TFT DISPLAY SPECIFICATION

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

RFH700A7-AIW-LNN

General Specifications

- Size: 7.0 inch
- Dot Matrix: 1024 x RGBx600(TFT) dots
- Module dimension: 164.8(W) x 99.8(H) x 5.65(D) mm
- Active area: 154.2144 x 85.92 mm
- Dot pitch: 0.1506 x 0.1432 mm
- LCD type: TFT, Normally White, Transmissive
- View Direction: 12 o'clock
- Gray Scale Inversion Direction: 6 o'clock
- Aspect Ratio: 16:9
- Control IC: NA
- Driver IC: EK79001HE + EK73215BCGA
- Backlight Type: LED, Normally White
- Touch Panel: Without Touch Panel
- Interface: LVDS
- Surface: Anti-Glare

RAYSTAR OPTRONICS

Interface

LCM PIN Definition

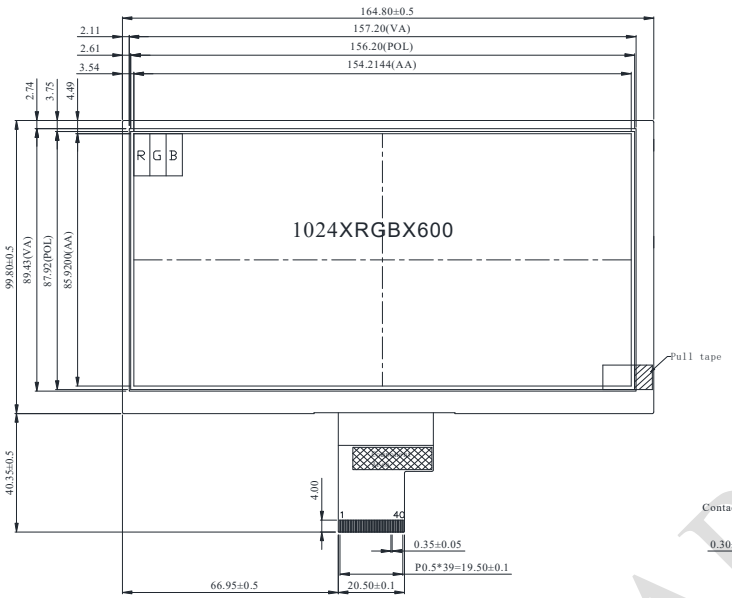
Pin No.	Symbol	I/O	Function
1	VCOM	P	Common Voltage
2	VDD	P	Digital circuit
3	VDD	P	Digital circuit
4	NC	---	No connection
5	Reset	I	Global reset pin
6	STBYB	I	Standby mode, Normally pulled high STBYB = “1”, normal operation STBYB = “0”, timing controller, source driver will turn off, all output are High-Z
7	GND	P	Ground
8	RXIN0-	I	Negative LVDS differential data input
9	RXIN0+	I	Positive LVDS differential data input
10	GND	P	Ground
11	RXIN1-	I	Negative LVDS differential data input
12	RXIN1+	I	Positive LVDS differential data input
13	GND	P	Ground
14	RXIN2-	I	Negative LVDS differential data input
15	RXIN2+	I	Positive LVDS differential data input
16	GND	P	Ground
17	RXCLKIN-	I	Negative LVDS differential clock input
18	RXCLKIN+	I	Positive LVDS differential clock input
19	GND	P	Ground
20	RXIN3-	I	Negative LVDS differential data input
21	RXIN3+	I	Positive LVDS differential data input
22	GND	P	Ground
23	NC	---	No connection
24	NC	---	No connection
25	GND	P	Ground

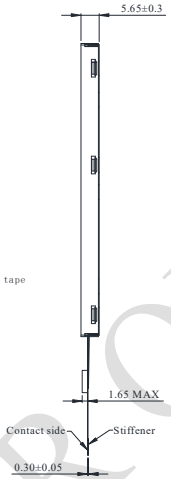
RAYSTAR OPTRONICS

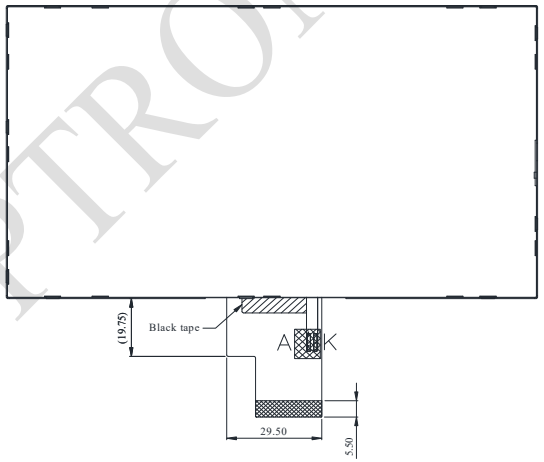
26	NC	---	No connection
27	DIMO	O	Backlight CABC controller signal output
28	SELB	I	6bit/8bit mode select H:6bit / L:8bit
29	AVDD	P	Power for Analog Circuit
30	GND	P	Ground
31	LED-	P	LED Cathode
32	LED-	P	LED Cathode
33	L/R	I	Horizontal inversion
34	U/D	I	Vertical inversion
35	VGL	P	Negative power for TFT
36	GND	P	Ground
37	GND	P	Ground
38	VGH	P	Positive power for TFT
39	LED+	P	LED Anode
40	LED+	P	LED Anode

RAYSTAR OPTRONICS

Contour Drawing







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

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

RAYSTAR OPTRONICS

Absolute Maximum Ratings

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

Electrical Characteristics

Typical Operation Conditions

Item	Symbol	Values			Unit
		Min.	Typ.	Max.	
Power voltage	DVDD	3.0	3.3	3.6	V
	AVDD	9.4	9.6	9.8	V
	VGH	17	18	19	V
	VGL	-6.6	-6.0	-5.4	V
Input signal voltage	VCOM	3.1	3.3	3.6	V
Input logic high voltage	VIH	0.7 DVDD	-	DVDD	V
Input logic low voltage	VIL	0	-	0.3 DVDD	V

Current Consumption

Item	Symbol	Values			Unit
		Min.	Typ.	Max.	
Current for Driver	IGH	-	0.2	1.0	mA
	IGL	-	0.2	1.0	mA
	IDVDD	-	4.0	10	mA
	IAVDD	-	20	50	mA

RAYSTAR OPTRONICS