TFT DISPLAY SPECIFICATION

WINSTAR Display Co.,Ltd.

華凌光電股份有限公司

SPECIFICATION

MODULE NO.: WF103BSYA7LNN0#

General Specifications

Item	Dimension	Unit
Size	10.3 (10.25)	inch
Dot Matrix	1280 x R.G.B. x 480	dots
Module dimension	265.2 x 109.8 x 7.0	mm
Active area	243.84 x 91.44	mm
Dot pitch	0.1905 x 0.1905	mm
LCD type	TFT, Normally black, Transmissive	
Viewing angle	85/85/85/85	
Backlight Type	LED, Normally White	
Interface	LVDS	
Touch Panel	Without Touch Panel	
Surface	Anti-Glare	

*Color tone slight changed by temperature and driving voltage.

Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	TOP	-20	—	+70	℃
Storage Temperature	TST	-30	—	+80	℃

Electrical Characteristics

TFT LCD

Item	Symbol	Min	Typ	Max	Unit
Digital Power Supply Voltage	DVDD	3	3.3	3.6	V
Logic Input Voltage (LVDS:IN+,IN-)	VCM	|VID|	-	DVDD-1.2	V
	|VID|	200	-	600	mV
	VTH	-	-	100	mV
	VTL	-100	-	-	mV
1 Data time	UI	-	tclk*1/7	-	tclk
LVDS clock to data skew	tskew	-	-	0.2	UI
input data eye width	teyew	0.6	-	-	UI
Analog Power Supply Voltage	AVDD	12.8	13	13.2	V
Gate On Power Supply Voltage	VGH	21	22	23	V
Gate Off Power Supply Voltage	VGL	-6.6	-6	-5.4	V
Logic Input Voltage	VIH	0.7*DVDD	-	DVDD	V
	VIL	GND	-	0.3*DVDD	V
Gamma Voltage	V1	-	12.35	-	V
	V2	-	10.26	-	V
	V3	-	9.70	-	V
	V4	-	9.02	-	V
	V5	-	8.44	-	V
	V6	-	7.96	-	V
	V7	-	6.98	-	V
	V8	-	6.07	-	V
	V9	-	5.09	-	V
	V10	-	4.6	-	V
	V11	-	4.02	-	V
	V12	-	3.35	-	V
	V13	-	2.79	-	V
	V14	-	0.71	-	V

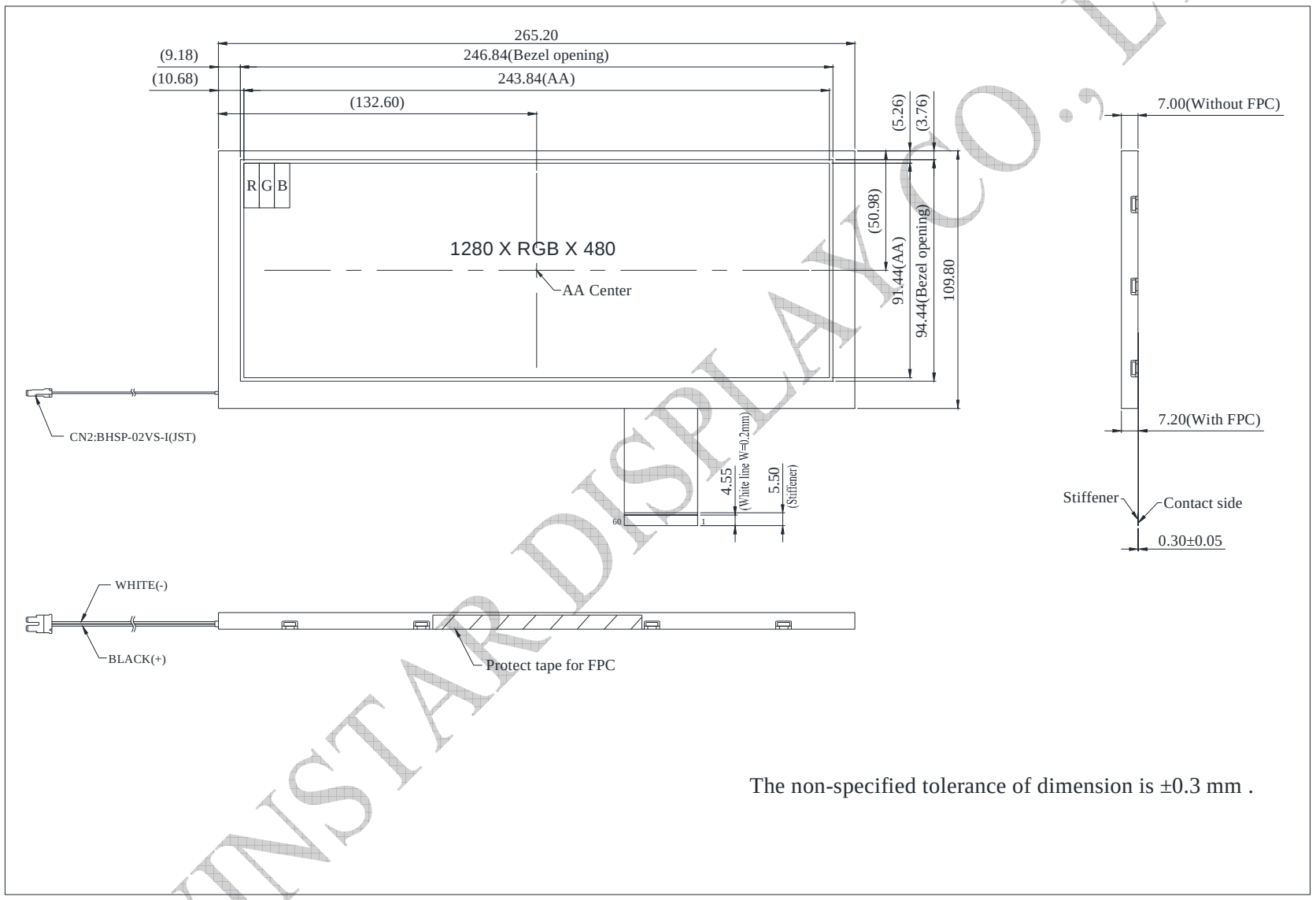
Interface

LCM PIN Definition (CN1)

Pin No	Symbol	Description
1	AGND	Analog ground
2	AVDD	Analog power
3	DVDD	Digital power
4	GND	Digital ground
5	NC	Not connect
6	DVDD	Digital power
7	GND	Digital ground
8	V14	Gamma correction voltage reference
9	V13	
10	V12	
11	V11	
12	V10	
13	V9	
14	V8	
15	GND	Digital ground
16	DVDD_LVDS	LVDS power
17	GND	Digital ground
18	PIND3	Positive LVDS differential data input
19	NIND3	Negative LVDS differential data input
20	GND	Digital ground
21	PINC	Positive LVDS differential clock input
22	NINC	Negative LVDS differential clock input
23	GND	Digital ground
24	PIND2	Positive LVDS differential data input
25	NIND2	Negative LVDS differential data input
26	GND	Digital ground
27	PIND1	Positive LVDS differential data input
28	NIND1	Negative LVDS differential data input
29	GND	Digital ground
30	PIND0	Positive LVDS differential data input
31	NIND0	Negative LVDS differential data input
32	GND	Digital ground
33	GND_LVDS	LVDS ground
34	GRB	Global reset pin. Active low to enter reset state. Suggest to connecting with an RC reset circuit for stability.

		Normally pull high. (R=47KΩ，C=1uF)
35	STBYB	Standby mode, normally pull high STBYB="1", normal operation STBYB="0",timing control, source driver will turn off, all output are GND, suggest to turn off AVDD power simultaneously
36	SHLR	Left or right display control
37	DVDD	Digital power
38	UPDN	Up / down display control
39	AGND	Analog ground
40	AVDD	Analog power
41	NC	Not connect
42	NC	Not connect
43	GND	Digital ground
44	DVDD	Digital Power
45	GND	Digital ground
46	V7	Gamma correction voltage reference
47	V6	
48	V5	
49	V4	
50	V3	
51	V2	
52	V1	
53	GND	Digital ground
54	DVDD	Digital power
55	SELB	6bit/8bit mode select, SELB = "1", LVDS input data is 8bits SELB = "0", LVDS input data is 6bits
56	VGH	Positive power for TFT
57	DVDD	Digital power for Gate IC
58	VGL	Negative power for TFT
59	GND	Digital ground for Gate IC
60	NC	Not connect

Contour Drawing



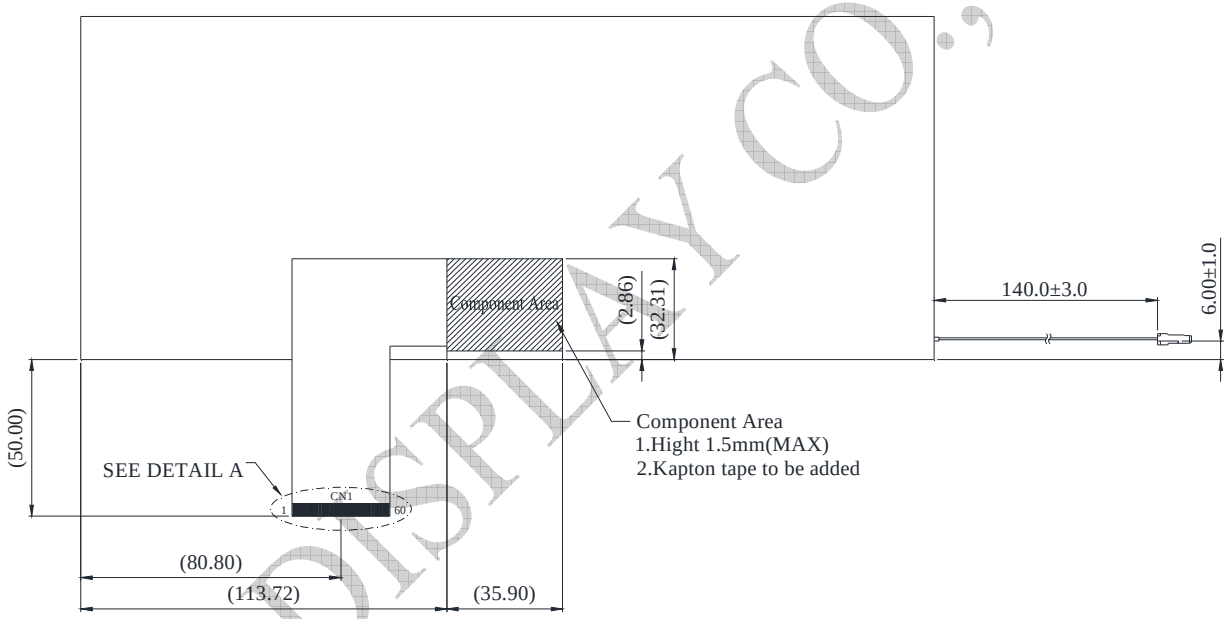
The non-specified tolerance of dimension is ±0.3 mm .

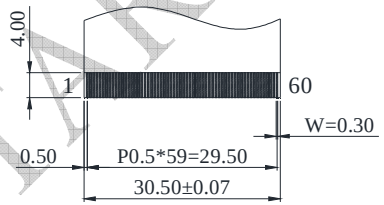
CN1

PIN NO.	SYMBOL	PIN NO.	SYMBOL
1	AGND	31	NIND0
2	AVDD	32	GND
3	DVDD	33	GND_LVDS
4	GND	34	GRB
5	NC	35	STBYB
6	DVDD	36	SHLR
7	GND	37	DVDD
8	V14	38	UPDN
9	V13	39	AGND
10	V12	40	AVDD
11	V11	41	NC
12	V10	42	NC
13	V9	43	GND
14	V8	44	DVDD
15	GND	45	GND
16	DVDD_LVDS	46	V7
17	GND	47	V6
18	PIND3	48	V5
19	NIND3	49	V4
20	GND	50	V3
21	PINC	51	V2
22	NINC	52	V1
23	GND	53	GND
24	PIND2	54	DVDD
25	NIND2	55	SELB
26	GND	56	VGH
27	PIND1	57	DVDD
28	NIND1	58	VGL
29	GND	59	GND
30	PIND0	60	NC

CN2

PIN	SYMBOL
BLACK	+
WHITE	-





DETAIL A
SCALE 2/1

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