

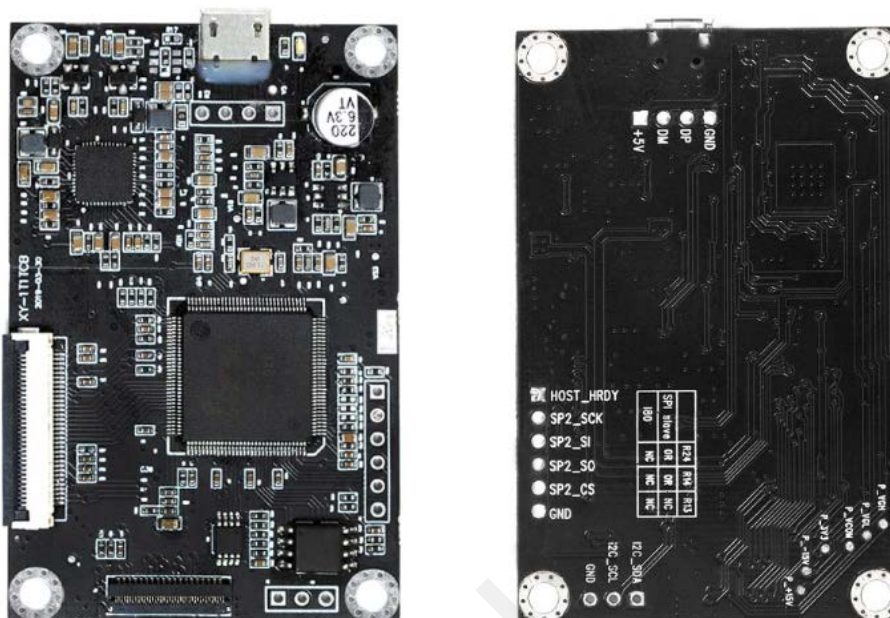


Development Board
for 9.7 inch E-paper

DEXA-C097

Dalian Good Display Co., Ltd.

Product Specifications



Customer	Standard
Description	Drive Board for 9.7" E-paper
Model Name	DEXA-C097
Date	2022/03/03
Revision	1.0

	Design Engineering		
	Approval	Check	Design
			

Zhongnan Building, No.18, Zhonghua West ST,Ganjingzi DST,Dalian,CHINA

Tel: +86-411-84619565

Email: info@good-display.com

Website: www.good-display.com

Version	Date	Edit	Check	Remark
V1.0	2022/03/03			

GOOD DISPLAY

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1. Overview

DEXA-C097 is the special driver board for GDEP097TC2. It can directly drive the display through special software.

Model	Working Temp.	E-paper Display Model	Color
DEXA-C097	-20℃ ~ 70℃	GDEP097TC2	Monochrome 16 Grayscale

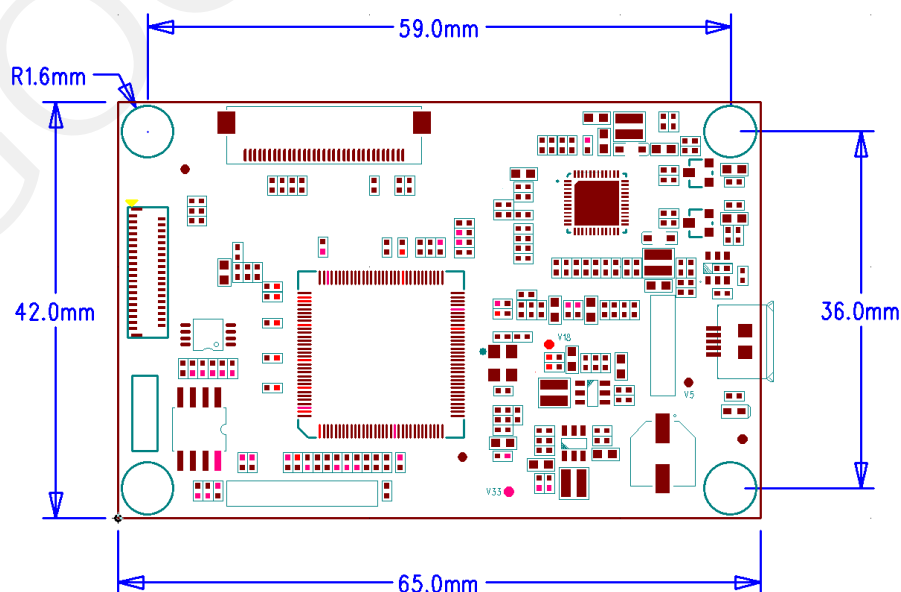
2. Function

DEXA-C097 can support to drive GDEP097TC2, providing e ink screen driving solution for client's e ink screen equipment, reducing customers' development workload on screen driver so as to complete the product scheme more quickly and efficiently.

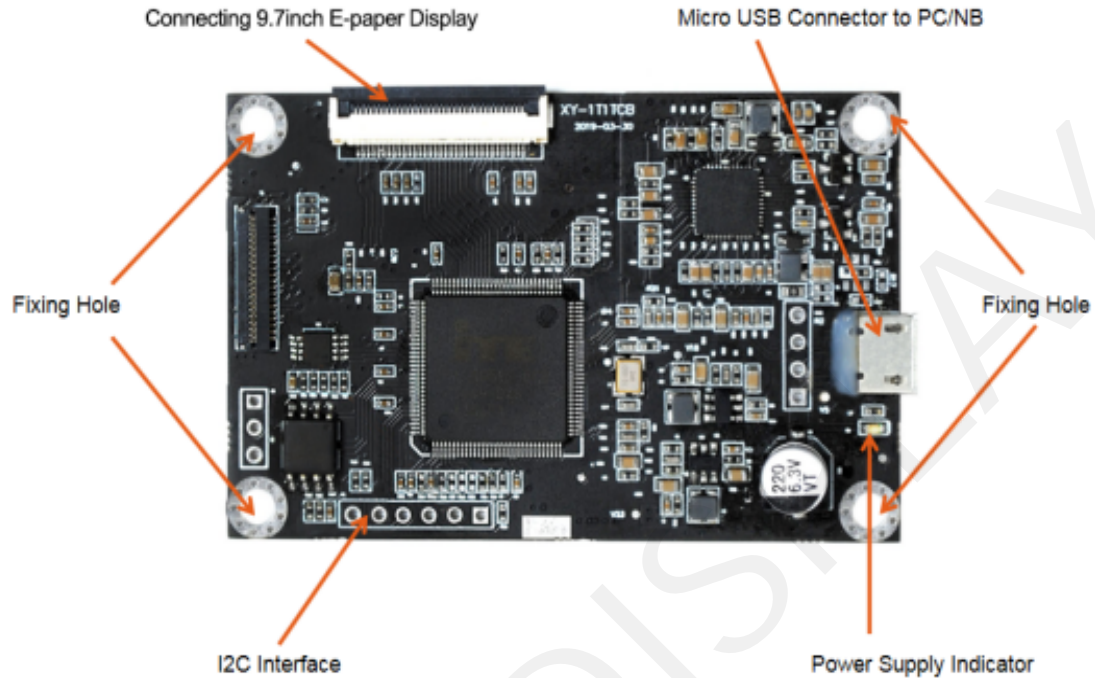
3. Structure Specification

Function	Driving E-paper Display
Input Interface	1. Micro USB interface 2. I2C interface
Output Interface	EPD Interface, Press-down Connection (connector 1)
Indicator	Power Supply Indicator
Outline Dimension	65*42*7 mm
Fixing	Screw Hole*4

Outline Dimension:



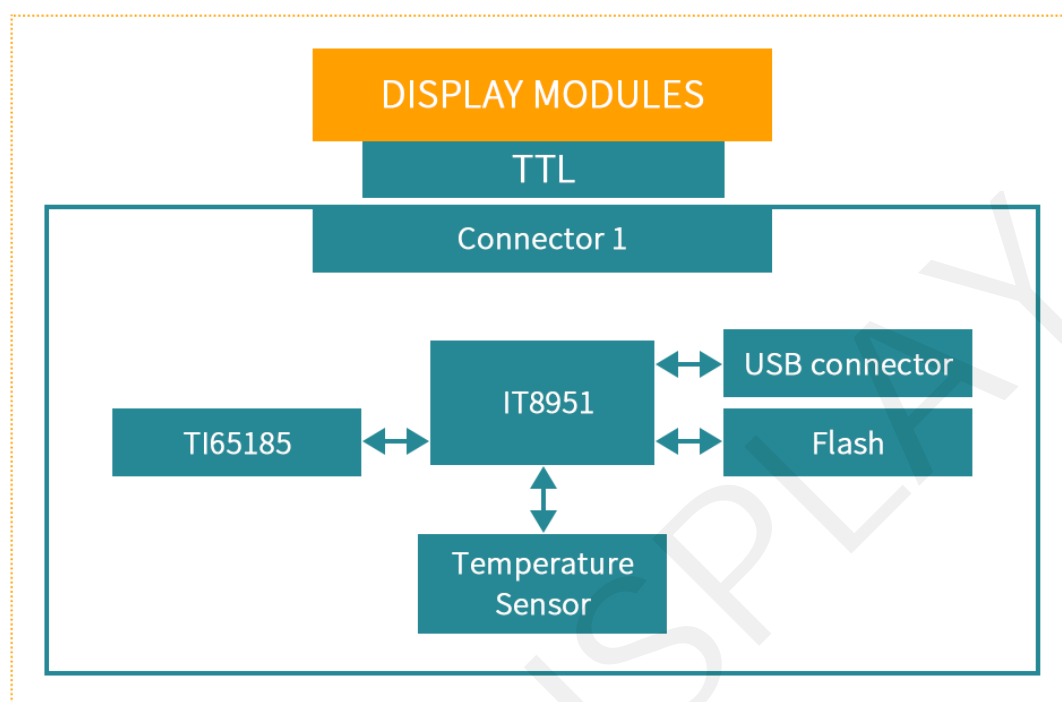
4. Appearance



5. Hardware Specification

Function	Driving E-paper Display
Input Power Supply	DC5V
Working Current	● 35mA (Stand-by)
Max Grayscale	16 Grayscale
Size of EPD Supported	9.7" EPD
Working Temp.	-20℃ ~ 70℃

6. Architecture Diagram



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7. Pin Definition:

Pin	Signal	Description	Remark
1	VNEG	Negative power supply source driver	
2	NC	NO Connection	
3	VPOS	Positive power supply source driver	
4	NC	NO Connection	
5	VSS	Ground	
6	NC	NO Connection	
7	VDD	Digital power supply drivers	
8	XCL	Clock source driver	
9	XLE	Latch enable source driver	
10	XOE	Output enable source driver	
11	VDD	Digital power supply drivers	
12	XSTL	Start pulse source driver	
13	D0	Data signal source driver	
14	D1	Data signal source driver	
15	D2	Data signal source driver	
16	D3	Data signal source driver	
17	D4	Data signal source driver	
18	D5	Data signal source driver	
19	D6	Data signal source driver	
20	D7	Data signal source driver	
21	NC	No Connection	
22	VCOM	Common connection	
23	NC	No Connection	
24	VGH	Positive power supply gate driver	
25	NC	No Connection	
26	VGL	Negative power supply gate driver	
27	NC	No Connection	
28	MODE1	Output mode selection gate driver	
29	MODE1	Output mode selection gate driver	
30	VDD	Digital power supply drivers	
31	SPV	Start pulse gate driver	
32	CKV	Clock gate driver	
33	Border	Border connection	

8. Software Specification

DEXA-C097 can be connected to PC or motherboard to run software for driving screen.

9. Power Supply State

Input power supply is DC5V via USB interface.

10. Indicator State

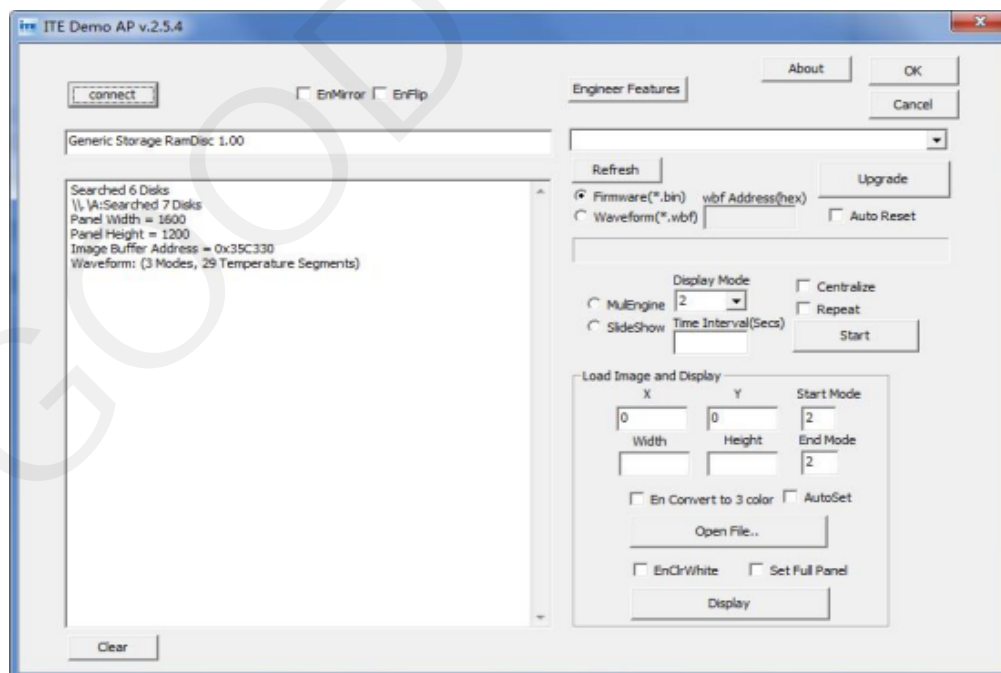
When the indicator light is on, the power supply is normal.

11. V-COM Voltage Adjustment

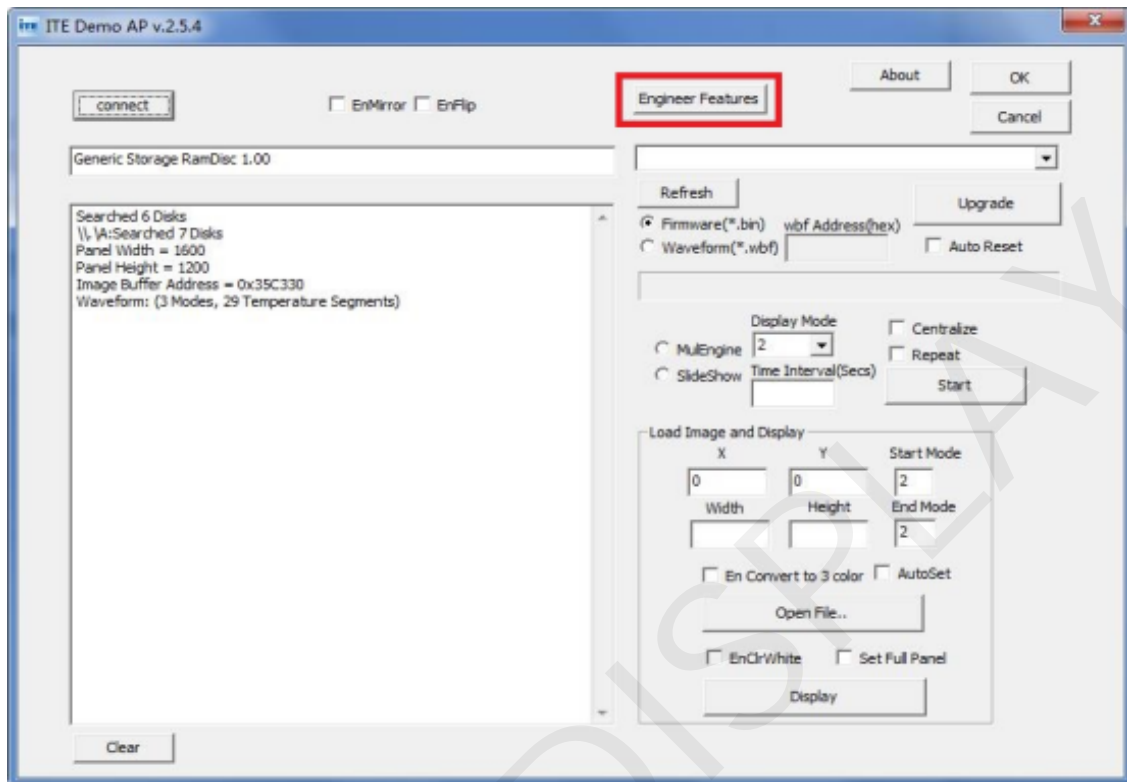
When 1T1TCB leaves the factory, the default V-COM voltage is -2.

50V. Users can adjust the V-COM voltage through our software. You may refer to following steps:

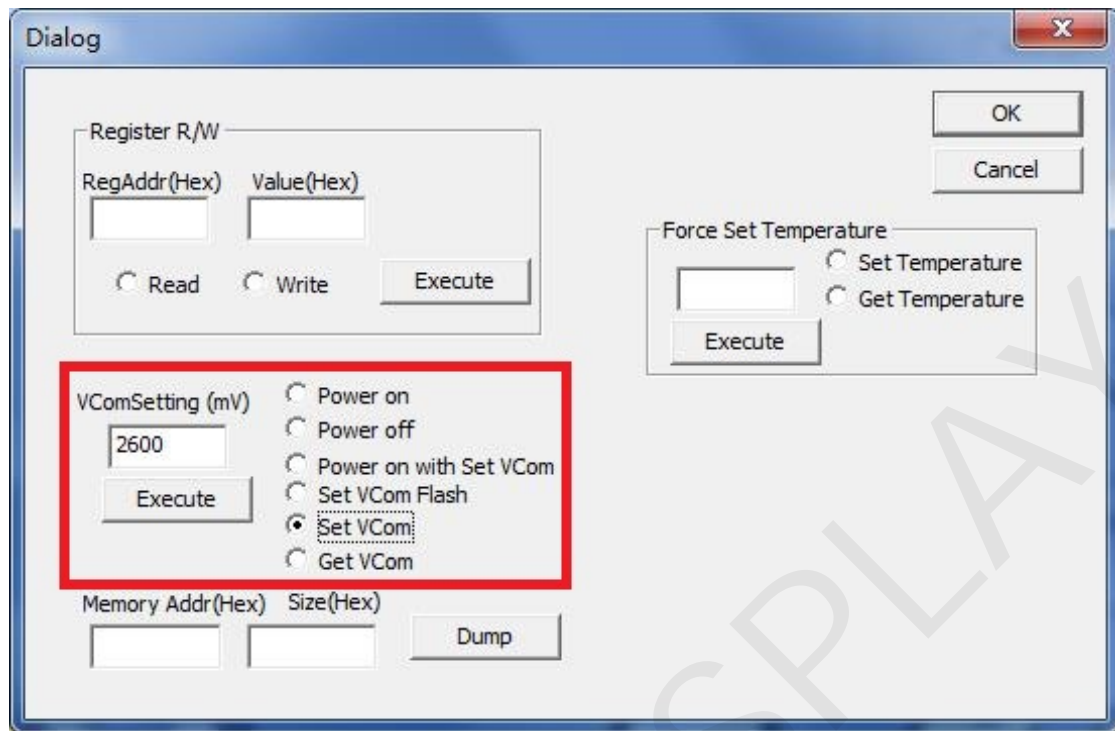
- 1) Connect the USB interface of the driver board to the USB interface of the PC
- 2) Open software " ITE_TCon_DemoAP_v.2.5.4
- 3) Click ' connect' , as shown below:



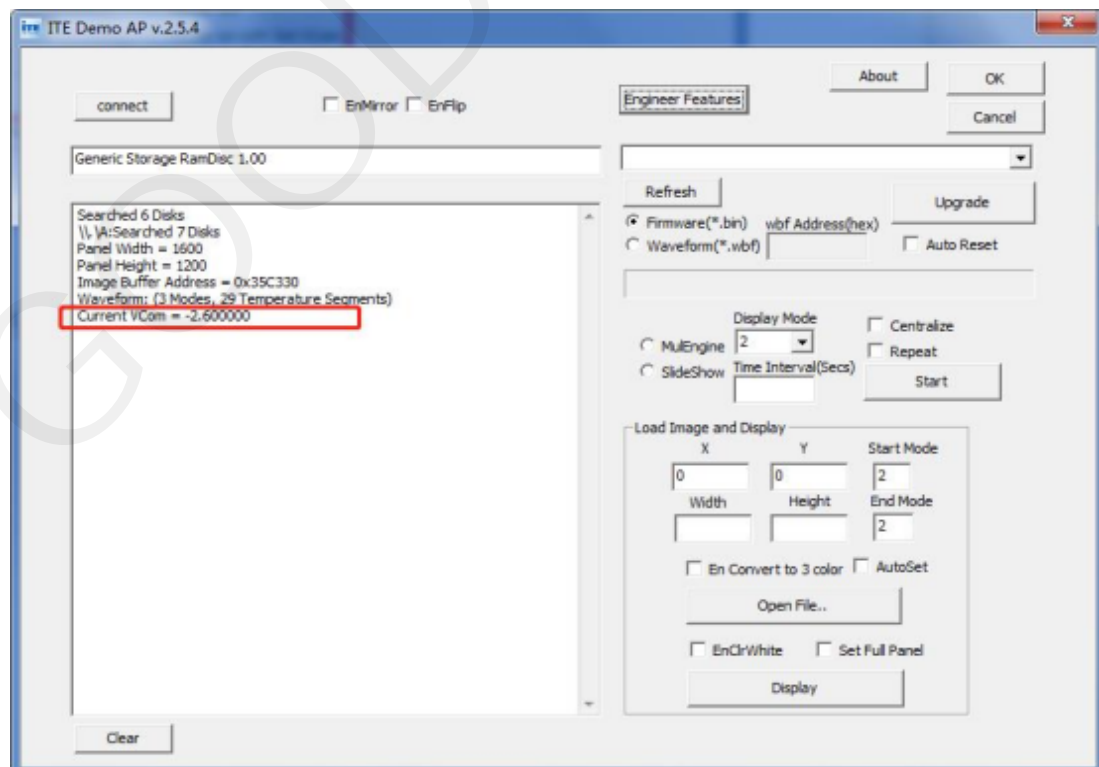
4) Click “ Engineer Features ” as shown below :



5) Enter the V-com voltage value to be set in the "VComSetting (mV)" input box (Note: The input value should be negative and the unit be mV). For example, if you want to set the V-com value to be -2.6v, please enter 2600 in the box. When value setting is complete, select ' set VCOM' (cannot be saved when powered off) or ' set VCom Flash' (can be saved when powered off), and then click "Execute" to complete setting, as shown in the following figure:



6) After voltage value of V-com setting is done, software interface will display the current voltage value of V-com, which means that setting is complete, as shown in the figure:



12. Voltage Testing Points

There are 8 voltage test points on the back of the motherboard, from top to bottom: P_ VGH, P_ VGL, P_ VCOM, P_ 3V3, P_- 15V, P_+ 15V. To test the voltage of the test point, please contact the negative probe of the multi-meter or other voltage test instruments with the GND test point and the positive probe with the test point to be tested, and read the voltage parameters.



Voltage Testing Point

13. Remarks