

TFT DISPLAY SPECIFICATION



RAYSTAR

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RFF80CB-AIW-DNN

General Specifications

- Dot Matrix: 800 xRGBx480(TFT)
- Module dimension: 192.80 x 116.90 x 6.4 mm
- Active area: 176.64 x99.36 mm
- Pixel size: 0.2208 x 0.2070mm
- LCD type: TFT, Normally White, Transmissive
- View Direction: 12 o'clock
- Gray Scale Inversion Direction: 6 o'clock
- Interface: 24 Bit RGB
- Aspect Ratio: 16:9
- Backlight Type: LED, Normally White
- Touch Panel: Without Touch Panel
- Surface: Anti-Glare

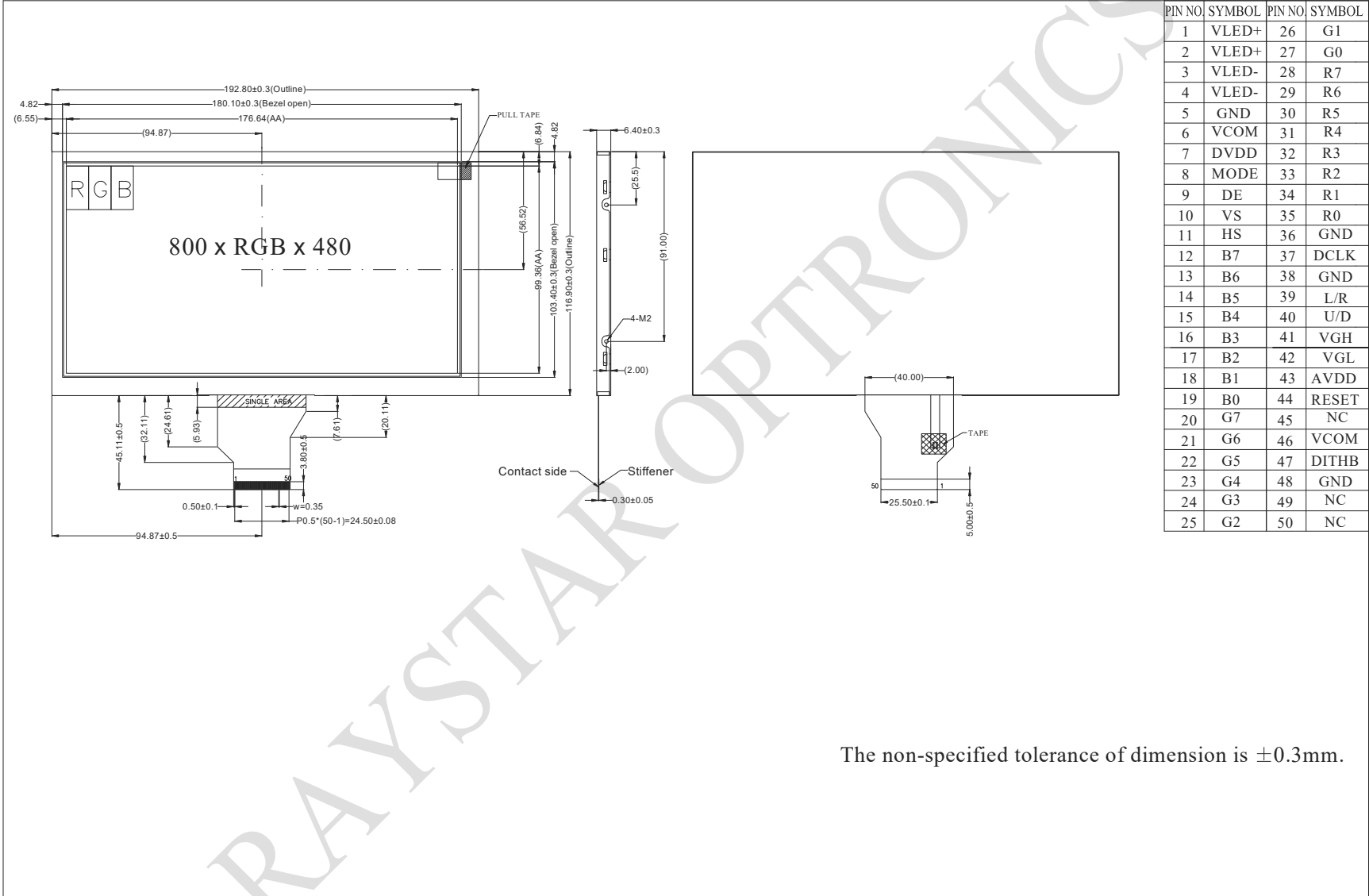
Interface

LCM PIN Definition

Pin	Symbol	Function
1	VLED+	Power for LED backlight(Anode)
2	VLED+	Power for LED backlight(Anode)
3	VLED-	Power for LED backlight(Cathode)
4	VLED-	Power for LED backlight(Cathode)
5	GND	Ground
6	VCOM	Common voltage input
7	DVDD	Digital power supply
8	MODE	DE/SYNC mode select. H:DE mode. L:SYNC mode
9	DE	Data enable signal, active high to enable
10	VS	Vertical Sync Input, negative polarity
11	HS	Horizontal Sync Input, negative polarity
12	B7	Blue data(MSB)
13	B6	Blue data
14	B5	Blue data
15	B4	Blue data
16	B3	Blue data
17	B2	Blue data
18	B1	Blue data
19	B0	Blue data(LSB)
20	G7	Green data(MSB)
21	G6	Green data
22	G5	Green data
23	G4	Green data
24	G3	Green data
25	G2	Green data
26	G1	Green data
27	G0	Green data(LSB)
28	R7	Red data(MSB)
29	R6	Red data
30	R5	Red data

31	R4	Red data
32	R3	Red data
33	R2	Red data
34	R1	Red data
35	R0	Red data(LSB)
36	GND	Ground
37	DCLK	Clock for input data
38	GND	Ground
39	L/R	Source left or right sequence control
40	U/D	Gate up or down scan control
41	V _{GH}	Positive power of TFT
42	V _{GL}	Negative power of TFT
43	AV _{DD}	Analog power supply
44	RESET	Global reset pin.
45	NC	No connection
46	V _{COM}	Common Voltage input
47	DITHB	Dithering setting H: 6 bit resolution , L: 8 bit resolution
48	GND	Ground
49	NC	No connection
50	NC	No connection

Contour Drawing



The non-specified tolerance of dimension is $\pm 0.3\text{mm}$.

Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Supply Voltage	DVDD	-0.3		5.0	V
Operating Temperature	TOP	-20	—	+70	°C
Storage Temperature	TST	-30	—	+80	°C

Electrical Characteristics

Operating conditions:

Item	Symbol	Values			Unit
		Min	Typ	Max	
Digital Power supply voltage	DVDD	3.0	3.3	3.6	V
Analog Power supply voltage	AVDD	10.3	10.4	10.5	V
TFT Device on voltage	VGH	15.3	16.0	16.7	V
TFT Device off voltage	VGL	-7.7	-7.0	-6.3	V
Common electrode driving voltage	VCOM	3.4	4.4	5.4	V
High level Input voltage	VIH	0.7DVDD	—	DVDD	V
Low level Input voltage	VIL	0	—	0.3DVDD	V

LED driving conditions

Parameter	Symbol	Min.	Typ.	Max.	Unit
LED current	ILED	—	240	—	mA
LED voltage	VLED	8.4	9.2	10.6	V
LED Life Time	—	—	20,000	—	Hr