SPECIFICATION

Product Type : E-Paper Display Development Kit

Model Number : DESTM32-S

Description : STM32 Platform
Drive E-paper display

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Issue Date : 2017.11.27

Good Display

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Revision History

Rev.	Issued Date	Revised Contents
1.0	Mar.18.2016	Preliminary
1.1	Jun.15.2016	Updating
1.2	Aug.18.2017	Updating
1.3	Nov.27.2017	Updating

Contents

1. Over view

This Development Kit which designed for SPI E-paper Display aims to help users to learn how to use E-paper Display more easily. It can refresh black-white E-paper Display and three-color (black, white and red) E-paper Display: 1.54″, 2.04″, 2.13″, 2.7″, 2.9″, 4.2″, 7.5″. And it is also added the functions of USB serial port, indicator light and keys.

You can refer to this development kit to build your system, and the kit is with the function of :

1) Built-in update display function.

2) The extra function can be added such as Flash controller/SRAM/multiple communication interfaces.

3) Two ways of power supply resolution: DC input and USB input.

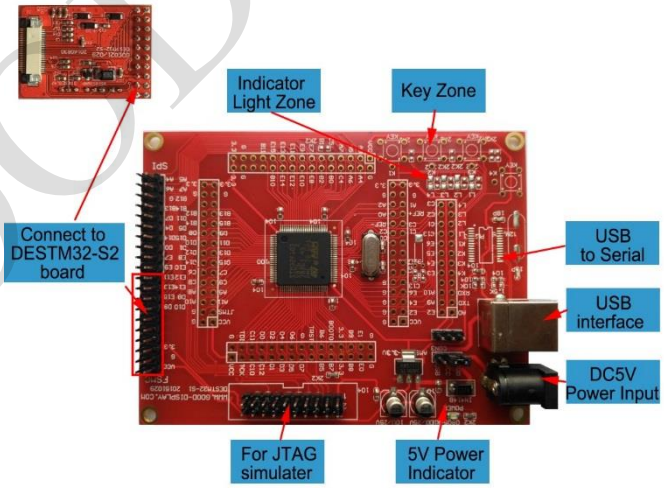
4) Provide reserved LED indicator lights and reserved keys.

DESTM32-S Develop Kit consists of the development board DESTM32-S1 and the pinboard DESTM32-S2

2. Mechanical Specifications

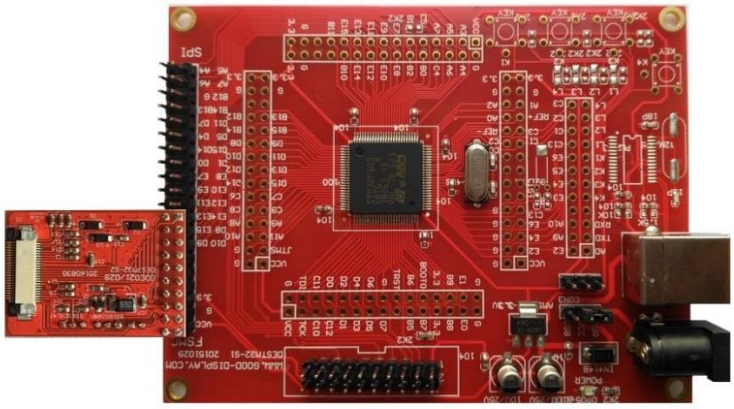
Parameter	Specification
Model.	DESTM32-S
MCU	STM32
Dimension	100x76x1.6mm (DESTM32-S1) 28mmx26mmx1.6mm (DESTM32-S2)
Input Voltage	5.0 V
Interface	USB
Sample Code	Available (please contact sales)
Working Temperature	-20 ℃ ~+70 ℃
Main Function	EPD driving & outer SRAM
Additional Function	Reserved Serial ports and keys, USB to serial port, SW simulator.

3. Functions



Pic. 01 Demo Board

DESTM32-S1 and DESTM32-S2 are connected:



Pic. 02 Demo Board

3.1 Power Supply

Power input: Input voltage of Demo Board is DC5V, and there are 2 options for power input:

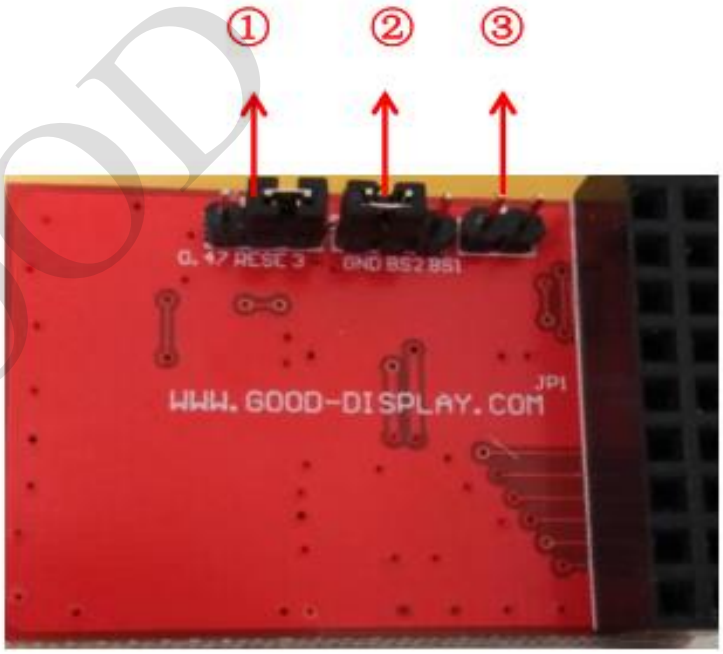
Option 1: Choose "DC5V Power Input" when a short circuit between VCC and PWR.

Option 2: Choose "USB interface" when a short circuit between VCC and USB.

***Sometimes the current output is not enough by USB type which leads to the whole circuit can't work normally, so we recommend DC5V type.**

3.2 The Connector of Pinboard

The pinboard DESTM32-S2 is used for updating 1.54 inch, 2.04 inch, 2.13 inch, 2.7 inch, 2.9 inch, 4.2 inch, 7.5 inch E-paper display. Only connect DESTM32-S2 with its connector on DESTM32-S1 can update e-paper display.



Pic. 03

3.2.1 Position ①

While shorting 0.47Ω resistor and RESE, this mode is suitable for the following E-Paper Displays: 1）1.54 inch E-Paper Display: GDEW0154T8 and GDEW0154Z04

2）2.13 inch E-Paper Display: GDEW0213Z16

3）2.7 inch E-Paper Display: GDEW027W3 and GDEW027C44

4）2.9 inch E-Paper Display: GDEW029T5

5）4.2 inch E-Paper Display: GDEW042T2 and GDEW042Z15

While shorting RESE and 3.0Ω resistor, this model is suitable for the following E-Paper Displays:

1）1.54 inch E-Paper Display: GDEP015OC1, GDEH0154D27, GDEM0154E97LT and GDEW0154Z17

2）2.04 inch E-Paper Display: GDE021A1/ILE021A1

3）2.13 inch E-Paper Display: GDE0213B1/GDEH0213B1 and GDEM0213E28LT

4）2.9 inch E-Paper Display: GDE029A1/GDEH029A1, GDEW029Z10 and GDEM029E27LT

5）7.5 inch E-Paper Display: GDEW075T8 and GDEW075Z09

3.2.2 Position ②

Please shorting BS2 and GND, BS1 is reserved.

3.2.3 Position ③

The part doesn't need a short circuit for now because it is prepared for other size E-paper Display.

3.3 Indicator Lights

There are 4 reserved indicator lights on the circuit board, which can indicate E-Paper Display status, so you can definite them as your requirements.

3.4 Keys

There are 4 keys on the circuit board and they aren't made any definition by DEMO program for users developing.

3.5 Communication

"USB to serial" is reserved for user.

3.6 The Others

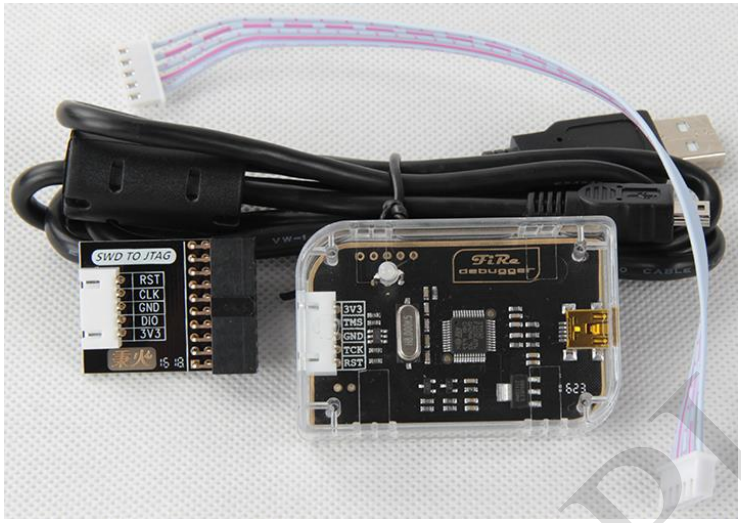
All of IO ports of STM32 have been led out for user.

4. JTAG Simulator (optional)

4.1 Tool: The Fire CMSIS-DAP Simulator

Software: MDK518

JTAG simulator: The Fire CMSIS-DAP simulator, SW simulator



Pic. 04

4.2 The Method of Connecting Simulator, Display and Board. (Pic. 05)

Pic. 05