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SPECIFICATION

CUSTOMER ：

MODULE NO.: WF57-640480FD#002-FC

General Specification

Item	Dimension	Unit
Dot Matrix	640 x RGBx480(TFT)	dots
Module dimension	125.7 x 101.25 x 8.6	mm
Active area	115.2 x 86.4	mm
Dot pitch	0.06 x 0.18	mm
LCD type	TFT, Negative, Transmissive	
View Direction	6 o'clock	
Gray Scale Inversion Direction	12 o'clock	
Backlight Type	LED ,Normally White	

Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Power Supply for Logic	VDD-DGND	-0.3	—	7	V
Power Supply for Analog	AVDD-AGND	-0.3	—	13.5	V
Input Voltage	VI	-0.3	—	VDD+0.3	V
Operating Temperature	TOP	-20	—	+70	℃
Storage Temperature	TST	-30	—	+80	℃

Note: Device is subject to be damaged permanently if stresses beyond those absolute maximum ratings listed above

1. Temp. ≦60℃, 90% RH MAX. Temp.＞60℃, Absolute humidity shall be less than 90% RH at 60℃

Electrical Characteristics

Operating conditions:

Item	Symbol	Condition	Min	Typ	Max	Unit	Remark
Supply Voltage For LCM	VCC	—	3.0	3.3	3.6	V	
Supply Voltage For CTP	VDDT	—	2.8	—	3.3	V	
Supply Current For LCM	ICC	—	—	15	20	mA	Note1
Power Consumption	—	—	—	49.5	72	mW	
Power Supply for Analog	AVDD	AVDD-AGND	—	10.0	—	V	
Input Voltage	VIH	H Level	0.7VCC	—	VCC	V	
	VIL	L Level	0	—	0.3VCC	V	
Recommended LC Driving Voltage for 25℃	VGH	(Note)	—	15.0	—	V	
	VGL		—	-10.0	—	V	
	VCOM		—	3.7	—	V	

Note 1 : This value is test for VCC=3.3V , Ta=25 ℃ only

(1) VGH is TFT Gate on operating Voltage.

(2) VGH is TFT Gate off operating Voltage ,VGL signal must be fluctuates with same phase as VCOM when Storage on Gate structure.

(3) VCOM must be adjusted to optimize display quality Crosstalk , Contrast Ratio and etc

2 LED driving conditions

Parameter	Symbol	Min.	Typ.	Max.	Unit	Remark
LED current	-	-	60	-	mA	-
Power Consumption	-	-	1386	1470	mW	-
LED voltage	VBL+	-	23.1	24.5	V	Note 1
LED Life Time	-	-	25,000	-	Hr	Note 2,3,4

Interface

LCM PIN Definition

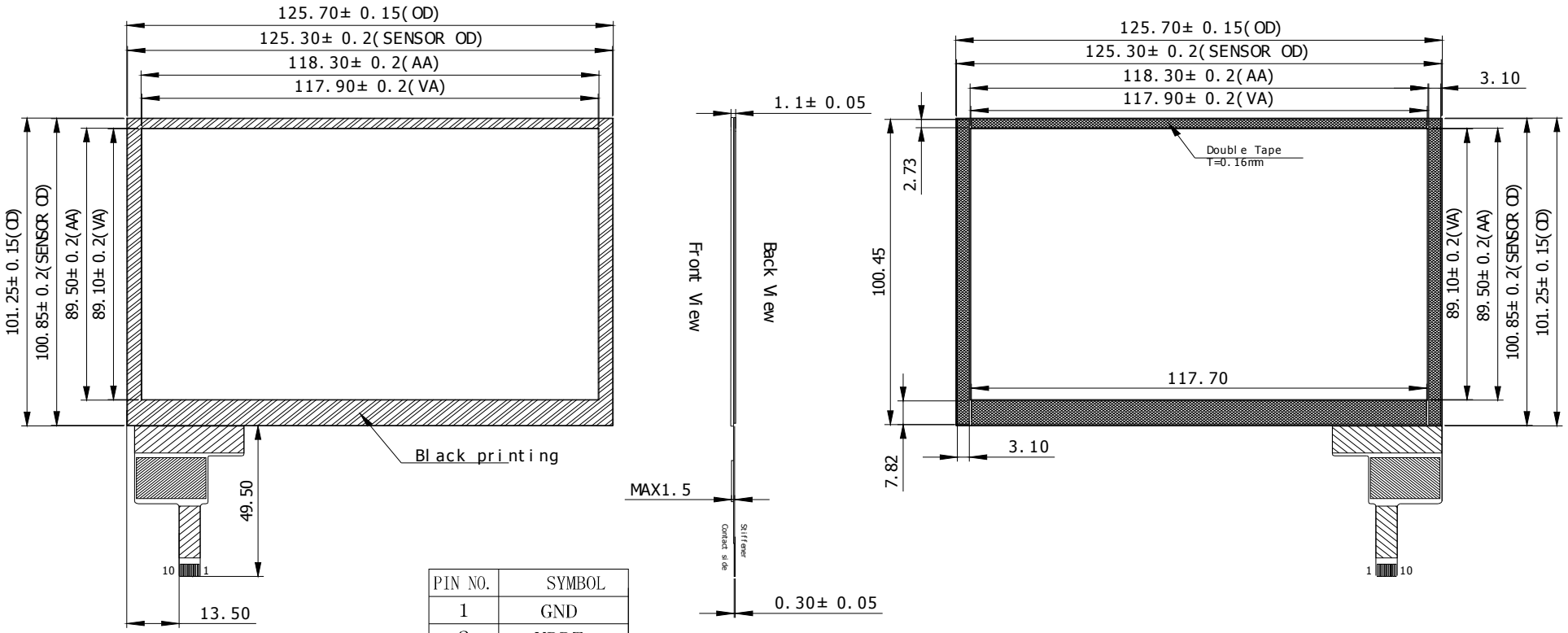
Pin	Symbol	Function	Remark
1	DGND	Ground for digital circuit	
2	VCC	Power Supply : +3.3V	
3	VCC	Power Supply : +3.3V	
4	DGND	Ground for digital circuit	
5	VGL	Gate off power	
6	DGND	Ground for digital circuit	
7	VGH	Gate on power	
8	DGND	Ground for digital circuit	
9	UD	Up/down selection	
10	LR	Left /right selection	
11	SPENA	Chip select	
12	SPCK	Serial Clock	
13	SPDA	Serial Data	
14	NC	No connect	
15	DGND	Ground for digital circuit	
16	B5	Blue Data bus	
17	B4	Blue Data bus	
18	B3	Blue Data bus	
19	B2	Blue Data bus	
20	B1	Blue Data bus	
21	B0	Blue Data bus	
22	NC(TOP)	No connection	
23	NC(RIGHT)	No connection	
24	DGND	Ground for digital circuit	
25	G5	Green Data bit	
26	G4	Green Data bit	
27	G3	Green Data bit	
28	G2	Green Data bit	
29	G1	Green Data bit	
30	G0	Green Data bit	
31	NC(BOTTOM)	No connection	
32	NC(LEFT)	No connection	
33	AGND	Ground	
34	AVDD	Analog power: 10V	
35	AVDD	Analog power: 10V	
36	AGND	Ground	

37	R5	Red Data bit	
38	R4	Red Data bit	
39	R3	Red Data bit	
40	R2	Red Data bit	
41	R1	Red Data bit	
42	R0	Red Data bit	
43	DGND	Ground for digital circuit	
44	DGND	Ground for digital circuit	
45	DE	Data Enable input	
46	CLK	Data Clock	
47	HS	Horizontal sync input	
48	VS	Vertical sync input	
49	VCOM	VCOM driving input	
50	DGND	Ground for digital circuit	

CTP PIN Definition

Pin	Symbol	Function	Remark
1	GND	System ground pin of the IC. Connect to system ground.	
2	VDDT	Power Supply : +3.3V	
3	SCL(SSEL)	SPI Slave mode, chip select, active low / I2C clock input	
4	NC(SCK)	No connect	
5	SDA(MOSI)	SPI Slave mode, data input / I2C data input and output	
6	NC(MISO)	No connect	
7	/RST	External Reset, Low is active	
8	/WAKE	External interrupt from the host	
9	/INT	External interrupt to the host	
10	GND	System ground pin of the IC. Connect to system ground.	

Touch Panel Information

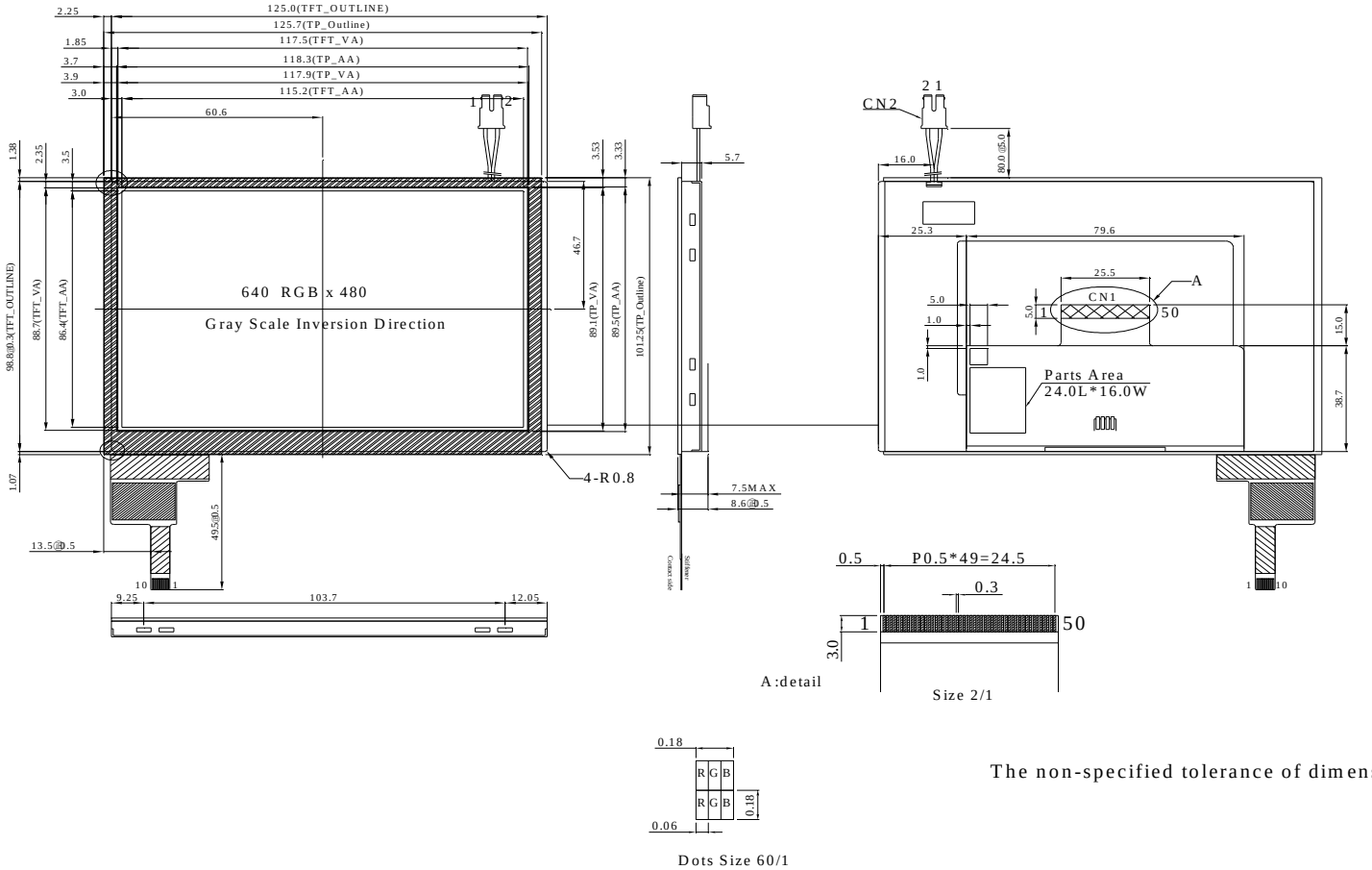


PIN NO.	SYMBOL
1	GND
2	VDDT
3	SCL
4	NC
5	SDA
6	NC
7	/RST
8	/WAKE
9	/INT
10	GND

1	Operating Temperature	-40°C ~85°C
2	Storage Temperature	-50°C ~95°C
3	Input voltage	2.8V~3.6V

The non-specified tolerance of dimension is ±0.2mm

Contour Drawing



CTP

PIN NO.	SYMBOL
1	GND
2	VDDT
3	SCL(SSEL)
4	NC(SCK)
5	SDA(MOSI)
6	NC(MISO)
7	/RST
8	/WAKE
9	/INT
10	GND

CN2

PIN NO.	SYMBOL
1	A
2	K

CN1

PIN NO.	SYMBOL	PIN NO.	SYMBOL
1	DGND	26	G4
2	VDD	27	G3
3	VDD	28	G2
4	DGND	29	G1
5	VGL	30	G0
6	DGND	31	NC(BOTTOM)
7	VGH	32	NC(LEFT)
8	DGND	33	AGND
9	UD	34	AVDD
10	LR	35	AVDD
11	SPENA	36	AGND
12	SPCK	37	R5
13	SPDA	38	R4
14	NC	39	R3
15	DGND	40	R2
16	B5	41	R1
17	B4	42	R0
18	B3	43	DGND
19	B2	44	DGND
20	B1	45	DE
21	B0	46	CLK
22	NC(TOP)	47	HS
23	NC(RIGHT)	48	VS
24	DGND	49	VCOM
25	G5	50	DGND

The non-specified tolerance of dimension is ±0.3mm.