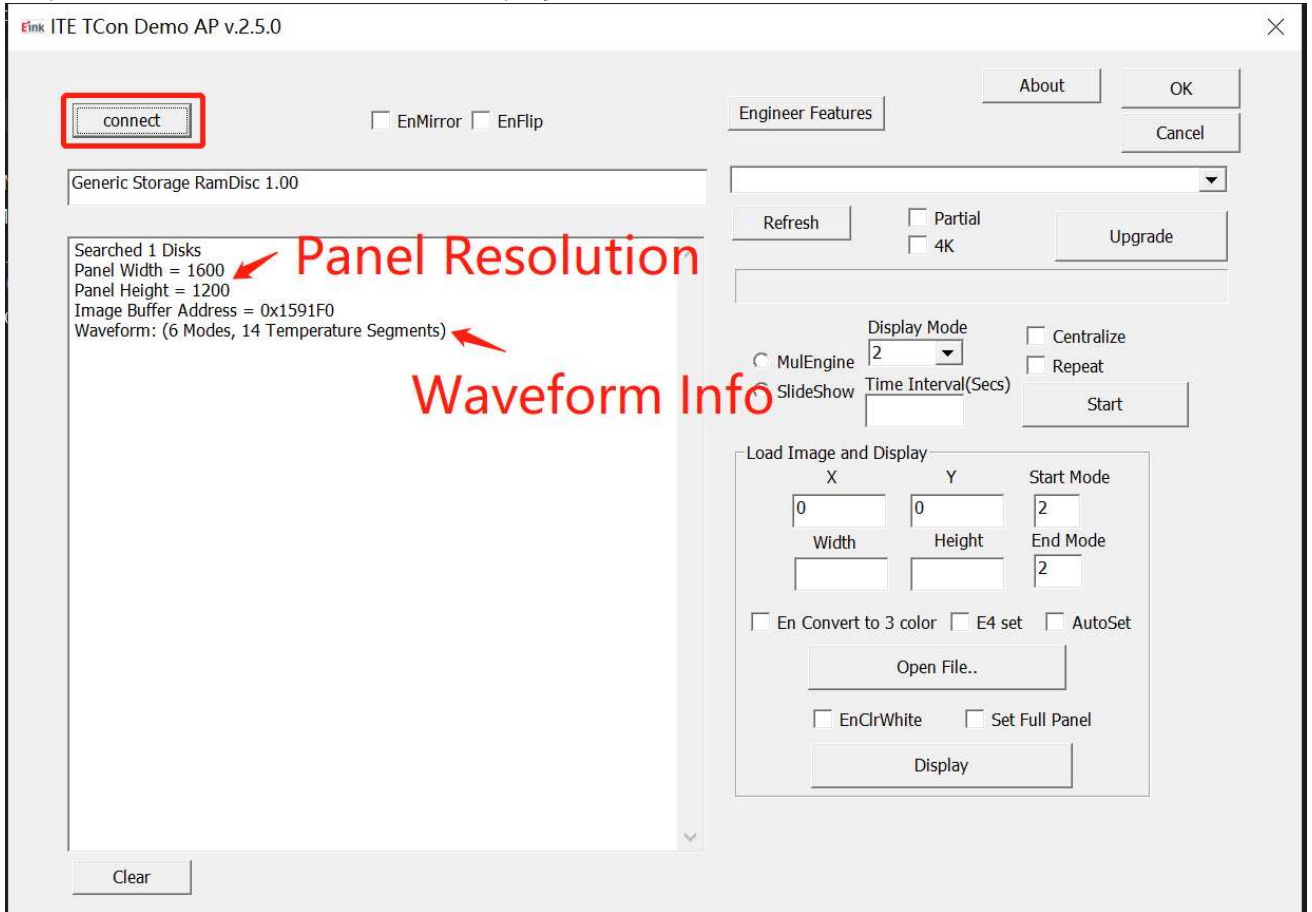
PC usage steps

- Step 1. Follow the diagram below to connect the screen and OK-TC01A Tcon board.
 - ED133UT3 connection method:

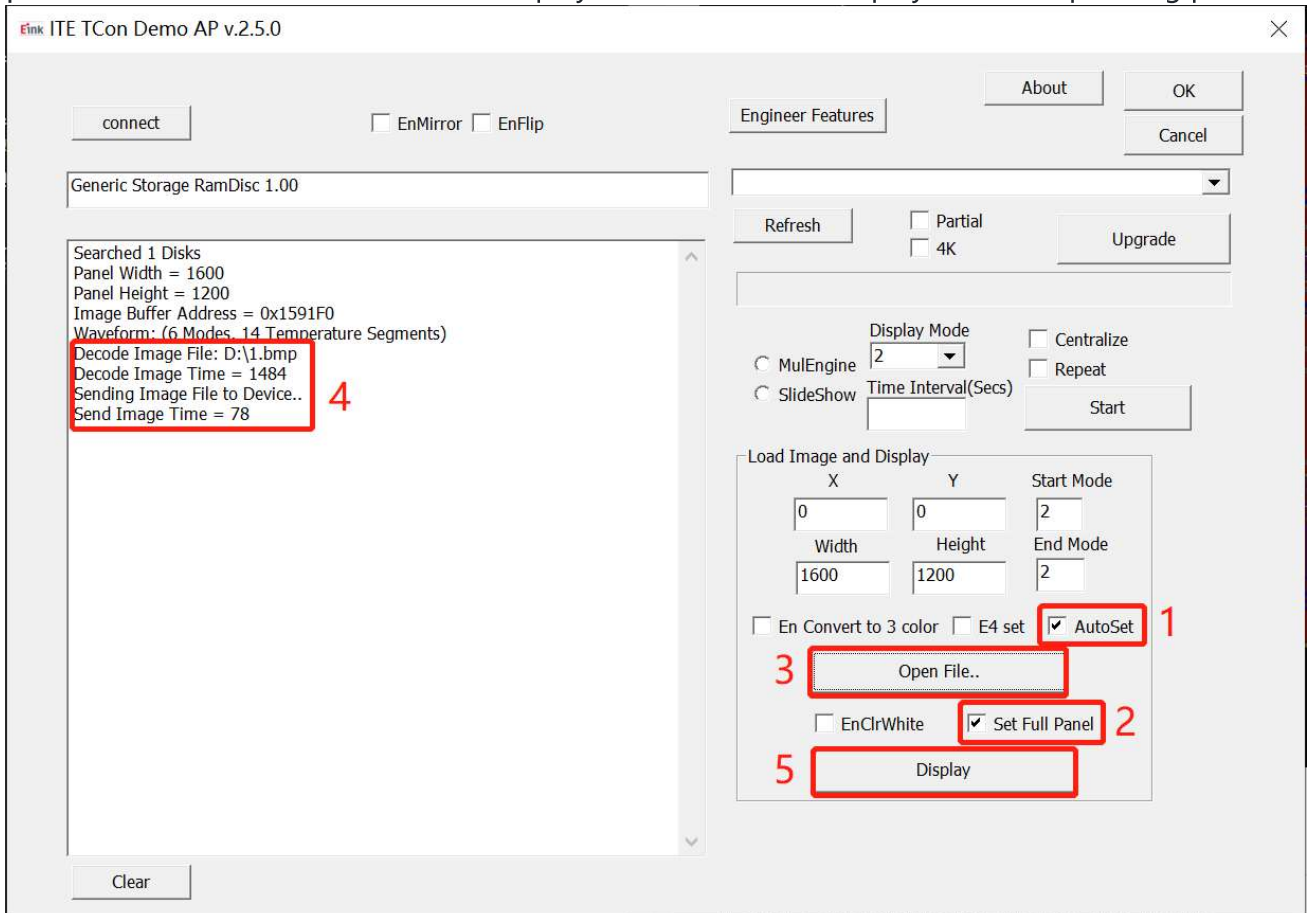


- ED078KC2 connection method:
 ED078KC2 connection method
- ED103TC2 connection method:
 ED103TC2 connection method
- Step 2. Connect the USB interface of the TCon board to the USB port of the PC. **(If an unformatted disk pops up, click Cancel)**
- Step 3. Open [DemoAP test program](#).

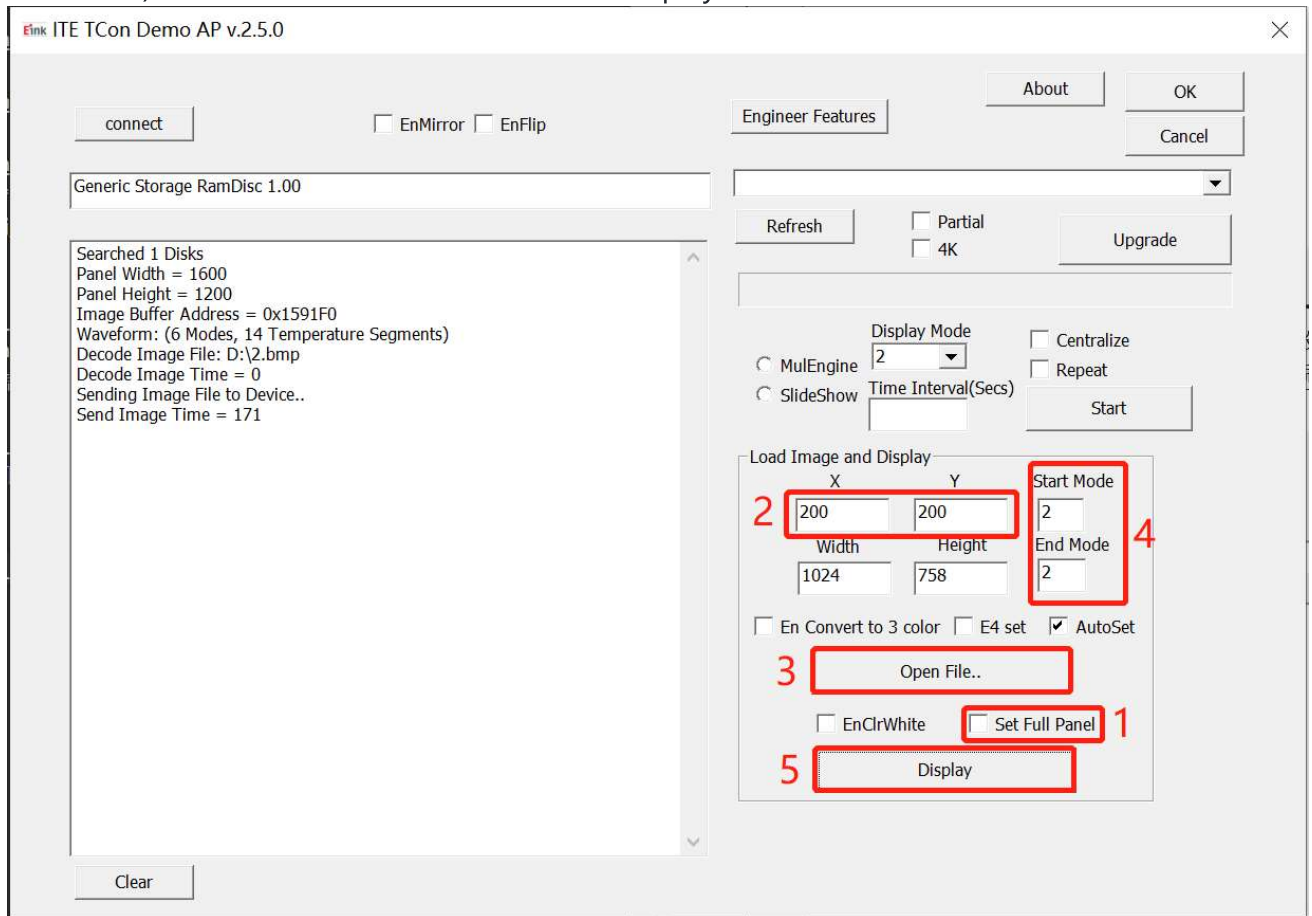
- Step 4. Click Connect. The normal display is as shown below.



- Step 5. Check AutoSet, Set Full Panel, click Open File to select the picture corresponding to the EPD resolution. The Log window will output corresponding information, indicating that the picture has been sent to TCon. Click Display, and the EPD can display the corresponding picture.

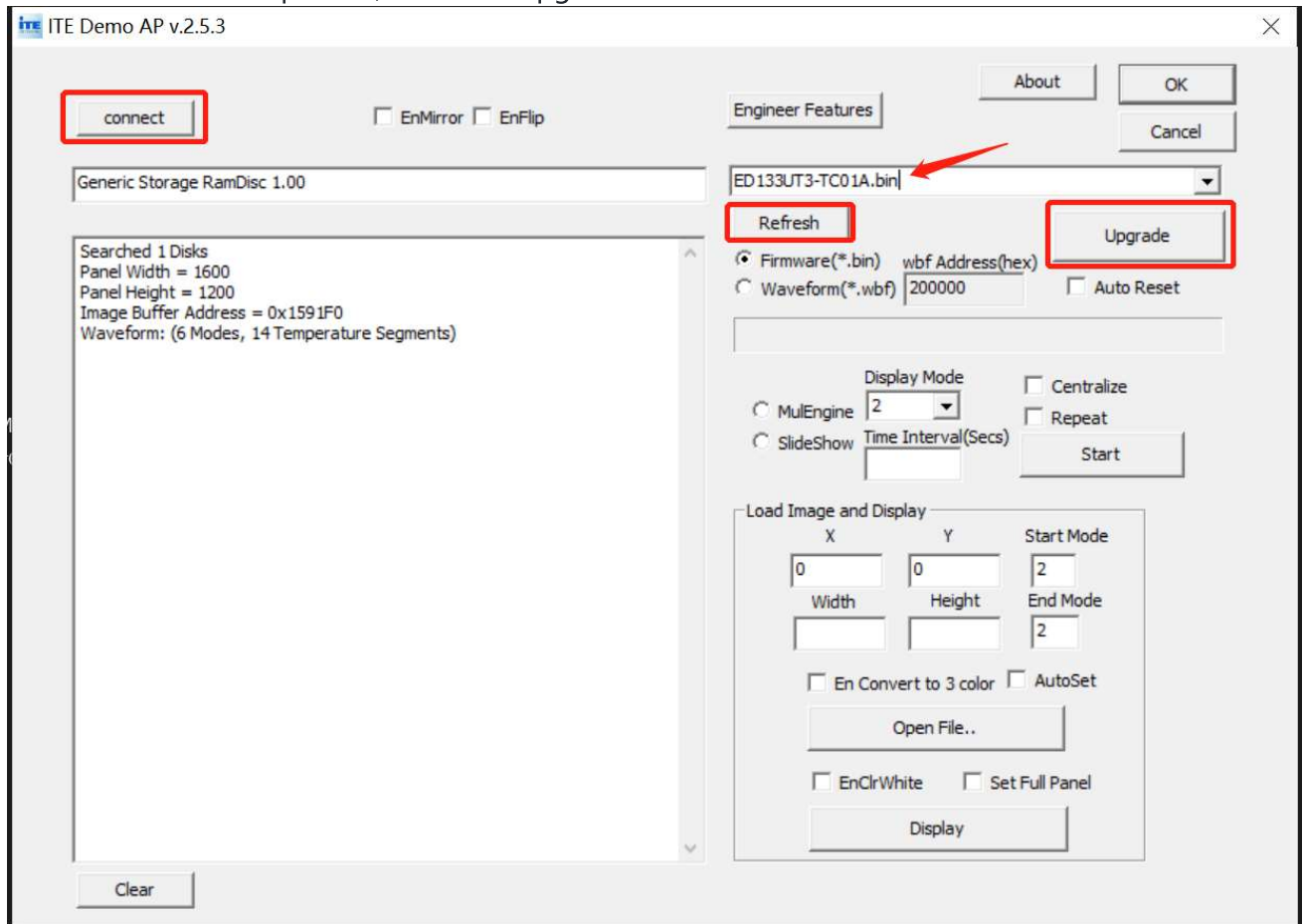


- Step 6. **Partial refresh Method:** Uncheck Set Full Panel. Set the display position of the partial refresh picture as shown in the figure below. Click Open File to select the picture to be scanned (pay attention to the resolution and display coordinates of the picture, do not exceed the screen resolution). Select the refresh mode and click Display to refresh.

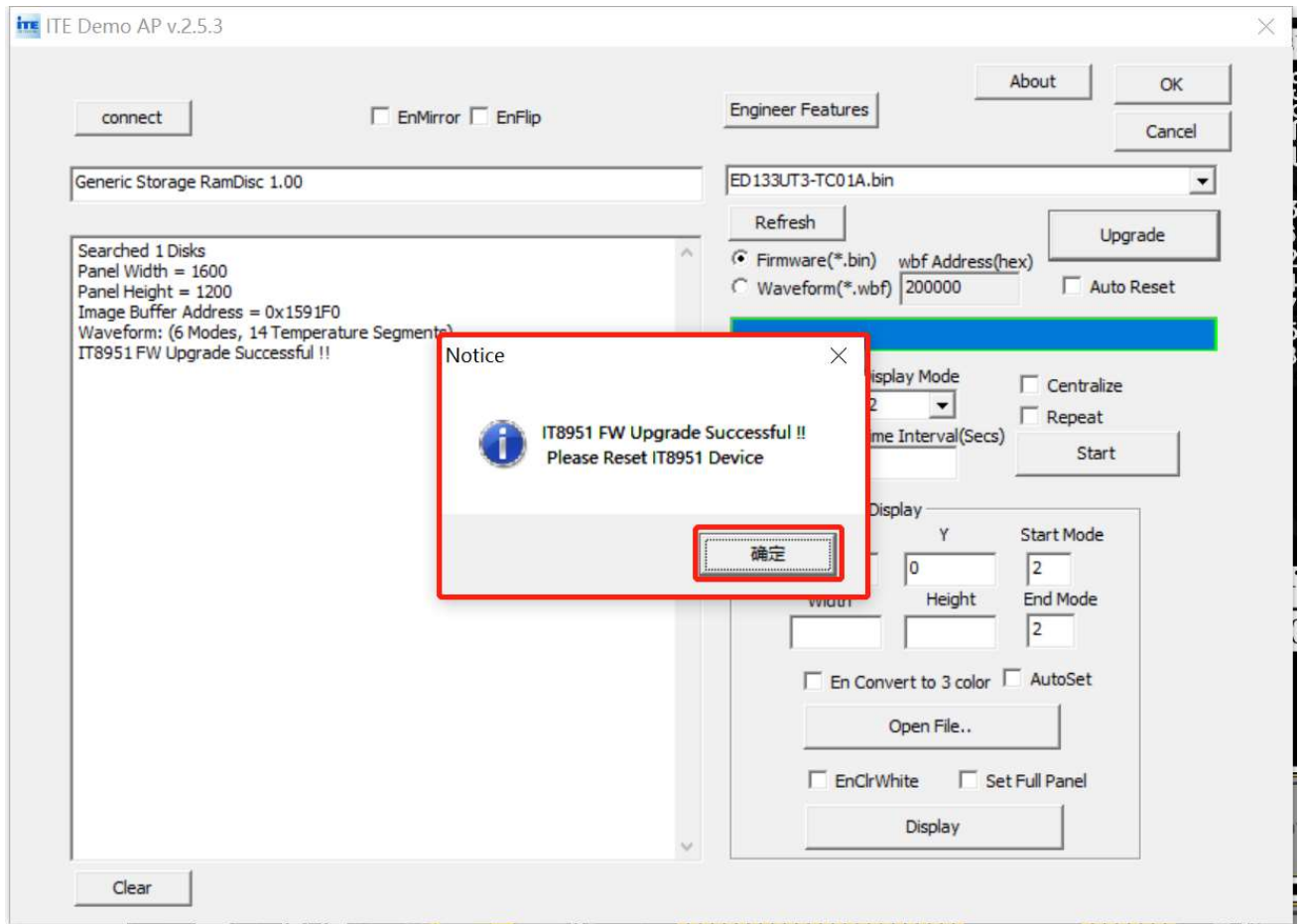


PC terminal update OK-TC01A firmware steps

- Step 1. Copy the firmware to be updated to the same directory as DemoAP. (**Please contact OKRA for firmware**)
- Step 2. Connect the USB port of OK-TC01A to the computer, without EPD is also okay.
- Step 3. Click Connect, click Refresh, you can see the firmware file in the drop-down menu, select the firmware to be updated, and click Upgrade.



- Step 4. When the upgrade is complete, a prompt will pop up. After clicking OK, press the reset button of TC01A to complete the upgrade.



i80 interface instruction

To be added

SPI interface instruction

To be added