TFT DISPLAY SPECIFICATION

RAYSTAR Optronics, Inc.
曜凌光電股份有限公司

曜凌光電股份有限公司
Raystar Optronics, Inc.
T: +886-4-2565-0761 | F: +886-4-2565-0760
salescontact@raystar-optronics.com | www.raystar-optronics.com

RFF700D2-6WH-DNG

General Specifications

- Size: 7.0 inch
- Dot Matrix: 800 x RGBx480(TFT) dots
- Module dimension: 181.2(W) x 105.4(H) x 9.8 (MAX)(D) mm
- Active area: 152.4 x 91.44 mm
- Pixel pitch: 0.1905x 0.1905 mm
- LCD type: TFT, Normally Black, Transmissive
- View Angle: 85/85/85/85
- TFT IC: RM53052+RM57452
- Aspect Ratio: 16:9
- Backlight Type: LED, Normally White
- TFT Interface: 18-bit RGB
- PCAP Driver IC: ILI2130
- PCAP Interface: I2C
- PCAP FW Version: 0x07.0x00.0x00.0x00.0x70.0x44.0x0A.0x02
- PCAP Resolution: 16384*16384
- Touch Panel: Projected Capacitive Touch Screen, PCAP
- Surface: Glare

RAYSTAR OPTRONICS

Interface

LCM PIN Definition

Pin	Symbol	Function
1	GND	Power Ground
2	GND	Power Ground
3	NC	Not Connect
4	Vcc	Power Supply for Digital Circuit
5	Vcc	Power Supply for Digital Circuit
6	Vcc	Power Supply for Digital Circuit
7	Vcc	Power Supply for Digital Circuit
8	NC	Not Connect
9	DE	Data Enable
10	GND	Power Ground
11	GND	Power Ground
12	GND	Power Ground
13	B5	Blue Data 5 (MSB)
14	B4	Blue Data 4
15	B3	Blue Data 3
16	GND	Power Ground
17	B2	Blue Data 2
18	B1	Blue Data 1
19	B0	Blue Data 0 (LSB)
20	GND	Power Ground
21	G5	Green Data 5 (MSB)
22	G4	Green Data 4
23	G3	Green Data 3
24	GND	Power Ground
25	G2	Green Data 2
26	G1	Green Data 1
27	G0	Green Data 0(LSB)
28	GND	Power Ground

RAYSTAR OPTRONICS

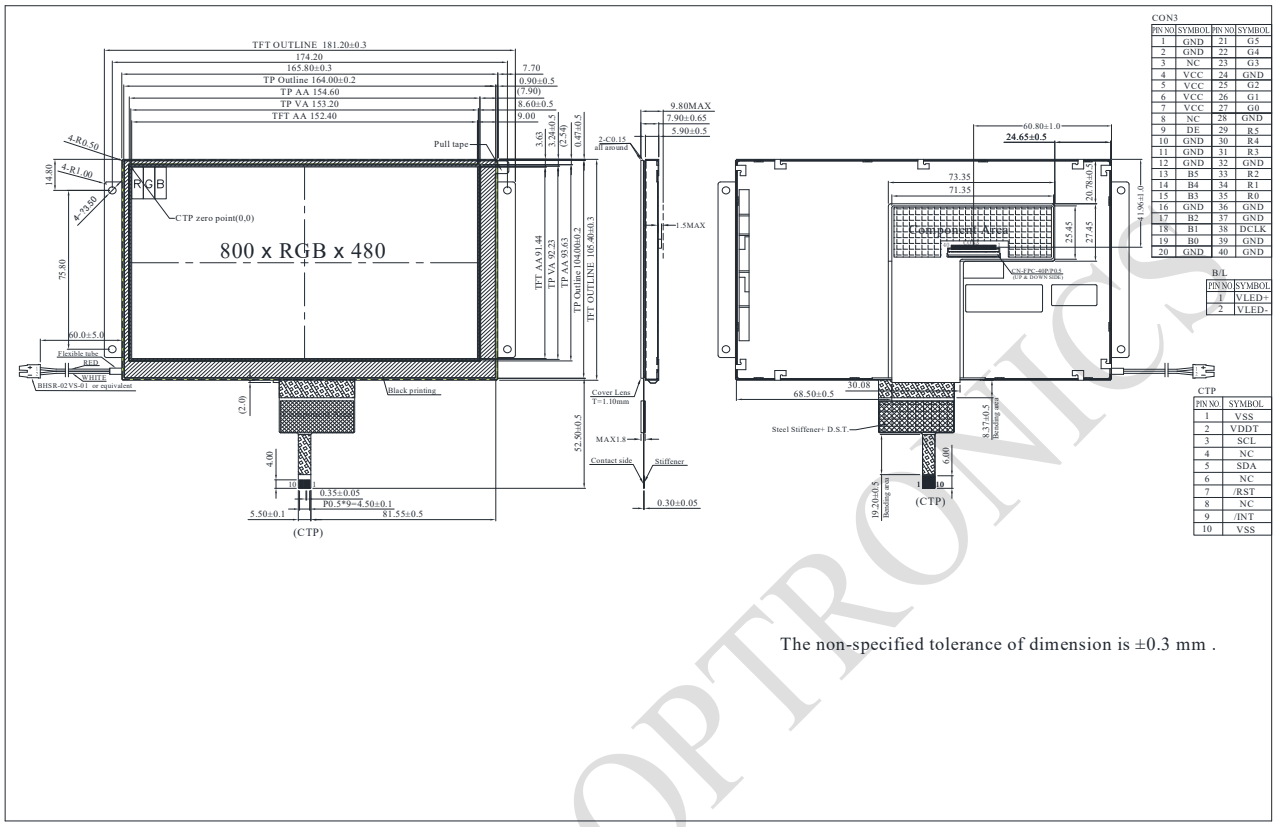
29	R5	Red Data 5 (MSB)
30	R4	Red Data 4
31	R3	Red Data 3
32	GND	Power Ground
33	R2	Red Data 2
34	R1	Red Data 1
35	R0	Red Data 0(LSB)
36	GND	Power Ground
37	GND	Power Ground
38	DCLK	Clock Signals ; Latch Data at the Falling Edge (CLK)
39	GND	Power Ground
40	GND	Power Ground

PCAP PIN Definition

Pin	Symbol	Function
1	VSS	Ground for analog circuit
2	VDDT	Power Supply : +3.3V
3	SCL	I2C clock input
4	NC	No connect
5	SDA	I2C data input and output
6	NC	No connect
7	/RST	External Reset, Low is active
8	NC	No connect
9	/INT	External interrupt to the host
10	VSS	Ground for analog circuit

RAYSTAR OPTRONICS

Contour Drawing



CON3

PIN NO	SYMBOL	PIN NO	SYMBOL
1	GND	21	G5
2	GND	22	G4
3	NC	23	G3
4	VCC	24	GND
5	VCC	25	G2
6	VCC	26	G1
7	VCC	27	G0
8	NC	28	GND
9	DE	29	R5
10	GND	30	R4
11	GND	31	R3
12	GND	32	GND
13	B5	33	R2
14	B4	34	R1
15	B3	35	R0
16	GND	36	GND
17	B2	37	GND
18	B1	38	DCLK
19	B0	39	GND
20	GND	40	GND

B/L

PIN NO	SYMBOL
1	VLED+
2	VLED-

CTP

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

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

RAYSTAR OPTRONICS

Absolute Maximum Ratings

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

Electrical Characteristics

Operating Conditions

Item	Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage For LCM	Vcc	—	3.0	3.3	3.6	V
Supply Current For LCM	Icc	Black Pattern	—	85	130	mA
Supply PCAP	VDDT		3.1	3.3	3.5	V
	I_{CTP}		—	65	100	mA

LED Driving Conditions

Parameter	Symbol	Min.	Typ.	Max.	Unit
LED current	—	—	110	—	mA
LED voltage	VLED+	22.4	24.0	25.6	V
LED Life Time	—	50,000	—	—	Hr

RAYSTAR OPTRONICS