JAZZ-RGB-D20 Tester User Manual

*Picture-1: Picture of JAZZ-RGB-D20

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1. General Description

This demo board (JAZZ-RGB-D20)is used to test Orient Display standard product 3.5"/4.3"/5.0" IPS TFT series.

Testable part numbers are shown in below Table-1.

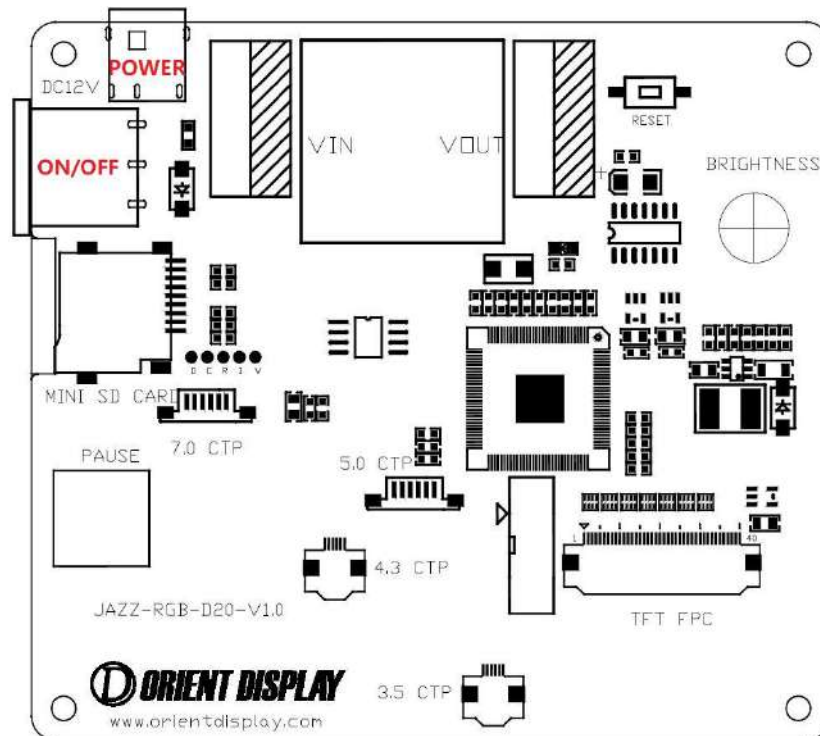| Size	TFT	TFT with RTP	TFT with CTP
3.5"	AFY320240A0-3.5INTH	AFY320240A0-3.5INTH-R	AFY320240A0-3.5INTH-C
4.3"	AFY480272A0-4.3INTH	AFY480272A0-4.3INTH-R	AFY480272A0-4.3INTH-C
5.0"	AFY800480A0-5.0INTH	AFY800480A0-5.0INTH-R	AFY800480A0-5.0INTH-C

Table-1

2. Product Description

This tester is a comprehensive product used to test Orient Display standard IPS TFT with RGB interface. Customer can test different sizes and mode by changing the files in SD card installed in this tester.

Dimension: 100*90*15mm common voltage ripple < 20mV. Please put tester and TFT module at a flat surface.

Please refer to below Graphic-1 for connection figure.

Graphic-1

- POWER: the DC12/1A power adaptor is offered with the tester, and support AC110V ~240V power supply.

- ON/OFF power switch: power on and power off controller.

- PAUSE: when the pressure PAUSE button, the scrolling pictures will be paused.

- RESET: to reset the system of tester.

- BRIGHTNESS: adjust the brightness of the display

  Kindly note that when power on, the display is at the highest brightness setting by default. At this time the backlight brightness is not limited by the position of the backlight potentiometer.

  To adjust the backlight brightness, turn the potentiometer counter clockwise all the way. Then adjust the brightness by turning it clockwise slowly, the brightness will gradually decrease as you turn the potentiometer.

  When the backlight is at the lowest brightness, please turn the potentiometer counter clockwise to increase brightness.

- MINI SD CARD slot: software for each part number are saved in different folders in SD card. Use the software corresponding to the display part number to test.
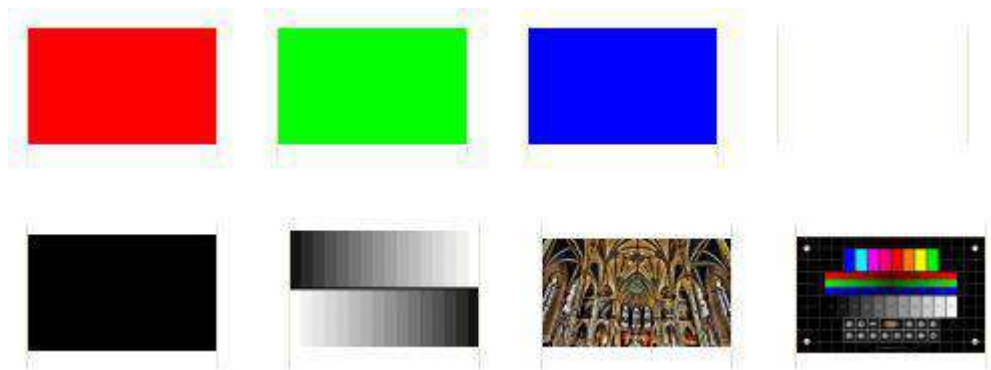
3. **Testing Procedures**

   a) Preparations are as follows:

      o Copy software file related to the display part number to SD card. (For more detail please see Appendix A)

      o Connect the FPC of display in the tester board.

      o Plug the power adaptor.

   b) Power on the tester.

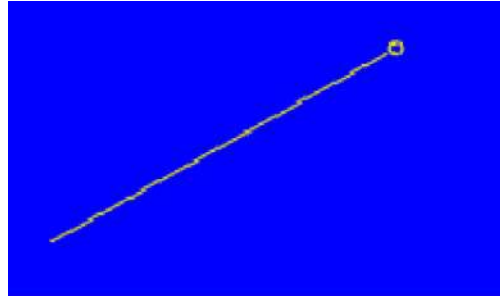   c) Below pictures as shown in Graphic-2 will start to auto display with one second interval.

d) Resistive Touch Panel testing

- o Press PAUSE button anytime to pause auto display, and start the touch panel test mode.

- o When user touches the screen, there will appear a small yellow circle at the touched position. (Please refer to Graphic-3).

- o If user moves finger on the resistive touch screen, the display screen will show a yellow line starting with the yellow circle. (Please refer to Graphic-4).
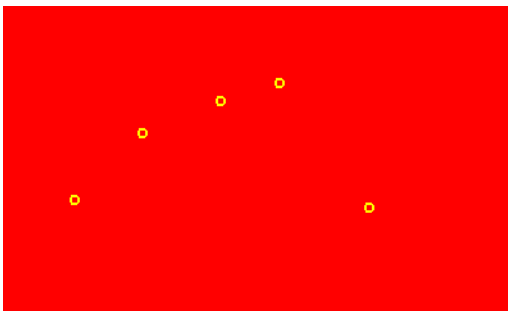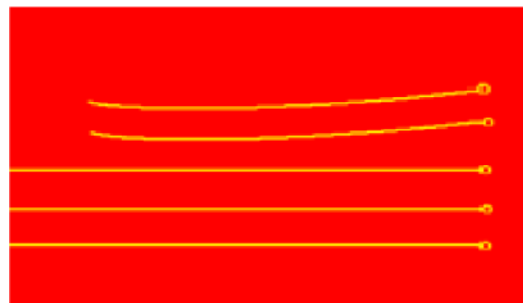

Graphic-3   Graphic-4

e) Capacitive Touch Panel testing

Support simultaneous touch within 5 points.

- o Press PAUSE button anytime to pause the auto-display, and start the touch panel test mode.

- o When user touches the screen by finger, a small yellow circle will appear at the touched position. If user touches 5-point on screen at the same time, there are 5 yellow circles will appear. Please refer to Graphic-5.

- o If user moves fingers on the capacitive touch screen, the display screen will show five yellow lines starting with the yellow circles. (Please refer to Graphic-6).

Graphic-5   Graphic-6

Support CTP features that can be tested simultaneously within 5 points

f) After testing

   Turn off the power, and unplug the adaptor.

4. To change the Demo Photos

a) Download the JAZZ-RGB-D20 Photo.zip file from the website.

b) Open the folder and you can get three files as below.

BMP_DATA   BMP_FILE   BmpToBinF
                        orDM.exe

c) Choose the picture that you want to displayed and copy to the BMP_GILE folder.

   - Image file type should be Bitmap (.bmp).

   - Resolution of the pictures should match the required resolution of the TFT that you want to display. If your pictures do not match the required resolution, other software maybe used to covert the photo to the correct resolution (e.g., Adobe Photoshop).

   - Rename the pictures in chronological order, starting with 000 (e.g., 000, 001, 002…). If the picture is not renamed accordingly, it will not be displayed.

d) Click and run BmpToBin.exe file. When the files are being processed, a black screen will pop-up. The bigger the file, the longer it takes. Two new files will be generated in BMP_DATA.

e) Open the folder BMP_DATA and select/copy the two files inside BIMDATA and TABLE.

f) Insert the Micro SDM card to the computer and open it, paste both BIMDATA and TABLE directly into replacement the tw0 existing bin files.

g) Return the Micro SDM card to the Demo Board.

h) Connect the TFT to the Demo Board and turn it on. If it doesn't work, just press the reset button.

Appendix A

In the SD Card provided along with the tester, there are 9 folders which each contains the software corresponds to specific part number. Please refer to Table-2.

Product Part Number	
AFY320240A0-3.5INTH	RGB-3.5-NT
AFY320240A0-3.5INTH-R	RGB-3.5-RT
AFY320240A0-3.5INTH-C	RGB-3.5-CT
AFY480272A0-4.3INTH	RGB-4.3-NT
AFY480272A0-4.3INTH-R	RGB-4.3-RT
AFY480272A0-4.3INTH-C	RGB-4.3-CT
AFY800480A0-5.0INTH	RGB-5.0-NT
AFY800480A0-5.0INTH-R	RGB-5.0-RT
AFY800480A0-5.0INTH-C	RGB-5.0-CT

Graphic-7 All folders in SD Card   Table-2

When testing the display, find the corresponding folder, open the folder, and copy & paste all files in the corresponding folder to the same file path with these 9 folders.

For example, to test AFY480272A0-4.3INTH-R, copy BMPDATA.BIN, boot.bin, CONFIG, and TABLE.BIN in the folder name RGB-4.3-RT to SD Card as below Graphic-8.