



RAYSTAR

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RFH70AA8-BYH-LNG

General Specifications

- Size : 7.0 inch
- Dot Matrix : 1024 x RGBx600(TFT) dots
- Module dimension : 169.9(W) x 103.4(H) x 13.88 (D) mm
- Active area : 154.2144 x 85.92 mm
- Pixel pitch : 0.1506 x 0.1432 mm
- LCD type : TFT, Normally Black, Transmissive
- Viewing Angle : 85/85/85/85 (IPS)
- Interface : LVDS
- Aspect Ratio : 16:9
- Driver IC : ST5021 + ST5651
- Backlight Type : LED, Normally White
- PCAP IC : ILI2130
- PCAP Interface : I2C
- PCAP FW Version : 0x07.0x00.0x00.0x00.0x65.0x90.0x00.0x01
- PCAP Resolution : 16384*16384
- Touch Panel : Projected Capacitive Touch Panel, PCAP
- Surface : Glare

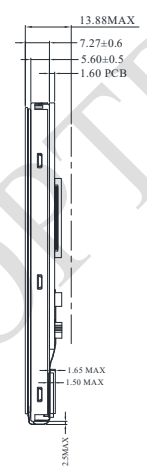
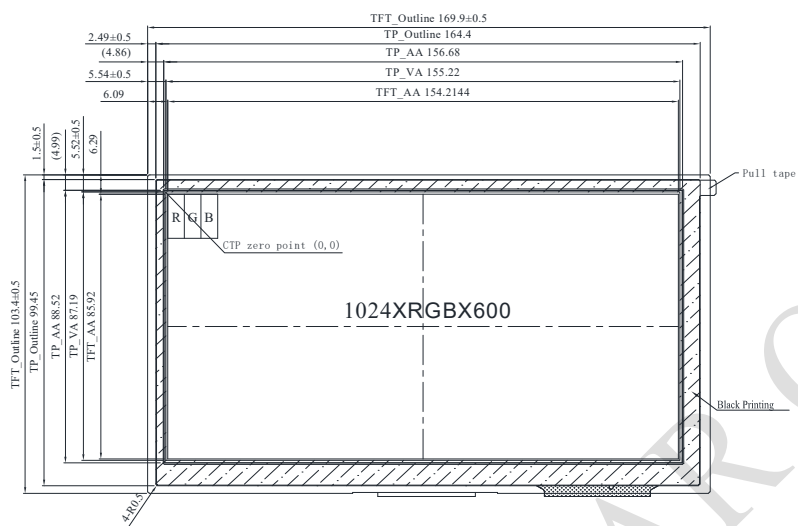
Interface

LCM PIN Definition

Pin No.	Symbol	Function
1	NC	No connection
2	VDD	Power Supply : +3.3V for TFT
3	VDD	Power Supply : +3.3V for TFT
4	SELB	6bit/8bit mode select H : 6bit / L:8bit
5	RESET	Global reset pin
6	STBYB	Standby mode, Normally pulled high STBYB = "1", normal operation STBYB = "0", timing controller, source driver will turn off, all output are High-Z
7	GND	Ground
8	RXIN0-	Negative LVDS differential data input
9	RXIN0+	Positive LVDS differential data input
10	GND	Ground
11	RXIN1-	Negative LVDS differential data input
12	RXIN1+	Positive LVDS differential data input
13	GND	Ground
14	RXIN2-	Negative LVDS differential data input
15	RXIN2+	Positive LVDS differential data input
16	GND	Ground
17	RXCLKIN-	Negative LVDS differential clock input
18	RXCLKIN+	Positive LVDS differential clock input
19	GND	Ground
20	RXIN3-	Negative LVDS differential data input
21	RXIN3+	Positive LVDS differential data input
22	GND	Ground
23	GND	Ground
24	GND	Ground
25	GND	Ground
26	NC	No connection
27	PWM_BL	Backlight control signal
28	L/R	Horizontal inversion

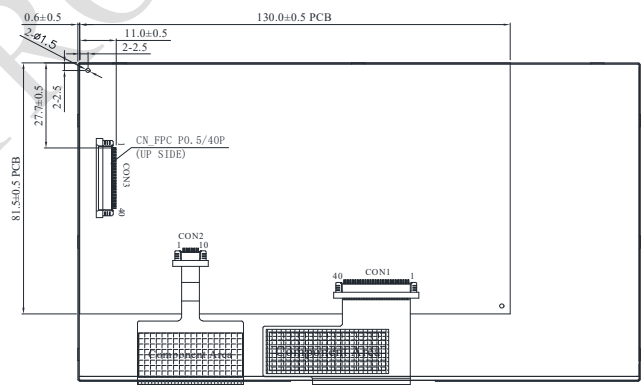
29	U/D	Vertical inversion
30	NC	No connection
31	VLED+	Power Supply : +12V for Backlight driving
32	VLED+	Power Supply : +12V for Backlight driving
33	VLED+	Power Supply : +12V for Backlight driving
34	NC	No connection
35	PCAP_SCL	I2C clock input
36	PCAP_SDA	I2C data input and output
37	PCAP_RST	External Reset, Low is active
38	PCAP_INT	External interrupt to the host
39	NC	No connection
40	NC	No connection

Contour Drawing



CON3

PIN NO	SYMBOL	PIN NO	SYMBOL	PIN NO	SYMBOL	PIN NO	SYMBOL
1	NC	11	RXIN1-	21	RXIN3+	31	VLED+
2	VDD	12	RXIN1+	22	GND	32	VLED+
3	VDD	13	GND	23	GND	33	VLED+
4	SELB	14	RXIN2-	24	GND	34	NC
5	RESET	15	RXIN2+	25	GND	35	CTP_SCL
6	STBYB	16	GND	26	NC	36	CTP_SDA
7	GND	17	RXCLKIN-	27	LED PWM	37	CTP_RST
8	RXIN0-	18	RXCLKIN+	28	L/R	38	CTP_INT
9	RXIN0+	19	GND	29	U/D	39	NC
10	GND	20	RXIN3-	30	NC	40	NC



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

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	Min	Typ	Max	Unit
Supply Voltage For VLED+	VLED	11.5	12	12.5	V
Supply Current For VLED+	ILED	-	470	710	mA
Supply Voltage For LCM	VDD	3.0	3.3	3.6	V
Supply Current For LCM	IDD	-	120	180	mA
Supply Voltage For PCAP	VDDT	3.15	3.3	3.45	V
Supply Current For PCAP	IDDT	-	70	100	mA

Backlight conditions :

Parameter	Symbol	Min.	Typ.	Max.	Unit
PWM Control Level (LED_PWM)	High Level	-	3.3	-	V
	Low Level	-	0	-	V
PWM Control Duty Ratio	-	1	-	100	%
PWM Control Frequency	-	-	10K	-	Hz
LED Life Time	-	-	50,000	-	Hr