



RAYSTAR

曜凌光電股份有限公司

RFS390Q-EIW-DBG

SPECIFICATION

General Specifications

- Size: 3.9 inch
- Dot Matrix: 480 x 128 x RGB (TFT) dots
- Module dimension: 122.0 x 44.0 x 9.8(max) mm
- Active area: 95.04 x 25.34 mm
- Dot pitch: 0.066(W) x 0.198(H) mm
- LCD type: TFT, Normally White, Transmissive
- View Direction: 12o'clock
- Gray Scale Inversion Direction: 6 o'clock
- Aspect Ratio: Bar Type
- TFT Driver IC: SSD1963
- TFT Interface: Digital 8080 family MPU 8bit/16bit
- PCAP IC: CYTMA568 Or Equal
- PCAP FW Version: **TBD**
- Backlight Type: LED, Normally White
- Color arrangement: RGB-STRIFE

*Color tone slight changed by temperature and driving voltage.

Interface

1. LCM PIN Definition

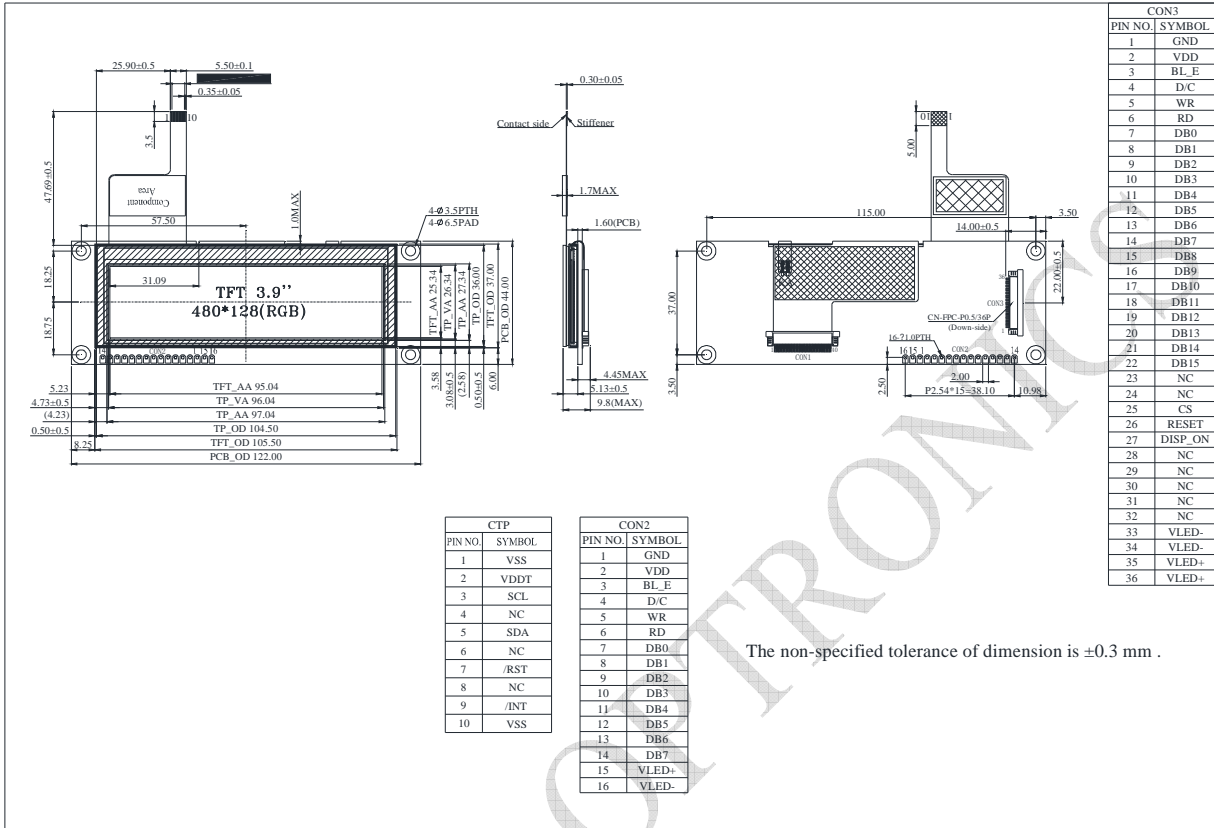
Pin	Symbol	Function
1	GND	System round pin of the IC. Connect to system ground.
2	VDD	Power Supply : +3.3V
3	BL_E	Backlight control signal , H: On \ L: Off
4	D/C	Data/Command select
5	WR	Write strobe signal
6	RD	Read strobe signal
7	DB0	Data bus
8	DB1	Data bus
9	DB2	Data bus
10	DB3	Data bus
11	DB4	Data bus
12	DB5	Data bus
13	DB6	Data bus
14	DB7	Data bus
15	DB8	Data bus (When select 8bits mode, this pin is NC)
16	DB9	Data bus (When select 8bits mode, this pin is NC)
17	DB10	Data bus (When select 8bits mode, this pin is NC)
18	DB11	Data bus (When select 8bits mode, this pin is NC)
19	DB12	Data bus (When select 8bits mode, this pin is NC)
20	DB13	Data bus (When select 8bits mode, this pin is NC)
21	DB14	Data bus (When select 8bits mode, this pin is NC)
22	DB15	Data bus (When select 8bits mode, this pin is NC)
23	NC	No connect
24	NC	No connect
25	CS	Chip select
26	RESET	Hardware reset
27	DISP_ON	Display on/off control
28	NC	No connect
29	NC	No connect

30	NC	No connect
31	NC	No connect
32	NC	No connect
33	VLED-	VLED- for B/L LED inverter (GND)
34	VLED-	VLED- for B/L LED inverter (GND)
35	VLED+	VLED+ for B/L LED inverter (+5V)
36	VLED+	VLED+ for B/L LED inverter (+5V)

2. PCAP PIN Definition

Pin	Symbol	Function
1	VSS	Ground for analog circuit
2	VDDT	Power Supply : +3.0V
3	SCL	I2C clock input 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

Contour Drawing



Absolute Maximum Ratings

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

Electrical Characteristics

1. Operating conditions: (CON3.Pin1=GND, Pin2=VDD)

Item	Symbol	Min	Typ	Max	Unit
Supply Voltage For LCM	VDD	3.0	3.1	3.3	V
Supply Current For LCM	IDD	—	200	—	mA
Supply Voltage For CTP	VDDT	2.8	—	3.3	V
Supply Current For CTP	IDDT	—	35	—	mA

2. Backlight driving conditions (CON3.Pin33,34=VLED-, Pin35,36=VLED+)

Item	Symbol	Min	Typ	Max	Unit
Operation Current For LED Driver	VLED=5V	-	150	-	mA
Supply Voltage For LED Driver	VLED+	-	5	-	V
LED Life Time		-	50,000	-	Hr