



**RAYSTAR**

**曜凌光電股份有限公司**

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**RFK1010F-AYH-LNB**

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## **SPECIFICATION**

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## General Specifications

- Screen Diagonal: 10.1 inch
- Number of Pixels: 1280 x 3 (RGB) x 800 dots
- Module dimension: 274.5 x 198.0 x 9.48 mm
- Active area: 216.96 (H) x 135.6(V) mm
- Pixel pitch: 0.1695 × 0.1695 mm
- Display Mode: Normally Black
- Pixel Arrangement: R.G.B. Vertical Stripe
- Backlight Type: LED, Normally White
- Aspect Ratio: 16:9
- Electrical Interface (Logic): LVDS
- PCAP IC: ILI2511
- PCAP Interface: USB (I2C available)
- PCAP FW Version: V 6. 0. 0. 0.10. 1.60. 1
- Touch Panel: With PCAP
- Surface: Glare

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

## Interface

### Interface Connector

A 40pin connector is used for the module electronics interface. The recommended model is F62240-H1210B manufactured by Vigorconn.

Pin No.	Symbol	I/O	Function
1	VCOM	P	Common Voltage
2	VDD	P	Power Supply
3	VDD	P	Power Supply
4	NC	-	No connection
5	NC	-	No connection
6	NC	-	No connection
7	GND	P	Ground
8	Rxin0-	I	-LVDS Differential Data Input
9	Rxin0+	I	+LVDS Differential Data Input
10	GND	P	Ground
11	Rxin1-	I	-LVDS Differential Data Input
12	Rxin1+	I	+LVDS Differential Data Input
13	GND	P	Ground
14	Rxin2-	I	-LVDS Differential Data Input
15	Rxin2+	I	+LVDS Differential Data Input
16	GND	P	Ground
17	RxCLK-	I	-LVDS Differential Clock Input
18	RxCLK+	I	+LVDS Differential Clock Input
19	GND	P	Ground
20	Rxin3-	I	-LVDS Differential Data Input
21	Rxin3+	I	+LVDS Differential Data Input
22	GND	P	Ground
23	NC	-	No connection
24	NC	-	No connection
25	GND	P	Ground
26	NC	-	No connection
27	NC	-	No connection
28	NC	-	No connection
29	AVDD	P	Power for Analog Circuit

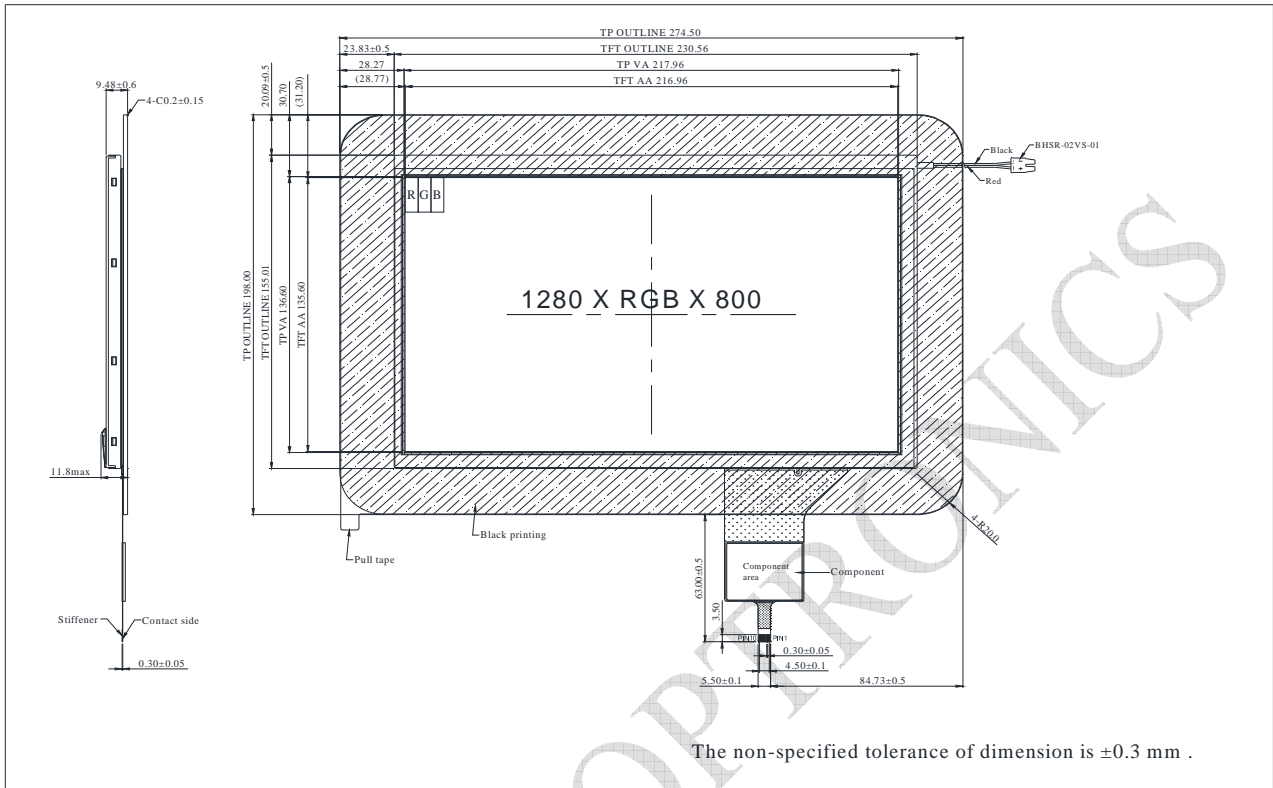
30	GND	P	Ground
31	NC	-	No connection
32	NC	-	No connection
33	NC	-	No connection
34	NC	-	No connection
35	VGL	P	Gate OFF Voltage
36	NC	-	No connection
37	NC	-	No connection
38	VGH	P	Gate ON Voltage
39	NC	-	No connection
40	NC	-	No connection

I: input, O: output, P: Power

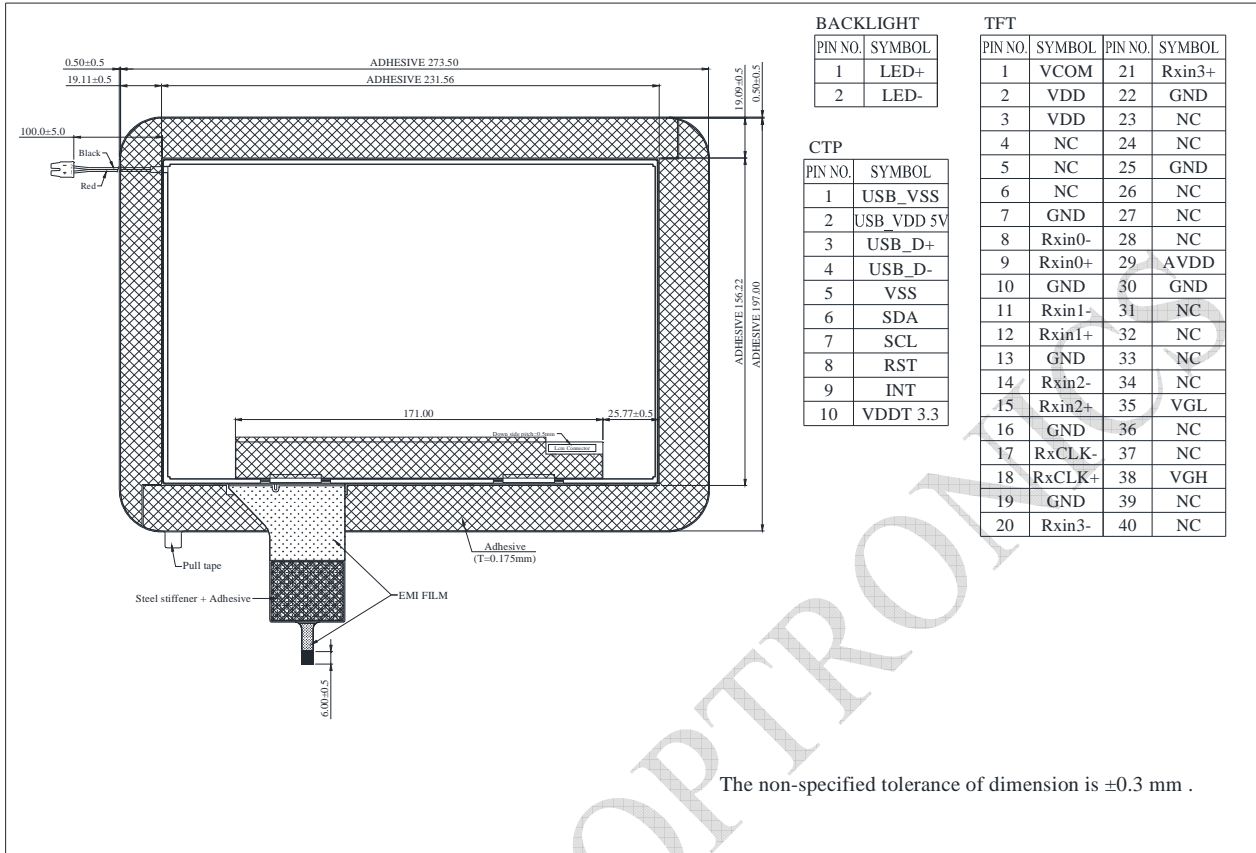
#### PCAP PIN Definition

Pin	Symbol	Function
1	USB_VSS	System ground
2	USB_VDD 5V	Power supply
3	USB_D+	Data +
4	USB_D-	Data -
5	VSS	System ground
6	SDA	I2C data input and output
7	SCL	I2C clock input
8	RST	External Reset, Low is active
9	INT	External interrupt to the host
10	VDDT 3.3	Power supply

# Contour Drawing



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BACKLIGHT

PIN NO.	SYMBOL
1	LED+
2	LED-

TFT

PIN NO.	SYMBOL	PIN NO.	SYMBOL
1	VCOM	21	Rxin3+
2	VDD	22	GND
3	VDD	23	NC
4	NC	24	NC
5	NC	25	GND
6	NC	26	NC
7	GND	27	NC
8	Rxin0-	28	NC
9	Rxin0+	29	AVDD
10	GND	30	GND
11	Rxin1-	31	NC
12	Rxin1+	32	NC
13	GND	33	NC
14	Rxin2-	34	NC
15	Rxin2+	35	VGL
16	GND	36	NC
17	RxCLK-	37	NC
18	RxCLK+	38	VGH
19	GND	39	NC
20	Rxin3-	40	NC

CTP

PIN NO.	SYMBOL
1	USB_VSS
2	USB_VDD 5V
3	USB_D+
4	USB_D-
5	VSS
6	SDA
7	SCL
8	RST
9	INT
10	VDDT 3.3

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

## Absolute Maximum Ratings

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

## Electrical Characteristics

### 1. Typical Operation Conditions

Item	Symbol	Values			Unit
		Min	Typ	Max	
Power voltage	VDD	2.3	2.5	2.7	V
	AVDD	8.0	8.2	8.4	V
	VGH	21.7	22	22.3	V
	VGL	-7.3	-7	-6.7	V
Input signal voltage	VCOM	2.7	3.0	3.3	V
Supply Voltage For Touch Logic	VDDT	2.8	-	3.3	V

### 2. Current Consumption

Item	Symbol	Values			Unit
		Min	Typ	Max	
Current for Driver	IGH	-	705	750	uA
	IGL	-	705	750	uA
	IVDD	-	95	120	mA
	IAVDD	-	45	70	mA