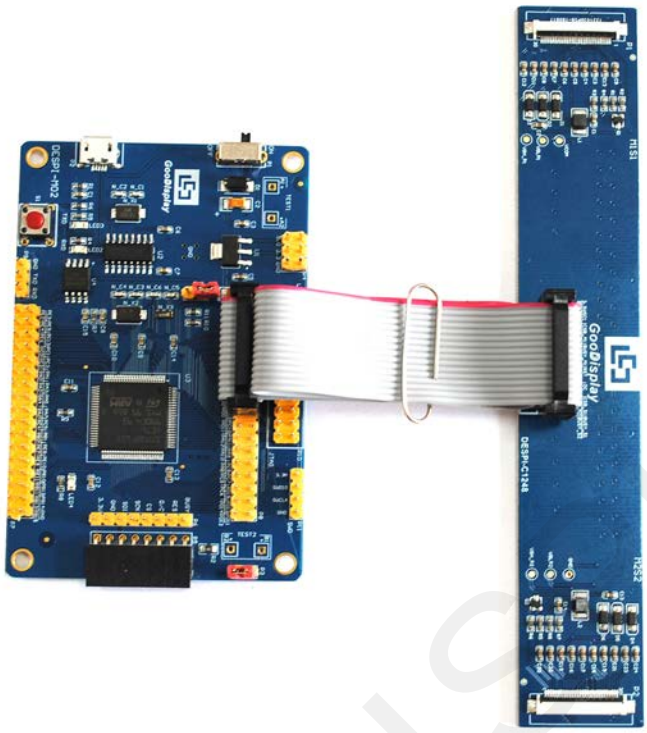
Development Kit for Epaper Display

GooDisplay®

DESPI-1248

Dalian Good Display Co., Ltd.

Product Specifications



Customer	**Standard**
Description	**Development Kit for Epaper Display**
Model Name	**DESPI-1248**
Date	**2018/09/28**
Revision	**1.0**

	Design Engineering		
	Approval	**Check**	**Design**
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Content

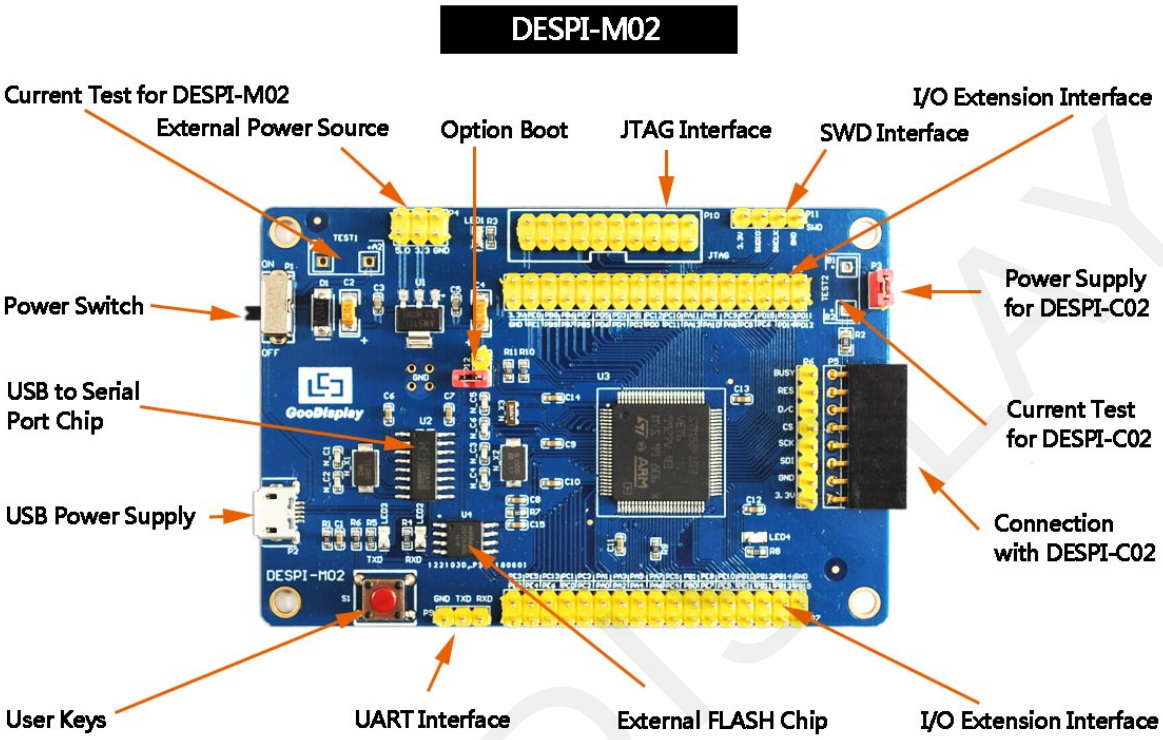
1.Overview

This Development Kit designed for SPI E-paper Display aims to help users to begin constructing our e-paper display with provided source code to create more differentiated solutions. It supports driving Good Display's 12.48 inch black-white E-paper Display and three-color (black, white and red) Good Display ‘s E-paper Display.
And it is added the functions of USB serial port and LED indicator light ect. It also supports being updated by computer directly.
DESPI-1248 Development Kit consists of the development board DESPI-M02 and the pinboard DESPI-C1248.

2. Mechanical Specifications

Parameter	Specification
Model	DESPI-1248
MCU	STM32
Dimension	90mmx60mm (DESPI-M02) 150.2mmx26mm (DESPI-C1248)
Power Interface	USB Interface
Sample Code	Available (please contact sales)
Operating Temp.	-20°C ~+70°C
Main Function	EPD driving
Additional Function	USB to serial port, indicator light , keys , current detection and so on.

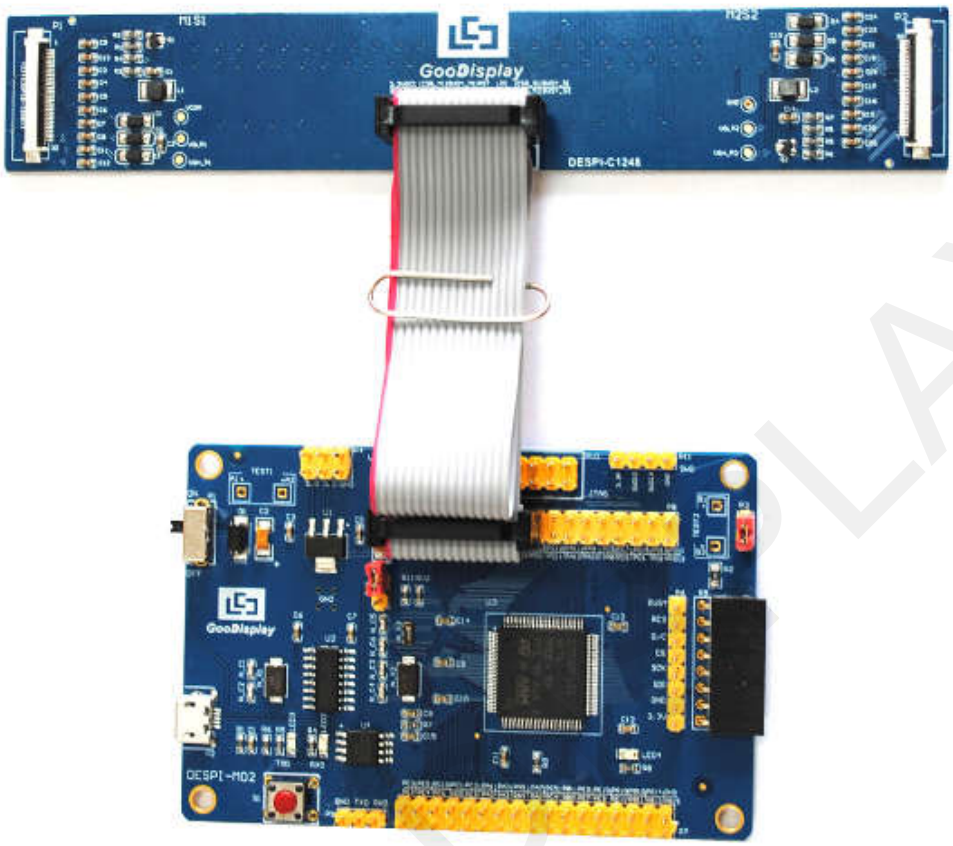
3. Functions



Pic.01 Main Board

Pic.02 Connector location of DESPI-M02(Pin Header P8)

Pic.03 Function of DESPI-C1248 (Left P1, Right P2)



Pic.04 DESPI-1248 Installation

3.1 Power Supply

Input voltage of Demo Board is DC5V, and the power interface is USB Interface.

3.2 LED indicator light

One indicator light reserved for developing.

3.3 Communication

One USB to serial port reserved for transmission .You should install the driver program CH340 to use it.

3.4 I/O Port Extension

I/O port of STM32 has been led out for developing.

3.5 Current Test

The demo kit supports the current test of the main board DESPI-M02 and the connector board DESPI-C1248.

1)Test for DESPI-M02: Power off and make series connection between ampere meter and TEST1.

2)Test for DESPI-C1248: Power on and take off the short circuit plug P3 then make series connection between ampere meter and

TEST2.After accomplishing test ,put on the short circuit plug 3.

3.6 Download

The demo can support 3 modes of download :

TAG、SWD、UART.

TIPS: When using UART to download program, you needs to use a plug to short circuit P12, and then use FlyMcu software to choose corresponding with Hex file and download it. Be sure to remove the short circuit plug for P12 after the download is complete, or program won't be able to work.

3.7 DESPI-C1248 description

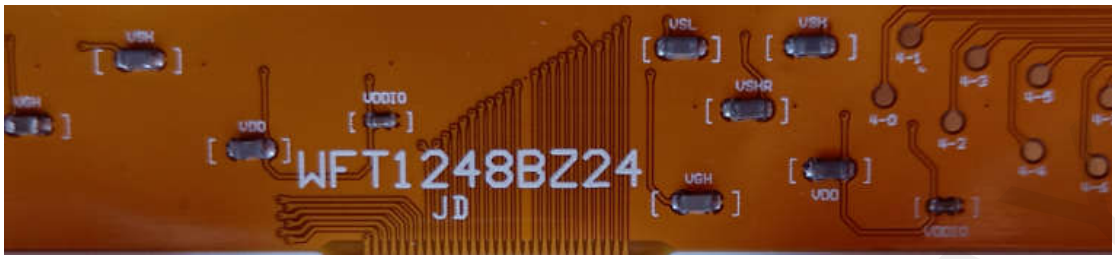
It contains the boost drive section of 12.48'' e-paper display, and it supports to test the voltage value such as VGH, VGL, VOM and so on. Users should also pay attention to these parameters when designing the driver board. The typical value of VGH is +20V, the typical value of VGL is -20V.

3.8 Connection Step

3.8.1 Connector P1 connected with the main FPC (WFT1248BZ23)of e-paper display.

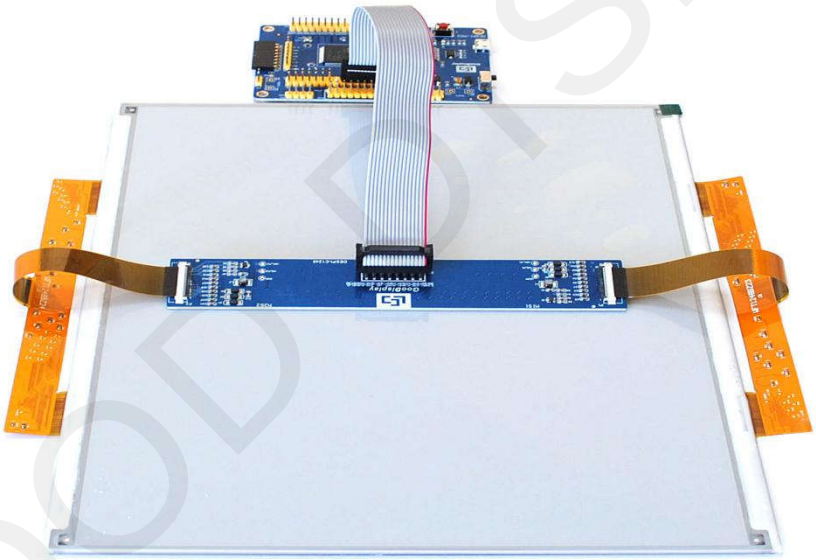
Pic.05

3.8.2 Connector P2 connected with the ancillary FPC(WFT1248BZ24) of e-paper display.



Pic.06

3.8.3 Connection as following:



Pic.07

Note: The main FPC(WFT1248BZ23) and the ancillary FPC(WFT1248BZ24) must not be connected in the opposite direction, otherwise the e-paper display cannot be refreshed.

3.9 Keys

Reserved button function for user developing.

4. JTAG Simulator (Optional)

There is no brand or model requirement when the user selects the emulator, as long as it has the download function.