

TFT DISPLAY SPECIFICATION



RAYSTAR

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

RFF50AF-EYH-DSG

General Specifications

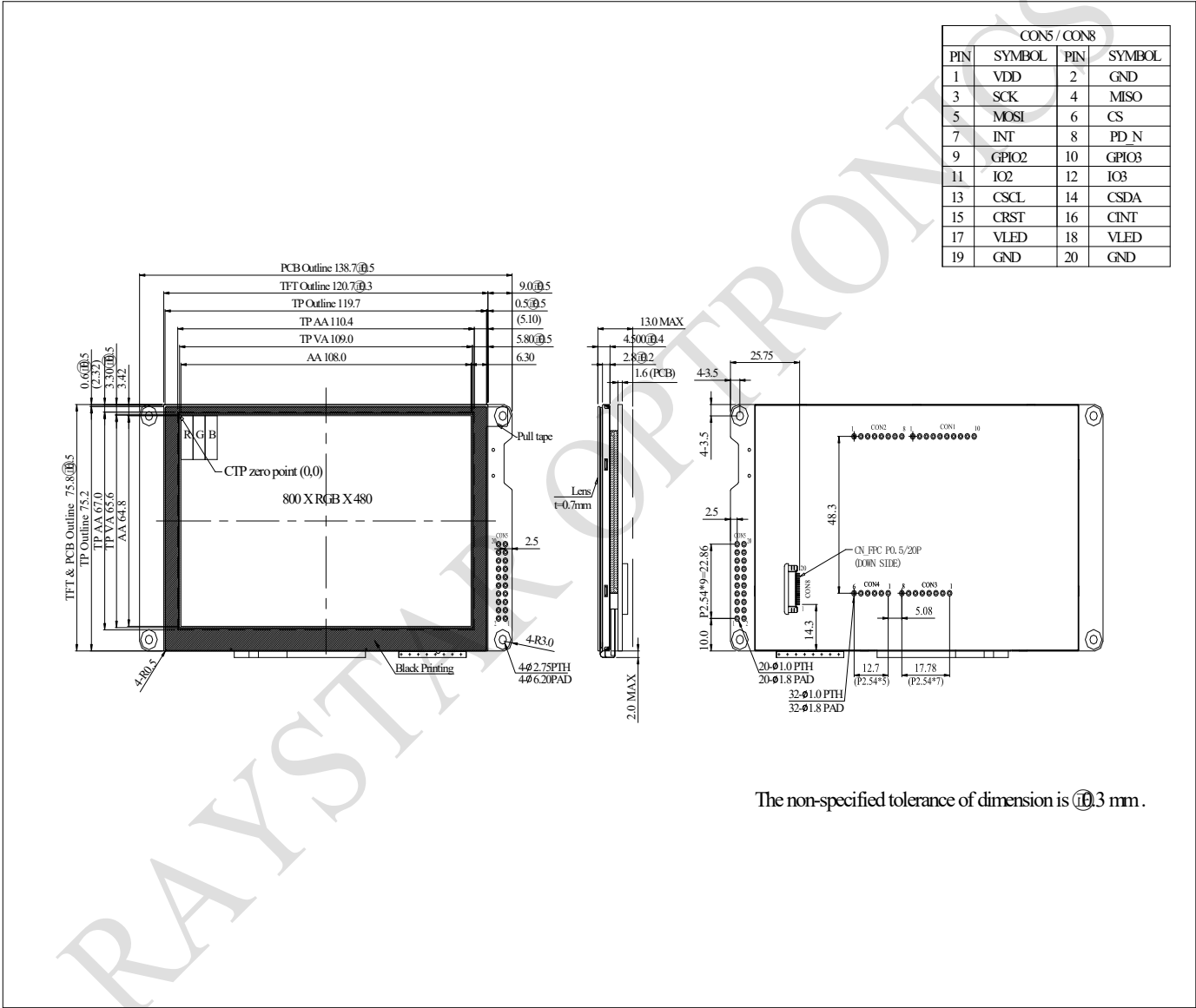
- Size: 5.0 inch
- Dot Matrix: 800× 3(RGB) × 480 dots
- Module dimension: 138.7 (W) x 75.8 (H) x 13.0(D)(MAX) mm
- Active area: 108(W) ×64.8 (H) mm
- Pixel pitch: 0.135(W) ×0.135(H) mm
- LCD type: TFT, Normally Black, Transmissive
- View Direction: 80/80/80/80 (IPS)
- Aspect Ratio: 5:3
- Backlight Type: LED, Normally White
- Controller IC: BT815Q
- Interface: SPI/QSPI
- PCAP IC: ILI2130
- PCAP Interface: I2C
- PCAP FW Version: 0x07.0x00.0x00.0x00.0xA1.0x25.0x50.0x00
- PCAP Resolution: 16384*16384
- Touch Panel: Projected Capacitive Touch Panel, PCAP
- Surface: Glare

Interface

LCM PIN Definition (CON 5/CON 8)

Pin	Symbol	I/O	Function
1	VDD	P	3.3V power supply input
2	GND	P	Ground
3	SCK	I	SPI clock input
4	MISO	O	SPI Single mode: SPI MISO output SPI Dual/Quad mode: SPI data line 1
5	MOSI	I	SPI Single mode: SPI MOSI input SPI Dual/Quad mode: SPI data line 0
6	CS	I	SPI slave select input
7	INT	OD/O	Interrupt to host, open drain output(default) or push-pull output, active low
8	PD_N	I	Chip power down mode control input, active low. Connect to MCU GPIO for power management or hardware reset function
9	GPIO2	I/O	General purpose IO 2
10	GPIO3	I/O	General purpose IO 3
11	IO2	I/O	SPI Single/Dual mode: General purpose IO 0 SPI Quad mode: SPI data line 2
12	IO3	I/O	SPI Single/Dual mode: General purpose IO 1 SPI Quad mode: SPI data line 3
13	C_SCL	I	Connect to I2C SCL pin of the CTP(ILI2130)
14	C_SDA	I/O	Connect to I2C SDA pin of the CTP(ILI2130)
15	CRST	I	Connect to reset pin of the CTP(ILI2130)
16	C_INT	O	Connect to interrupt pin of the CTP(ILI2130)
17	VLED	P	5V power supply input
18	VLED	P	5V power supply input
19	GND	P	Ground
20	GND	P	Ground

Contour Drawing



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

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:

Item	Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage For VDD	VDD	—	3.1	3.3	3.5	V
Supply Current For VDD	IDD	VDD=3.3V	—	147	220	mA
Supply Voltage For VLED	VLED	—	4.5	5	5.5	V
Supply Current For VLED	ILED	VLED=+5V	—	334	500	mA