



**RAYSTAR**

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**RFE43BH-AIW-DNB**

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## **SPECIFICATION**

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## General Specifications

- Size: 4.3 inch
- Dot Matrix: 480 x RGB x 272(TFT) dots
- Module dimension: 132.0 x 96.0 x 4.95 mm
- Active area: 95.04 x 53.856 mm
- Dot pitch: 0.066 x 0.198 mm
- LCD type: TFT, Normally White, Transmissive
- View Direction: 12 o'clock
- Gray Scale Inversion Direction: 6 o'clock
- TFT Driver IC: ST7282-G4-1B
- TFT Interface: 24-bit RGB
- Aspect Ratio: 16:9
- Backlight Type: LED, Normally White
- PCAP IC: ILI2511
- PCAP Interface: USB (I2C available)
- PCAP FW Version: V 6. 0. 0. 0. 43.29.0.1
- Touch Panel: PCAP
- Surface: Glare

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

## Interface

### 1. LCM PIN Definition

Pin	Symbol	Function
1	VLED-	Power for LED backlight cathode
2	VLED+	Power for LED backlight anode
3	GND	Power ground
4	VDD	Power voltage
5	R0	Red data (LSB)
6	R1	Red data
7	R2	Red data
8	R3	Red data
9	R4	Red data
10	R5	Red data
11	R6	Red data
12	R7	Red data (MSB)
13	G0	Green data (LSB)
14	G1	Green data
15	G2	Green data
16	G3	Green data
17	G4	Green data
18	G5	Green data
19	G6	Green data
20	G7	Green data (MSB)
21	B0	Blue data (LSB)
22	B1	Blue data
23	B2	Blue data
24	B3	Blue data
25	B4	Blue data
26	B5	Blue data
27	B6	Blue data
28	B7	Blue data (MSB)
29	GND	Power ground

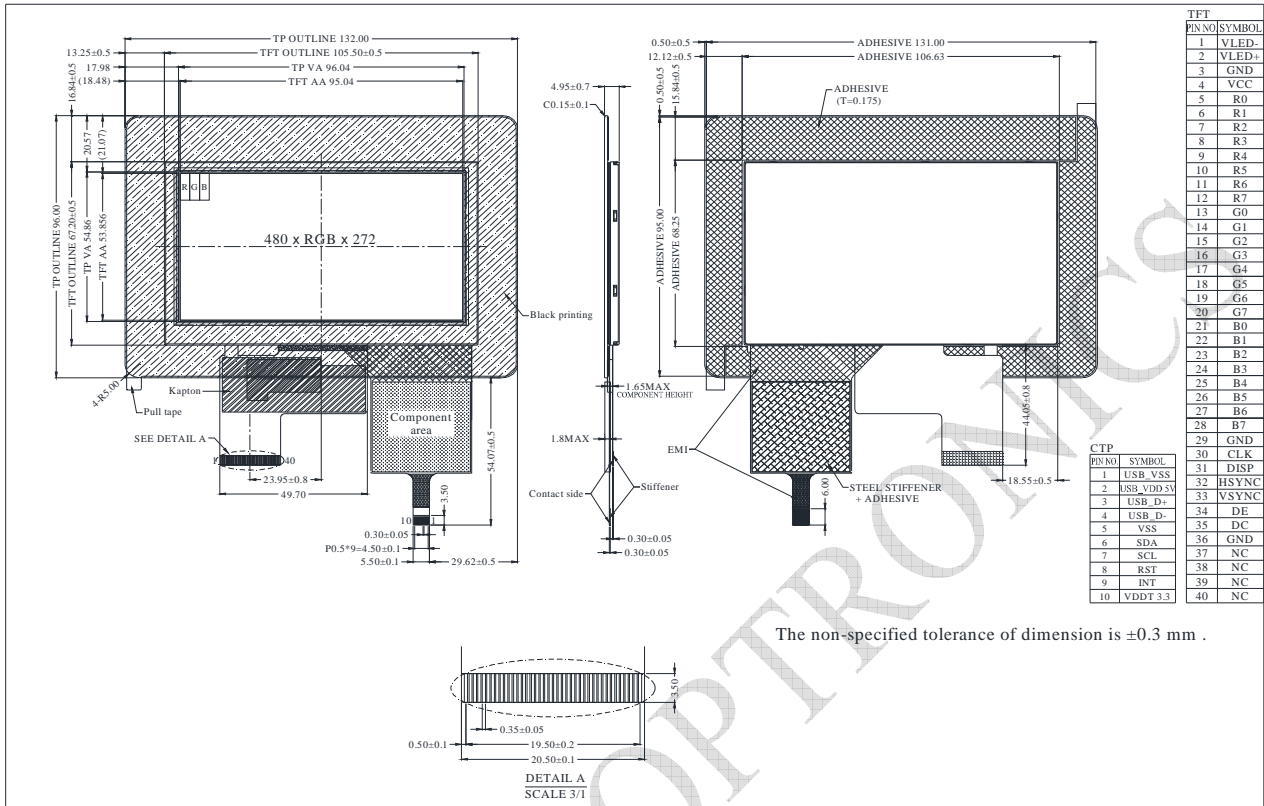
30	CLK	Pixel clock
31	DISP	Display on/off
32	HSYNC	Horizontal sync signal; negative polarity
33	VSYNC	Vertical sync signal; negative polarity
34	DE	Data Enable
35	NC	No connection
36	GND	Power ground
37	NC	No connect
38	NC	No connect
39	NC	No connect
40	NC	No connect

## 2. 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

Note: Interface can support both USB and I2C,USB is main function

# 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

Item	Symbol	Condition	Min	Typ	Max	Unit
Power Supply For Voltage	VDD	—	3.0	3.3	3.6	V
Power Supply For Current	IDD	—	—	22	33	mA
Supply Voltage For Touch Logic (USB Type)	VDDT	—	4.4	5.0	5.5	V

### 2. LED driving conditions

Parameter	Symbol	Min	Typ	Max	Unit
LED current	—	—	20	—	mA
Power Consumption	—	—	640	680	mW
LED voltage	VLED+	30	32	34	V
LED Life Time	—	—	50,000	—	Hr