



**RAYSTAR**

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## **RFU700W-AYW-LNN**

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### **SPECIFICATION**

#### **General Specifications**

- Size: 7.0 inch
- Dot Matrix: 800 x RGB x 1280 dots
- Module dimension: 164.61 x 106.3 x 6.0 mm
- Active area: 150.72 x 94.2 mm
- Dot pitch: 0.11775 x 0.11775 mm
- LCD type: TFT, Normally Black, Transmissive
- Viewing Angle(CR>10): 85/85/85/85
- Aspect Ratio: 16:9
- Backlight Type: LED ,Normally White
- Interface: LVDS
- Pixel Configuration: R.G.B. Vertical Stripe
- With /Without TP: Without TP
- Surface: Anti-Glare

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

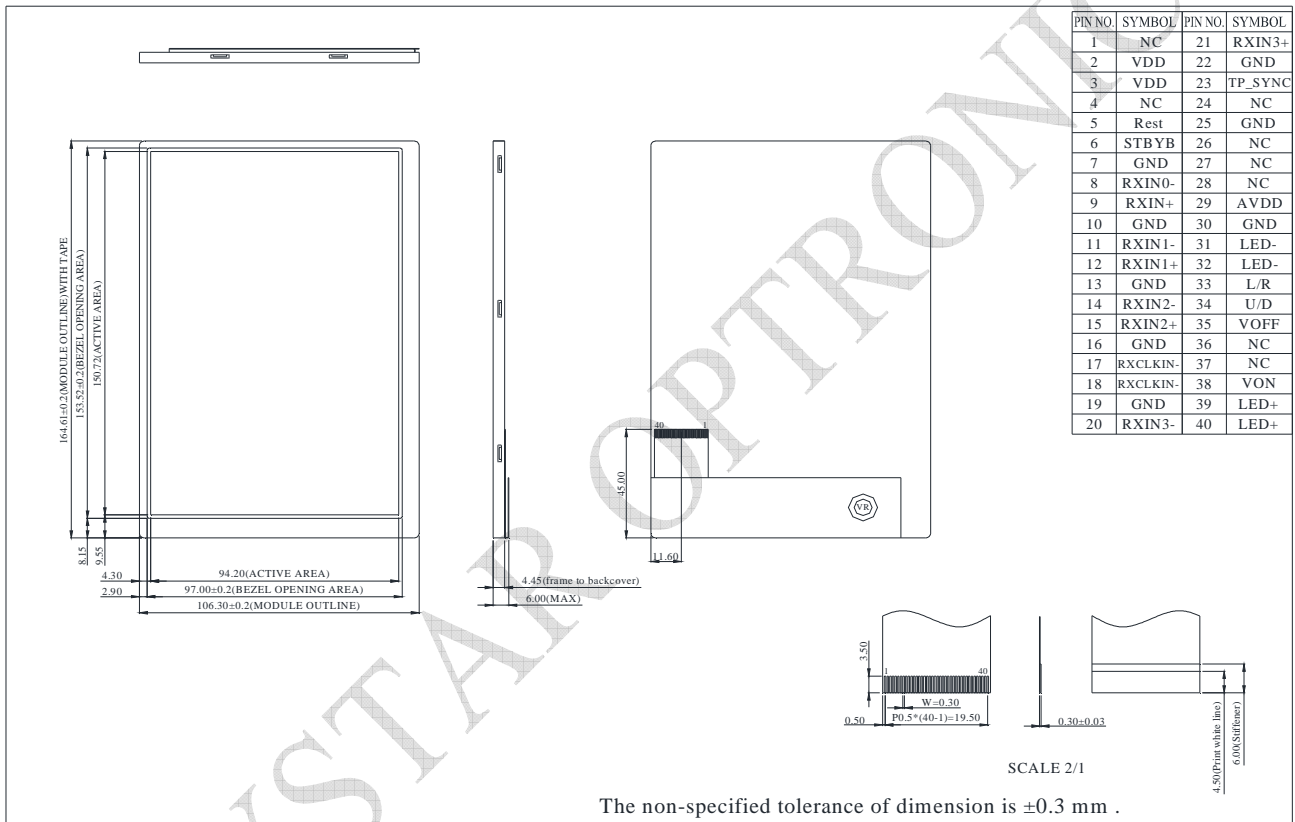
#### **Interface**

##### **1. LCM PIN Definition: CN (Interface signal)**

Pin No.	Symbol	I/O	Function
1	NC	-	Not connect (CPT Test only)
2	VDD	P	Digital power
3	VDD	P	Digital power
4	NC	-	Not connect (CPT Test only)
5	REST	I	Global reset. Keep 3.3V+/-0.3V during operation. Normally pull high(High=3.3V+/-0.3V, Low=GND). (R=10KΩ , C=1uf)
6	STBYB	I	Standby mode control. Normally pull high. When STBYB=H, Normal operation. (Default) When STBYB=L, TCON and source driver are off and all output are High-Z. (High=3.3V+/-0.3V, Low=GND)
7	GND	P	Ground
8	RXIN0-	I	Negative LVDS differential data inputs
9	RXIN0+	I	Positive LVDS differential data inputs
10	GND	P	Ground
11	RXIN1-	I	Negative LVDS differential data inputs
12	RXIN1+	I	Positive LVDS differential data inputs
13	GND	P	Ground
14	RXIN2-	I	Negative LVDS differential data inputs
15	RXIN2+	I	Positive LVDS differential data inputs
16	GND	P	Ground
17	RXCLKIN-	I	Negative LVDS differential clock inputs
18	RXCLKIN+	I	Positive LVDS differential clock inputs
19	GND	P	Ground
20	RXIN3-	I	Negative LVDS differential data inputs
21	RXIN3+	I	Positive LVDS differential data inputs
22	GND	P	Ground
23	TP_SYNC	O	Sync signal for touch panel, keep floating if not used.
24	NC	-	Not connect (CPT Test only)
25	GND	P	Ground
26	NC	-	Not connect (CPT Test only)
27	NC	-	Not connect (CPT Test only)
28	NC	-	Not connect (CPT Test only)
29	AVDD	P	Power for Analog Circuit(AVDD = 12.080V±0.2V)
30	GND	P	Ground
31	LED-	P	LED Cathode
32	LED-	P	LED Cathode
33	L/R	-	Left/right selection (High= 1.8V±0.1V)Normally pull high
34	U/D	-	Up/down selection (High= 1.8V±0.1V)Normally pull high

35	VOFF	P	Negative power for TFT(VOFF = -6.0V±0.6V)
36	NC	-	Not connect (CPT Test only)
37	NC	-	Not connect (CPT Test only)
38	VON	P	Positive power for TFT(VON = -24.0V±1V)
39	LED+	P	LED ANODE
40	LED+	P	LED ANODE

## 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. TFT LCD

Ta=25°C

Item	Symbol	Min	Typ	Max	Unit
Digital Power Supply Voltage For LCD	DVDD	3	3.3	3.6	V
Logic Input Voltage (LVDS:IN+,IN-)	VCM	1	1.2	1.4	V
	VID	200	-	600	mV
	VTH	-	-	100	mV
	VTL	-100	-	-	mV
1 Data time	UI	-	tclk*1/7	-	Tclk
LVDS clock to data skew	tskew	-	-	300	Ps
input data eye width	teyew	1082	-	-	Ps
Analog Power Supply Voltage	AVDD	11.880	12.080	12.280	V
Gate On Power Supply Voltage	VON	22.5	23.4	24.5	V
Gate Off Power Supply Voltage	VOFF	-6.6	-6.0	-5.4	V
Common Power Supply Voltage	VCOM	3.45	4.15	4.85	V
Logic Input Voltage	VIH	0.8* <sub>DVDD</sub>	-	<sub>DVDD</sub>	V
	VIL	GND	-	0.2* <sub>DVDD</sub>	V

### 2. TFT-LCD Current Consumption

Item	Symbol	Min	Typ	Max	Unit
Rush Current	Irush	-	-	2	A
Gate on power current	IVON	-	0.5	5	mA
Gate off power current	IVOFF	-	0.5	5	mA
Digital power current	IVDD	-	40	80	mA
Analog power current	IAVDD	-	90	150	mA