



**RAYSTAR**

**曜凌光電股份有限公司**

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**RFF102AA-AIW-DNS**

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## **SPECIFICATION**

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## General Specifications

- Size: 10.2 inch
- Dot Matrix: 800 x RGB x 480(TFT) dots
- Module dimension: 235 x 145.8 x 7.6 mm
- Active area: 222 x 132.48 mm
- Dot pitch: 0.0925 x 0.2775 mm
- LCD type: TFT, Normally White, Transmissive
- View Direction: 12 o'clock
- Gray Scale Inversion Direction: 6 o'clock
- Aspect Ratio: 16:9
- Backlight Type: LED , Normally White
- Touch Panel: Resistive Touch Panel
- Surface: Anti-Glare

\*Color tone slight changed by temperature and driving voltage.

## Interface

### 1. TFT LCD Panel Driving Section

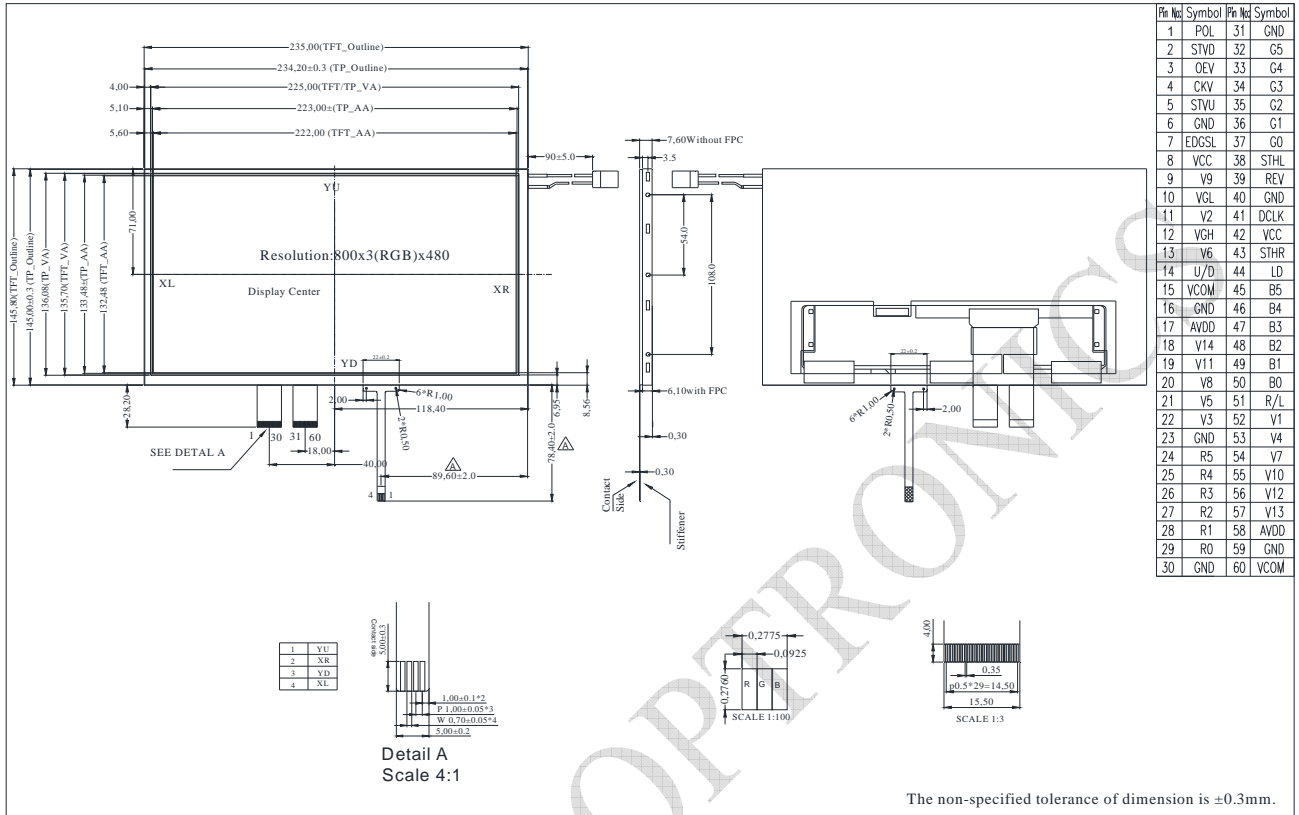
FPC connector is used for the module electronics interface. The recommended model is "AF 730L-A2G1T" manufactured by P-TWO.

Pin No.	Symbol	I/O	Function
1	POL	I	Polarity selection
2	STVD	I/O	Vertical start pulse input when U/D= H
3	OEV	I	Output enable
4	CKV	I	Vertical clock
5	STVU	I/O	Vertical start pulse input when U/D= L
6	GND	P	Power ground
7	EDGSL	I	Select rising edge or rising/falling edge
8	V <sub>CC</sub>	P	Power supply for digital circuit
9	V <sub>9</sub>	I	Gamma voltage level 9
10	V <sub>GL</sub>	P	Gate OFF voltage
11	V <sub>2</sub>	I	Gamma voltage level 2
12	V <sub>GH</sub>	P	Gate ON voltage
13	V <sub>6</sub>	I	Gamma voltage level 6
14	U/D	I	Up/down selection
15	V <sub>COM</sub>	I	Common voltage
16	GND	P	Power ground
17	AV <sub>DD</sub>	P	Power supply for analog circuit
18	V <sub>14</sub>	I	Gamma voltage level 14
19	V <sub>11</sub>	I	Gamma voltage level 11
20	V <sub>8</sub>	I	Gamma voltage level 8
21	V <sub>5</sub>	I	Gamma voltage level 5
22	V <sub>3</sub>	I	Gamma voltage level 3
23	GND	P	Power ground
24	R <sub>5</sub>	I	Red data(MSB)
25	R <sub>4</sub>	I	Red data
26	R <sub>3</sub>	I	Red data
27	R <sub>2</sub>	I	Red data
28	R <sub>1</sub>	I	Red data
29	R <sub>0</sub>	I	Red data(LSB)
30	GND	P	Power ground

31	GND	P	Power ground
32	G5	I	Green data(MSB)
33	G4	I	Green data
34	G3	I	Green data
35	G2	I	Green data
36	G1	I	Green data
37	G0	I	Green data(LSB)
38	STHL	I/O	Horizontal start pulse input when R/L = L
39	REV	P	Control signal are inverted or not
40	GND	I	Power ground
41	DCLK	I	Sample clock
42	VCC	P	Power supply for digital circuit
43	STHR	I/O	Horizontal start pulse input when R/L = H
44	LD	I	Latches the polarity of outputs and switches the new data to outputs
45	B5	I	Blue data (MSB)
46	B4	I	Blue data
47	B3	I	Blue data
48	B2	I	Blue data
49	B1	I	Blue data
50	B0	I	Blue data (LSB)
51	R/L	I	Right/ left selection
52	V1	I	Gamma voltage level 1
53	V4	I	Gamma voltage level 4
54	V7	I	Gamma voltage level 7
55	V10	I	Gamma voltage level 10
56	V12	I	Gamma voltage level 12
57	V13	I	Gamma voltage level 13
58	AVDD	P	Voltage for analog circuit
59	GND	P	Power ground
60	VCOM	I	Common voltage

I: input, O: output, P: Power

# Contour Drawing



RAYSTAR OPERATIONS

## Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	TOP	-30	—	+85	°C
Storage Temperature	TST	-30	—	+85	°C

## Electrical Characteristics

### Operating conditions:

Item	Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage	VCC	—	3.0	3.3	3.6	V
	AVDD	—	9.0	9.2	9.4	V
	VGH	—	15.3	16	16.7	V
	VGL	—	-7.7	-7.0	-6.3	V
Input signal voltage	VCOM	—	3.65	3.85	4.05	V
	V1~V7	—	0.4	—	AVDD-0.1	V
	V8~V14	—	0.1	—	0.6AVDD	V