

TFT DISPLAY SPECIFICATION



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SPECIFICATION

MODULE NO.: WF40ESWAA6DNG0#

General Specifications

Item	Dimension	Unit
Size	4.0	inch
Dot Matrix	480× 3(RGB) × 480	dots
Module dimension	78.8 × 82.95 × 7.17	mm
Active area	71.856 × 70.176	mm
Pixel pitch	0.1497 × 0.1462	mm
LCD type	TFT, Normally Black, Transmissive	
View Direction	80/80/80/80	
Aspect Ratio	1:1	
TFT Interface	3W SPI+RGB24bit	
TFT Driver IC	ST7701S or Equivalent	
Backlight Type	LED, Normally White	
CTP IC	ST1633I or equivalent	
CTP Interface	I2C	
CTP FW Version:	V01	
Touch Panel	With PCAP	
Surface	Anti-glare	

*Color tone slight changed by temperature and driving voltage.

Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	TOP	-30	—	+80	°C
Storage Temperature	TST	-30	—	+80	°C

Electrical Characteristics

1. Typical Operation Conditions

Item	Symbol	Values			Unit
		Min.	Typ.	Max.	
Interface Supply Voltage	VCC	2.5	2.8	3.6	V
Current for Driver(White)	Ivcc	-	27	40.5	mA
Supply CTP	VDDT	2.8	-	3.3	V
	IcTP(mA)	-	12.4	18.6	mA

2. Backlight Driving Conditions

Parameter	Symbol	Min.	Typ.	Max.	Unit
LED current	ILED	-	120	-	mA
LED voltage	VLED+	13.5	15	17	V
LED Life Time		50,000	-	-	Hr

Interface

1. LCM PIN Definition

Pin	Symbol	Function
1	VLED-	Power for LED backlight cathode
2	VLED+	Power for LED backlight anode
3	GND	Power ground
4	VCC	Power supply
5	R0	Data bus
6	R1	
7	R2	
8	R3	
9	R4	
10	R5	
11	R6	
12	R7	
13	G0	Data bus
14	G1	
15	G2	
16	G3	
17	G4	
18	G5	
19	G6	
20	G7	
21	B0	Data bus
22	B1	
23	B2	
24	B3	
25	B4	
26	B5	
27	B6	
28	B7	
29	SCL	SCL: Serial clock input for SPI interface.
30	PCLK	Dot clock signal for RGB interface operation

31	CS	SPI Chip select signal (CSX) Low: the chip is selected and accessible High: the chip is not selected and not accessible
32	HSYNC	Line synchronizing signal for RGB interface operation (HS)
33	VSYNC	Frame synchronizing signal for RGB interface operation (VS)
34	DE	Data enable signal for RGB interface operation Low: access enabled High: access inhibited
35	SDA	SDA: Serial data input/output (In: DIN, Out: DOUT) bidirectional pin for SPI Interface.
36	RESET	- The external reset input (RESX) - Initializes the chip with a low input. Be sure to execute a power-on reset after supplying power.
37-40	NC	No connect

2. CTP PIN Definition

Pin	Symbol	Function
1	VSS	Ground for analog circuit
2	VDDT	Power Supply : +3.0V
3	SCL	I2C clock input
4	NC	No connect
5	SDA	I2C data input and output
6	NC	No connect
7	/RST	External Reset, Low is active
8	NC	No connect
9	/INT	External interrupt to the host
10	VSS	Ground for analog circuit

Contour Drawing

