



RAYSTAR

曜凌光電股份有限公司

Web: www.raystar-optronics.com E-mail: sales@raystar-optronics.com

RFS520Q-ELW-DBG

SPECIFICATION

General Specifications

- Size: 5.2 inch
- Dot Matrix: 480 x RGB x 128 dots
- Module dimension: 180.0 x 65.0 x 11.8 mm
- Active area: 127.152 x 33.9072 mm
- Dot pitch: 0.0883 x 0.2649 mm
- LCD type: TFT, Normally White, Transmissive
- View Direction: 6o'clock
- Gray Scale Inversion Direction: 12 o'clock
- Aspect Ratio: Bar Type
- Backlight Type: LED, Normally White
- Driver IC: SSD1963
- Interface: Digital 8080 family MPU 8bit/16bit
- With /Without TP: With PCAP
- Surface: Glare

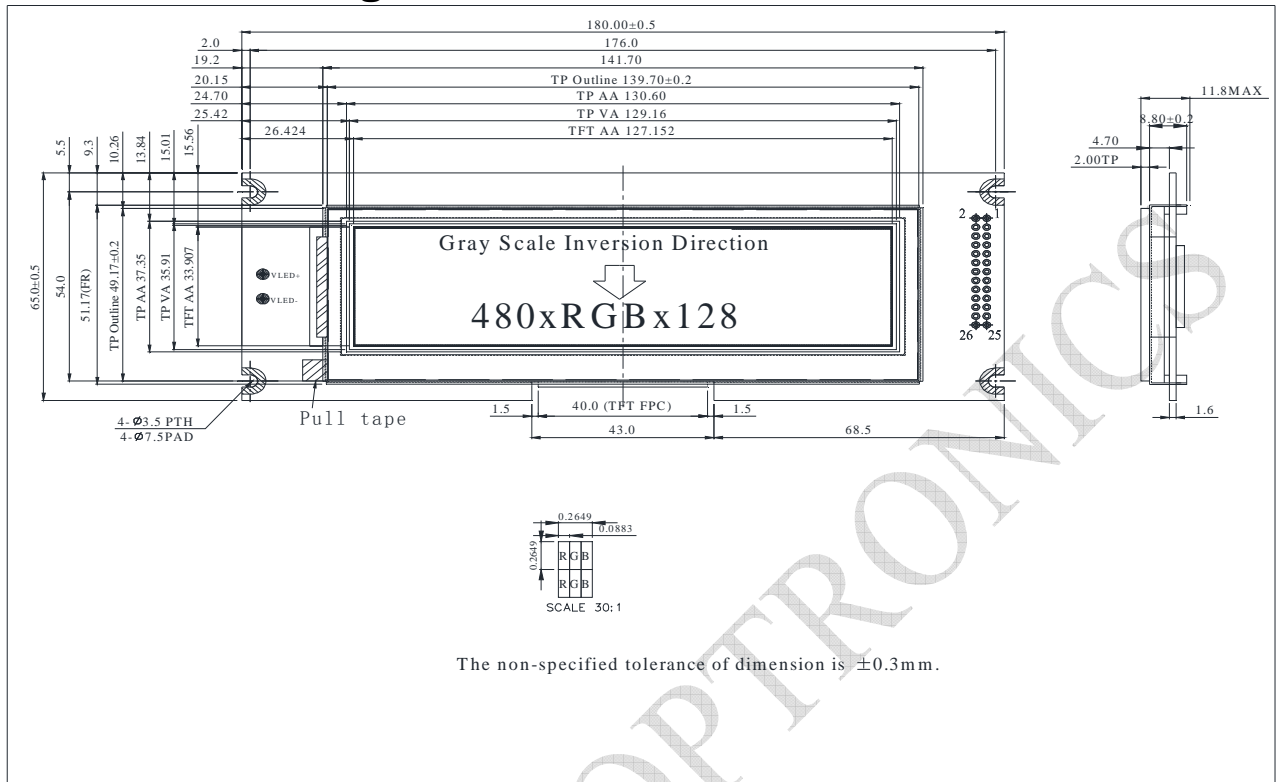
*Color tone slight changed by temperature and driving voltage.

Interface

LCM PIN Definition (CON4)

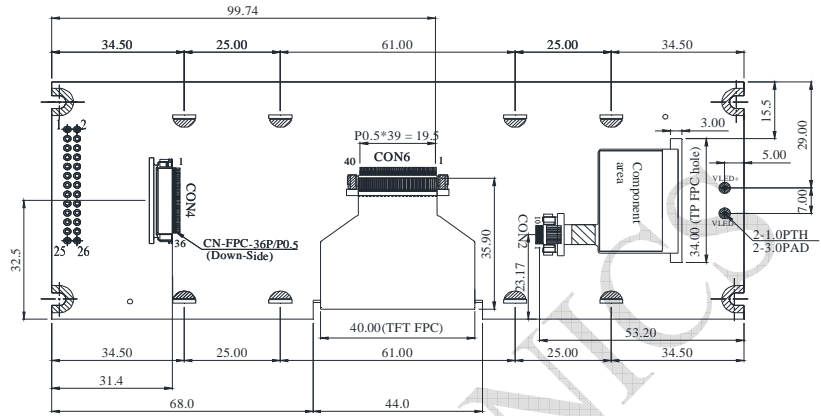
Pin	Symbol	Function
1	GND	System round pin of the IC.
2	VDD	Power Supply : +3.3V
3	BL_E	Backlight control signal , H: On \ L: Off
4	D/C	Data/Command select
5	WR	Write strobe signal
6	RD	Read strobe signal
7	DB0	Data bus
8	DB1	Data bus
9	DB2	Data bus
10	DB3	Data bus
11	DB4	Data bus
12	DB5	Data bus
13	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	CTP_INT	CTP_ External interrupt to the host
25	CS	Chip select
26	RESET	Hardware reset
27	LR	Right /Left selection; Default R/L is Pull High
28	UD	Up/down selection; Default U/D is Pull High
29	CTP_SCL	CTP_ SPI Slave mode, chip select, active low / I2C clock input
30	CTP_SDA	CTP_ SPI Slave mode, data input / I2C data input and output
31	CTP_RST	CTP_ External Reset, Low is active
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)

Contour Drawing



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CON4	
PIN NO.	SYMBOL
1	GND
2	VDD
3	BL_E
4	C/D
5	WR
6	RD
7	DB0
8	DB1
9	DB2
10	DB3
11	DB4
12	DB5
13	DB6
14	DB7
15	DB8
16	DB9
17	DB10
18	DB11
19	DB12
20	DB13
21	DB14
22	DB15
23	NC
24	CTP_INT
25	CS
26	RESET
27	LR
28	UD
29	CTP_SCL
30	CTP_SDA
31	CTP_RST
32	NC
33	VLED-
34	VLED-
35	VLED+
36	VLED+



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

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Absolute Maximum Ratings

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

Electrical Characteristics

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

Item	Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage For LCM	VDD	—	3.0	3.1	3.3	V
Supply Current For LCM	IDD	—	—	200	—	mA

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

Parameter	Symbol	Min	Typ	Max	Unit
Operation Current For LED Driver	VLED=5V	-	250	-	mA
Supply Voltage For LED Driver	VLED+	-	5	-	V
LED Life Time		-	50,000	-	Hr