



**RAYSTAR**

**曜凌光電股份有限公司**

Web: [www.raystar-optronics.com](http://www.raystar-optronics.com) E-mail: [sales@raystar-optronics.com](mailto:sales@raystar-optronics.com)

**RFF700A4-AWH-DNN**

---

## **SPECIFICATION**

---

## General Specifications

- Size: 7.0 inch
- Dot Matrix: 800 x RGB x 480(TFT) dots
- Module dimension: 165.8 (W) x 106.61 (H) x 6.5(D) mm
- Active area: 152.40 x 91.44 mm
- Dot pitch: 0.1905 x 0.1905 mm
- LCD type: TFT, Normally Black, Transmissive
- TFT Interface: 24-bit RGB
- TFT Driver IC: TBDNT51632T + NT52601TT
- View Direction: 85/85/85/85
- Aspect Ratio: 16:9
- Backlight Type: LED, Normally White
- Touch Panel: Without Touch Panel
- Surface: Glare, 3H

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

## Interface

### 1. LCM PIN Definition

Pin	Symbol	Function
1	AGND	Analog Ground
2	AVDD	Analog Power
3	VCC	Digital Power
4	R0	Red data(LSB)
5	R1	Red data
6	R2	Red data
7	R3	Red data
8	R4	Red data
9	R5	Red data
10	R6	Red data
11	R7	Red data(MSB)
12	G0	Green data(LSB)
13	G1	Green data
14	G2	Green data
15	G3	Green data
16	G4	Green data
17	G5	Green data
18	G6	Green data
19	G7	Green data(MSB)
20	B0	Blue data(LSB)
21	B1	Blue data
22	B2	Blue data
23	B3	Blue data
24	B4	Blue data
25	B5	Blue data
26	B6	Blue data
27	B7	Blue data(MSB)
28	DCLK	Clock input
29	DE	Data enable signal
30	HSD	Horizontal sync input. Negative polarity
31	VSD	Vertical sync input. Negative polarity
32	MODE	DE/SYNC mode select .normally pull low H: HV mode L: DE mode Suggest used DE mode, float HSD & VSD pin
33	RSTB	Global reset pin. Normally pull high. H: normal operation. L: the controller is in reset state. Suggest to connecting with an RC (10KΩ, 0.1μF) reset circuit for stability.
34	STBYB	Standby mode. Normally pull low. H: normal operation.

		L: the controller and source driver will turn off. Suggest to connecting with an RC (10KΩ, 0.47μF) reset circuit for stability.
35	SHLR	Left or Right Display Control. Note1.
36	VCC	Digital Power
37	UPDN	Up / Down Display Control. Note1
38	GND	Digital Ground
39	AGND	Analog Ground
40	AVDD	Analog Power
41	VCOM	For external VCOM DC input
42	N/C	Not connect
43	N/C(BIST)	Not connect (Option Aging mode on/off control. Please float this pin)
44	N/C	Not connect
45	N/C	Not connect
46	N/C	Not connect
47	N/C	Not connect
48	N/C(CSB)	Not connect (Option Serial communication chip selection. Please float this pin.)
49	N/C(SCL)	Not connect (Option Serial communication clock pin. Please float this pin.)
50	N/C(SDO)	Not connect (Option Serial communication data out pin. Please float this pin.)
51	N/C(SDI)	Not connect (Option Serial communication data pin. Please float this pin.)
52	N/C	Not connect
53	N/C(VPP_T)	Not connect (Option Power supply for trim function. Please float this pin.)
54	N/C	Not connect
55	N/C	Not connect
56	VGH	Positive Power for TFT
57	VCC	Digital Power
58	VGL	Negative Power for TFT
59	GND	Digital Ground
60	N/C	Not connect

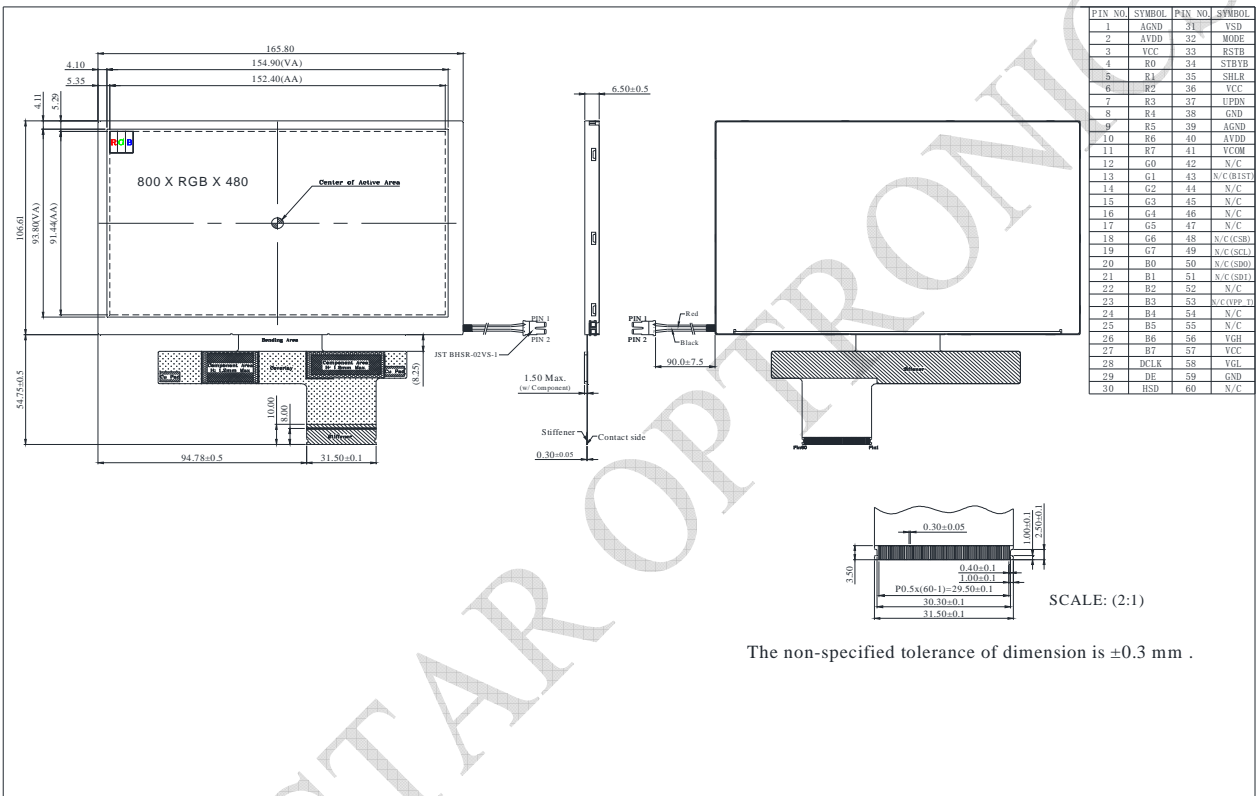
Note1 : SHLR and UPDN control function

SHLR	UPDN	Data shifting
H	H	Left→Right, Up→Down
L	H	Right→Left, Up→Down
L	L	Right→Left, Down→Up
H	L	Left→Right, Down→Up

## 2. Backlight PIN Definition

Pin No.	Symbol	Description
1	A	Red, LED_ Anode
2	K	Black, LED_ Cathode

## Contour Drawing



## Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	TOP	-30	—	+80	°C
Storage Temperature	TST	-40	—	+90	°C

## Electrical Characteristics

### 1. Operating conditions

Item	Symbol	Min	Typ	Max	Unit
Supply Voltage	Vcc	3.0	3.3	3.6	V
	VGH	—	19	—	V
	VGL	—	-10	—	V
	AVDD	—	12.4	—	V
VCOM	VCOMin	—	5.5	—	V
Input signal voltage	ViH	0.7*Vcc	—	Vcc	V
	ViL	0	—	0.3*Vcc	V
Current of power supply	IDD	—	15	—	mA
	IADD	—	20	—	mA
	IGH	—	0.25	—	mA
	IGL	—	0.50	—	mA

### 2. LED driving conditions

Parameter	Symbol	Min	Typ	Max	Unit
LED current	—	—	360	—	mA
LED voltage	A~K	13.5	15.0	17.2	V
LED Life Time	—	50000	—	—	Hr