



WINSTAR Display Co.,Ltd.  
華凌光電股份有限公司



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### SPECIFICATION

**MODULE NO.: WF70A9TWAGDNN0#**

### General Specifications

Item	Dimension	Unit
Size	7.0	inch
Dot Matrix	800 x RGB x 480(TFT)	dots
Module dimension	165.8 (W) x 106.61 (H) x 6.5(D)	mm
Active area	152.40 x 91.44	mm
Pixel pitch	0.1905 x 0.1905	mm
LCD type	TFT, Normally Black, Transmissive	
View Direction	80/80/80/80	
TFT Interface	24-bit RGB	
TFT Driver IC	HX8249-A + HX8678-C or Equivalent	
Aspect Ratio	15:9	
Backlight Type	LED, Normally White	
Touch Panel	Without Touch Panel	
Surface	Anti-Glare	

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

## Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	TOP	-30	—	+80	°C
Storage Temperature	TST	-30	—	+80	°C

## Electrical Characteristics

### Operating conditions

Item	Symbol	Min	Typ	Max	Unit
Supply Voltage	Vcc	2.7	3.3	3.6	V
Current of power supply	IDD	—	101	150	mA

# Interface

## 1.LCM PIN Definition

Pin	Symbol	Function									
1-4	NC	No connection									
5	GND	Power Ground									
6	NC	No connection									
7	VCC	Power voltage									
8	NC (MODE)	Input timing mode selection. Effective when FCS=1.									
		<table border="1"> <thead> <tr> <th>MODE</th> <th>Function</th> <th>Note</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>DE only</td> <td>-</td> </tr> <tr> <td>1</td> <td>HS+VS</td> <td>Default</td> </tr> </tbody> </table>	MODE	Function	Note	0	DE only	-	1	HS+VS	Default
		MODE	Function	Note							
0	DE only	-									
1	HS+VS	Default									
9	DE	Data enable signal for TTL mode.									
10	VS	Vertical sync input									
11	HS	Horizontal sync input									
12	B7	Blue data(MSB)									
13	B6	Blue data									
14	B5	Blue data									
15	B4	Blue data									
16	B3	Blue data									
17	B2	Blue data									
18	B1	Blue data									
19	B0	Blue data(LSB)									
20	G7	Green data(MSB)									
21	G6	Green data									
22	G5	Green data									
23	G4	Green data									
24	G3	Green data									
25	G2	Green data									
26	G1	Green data									
27	G0	Green data(LSB)									
28	R7	Red data(MSB)									
29	R6	Red data									
30	R5	Red data									
31	R4	Red data									

32	R3	Red data									
33	R2	Red data									
34	R1	Red data									
35	R0	Red data (LSB)									
36	GND	Power Ground									
37	DCLK	Sample clock									
38	GND	Power Ground									
39	NC (L/R)	Horizontal shift direction (source output) selection. Effective when FCS=1.									
		<table border="1"> <thead> <tr><th>L/R</th><th>Source output sequence and data order</th><th>Note</th></tr> </thead> <tbody> <tr><td>1</td><td>SOUT1→SOUT2→ ...→ SOUT2400</td><td>Default</td></tr> <tr><td>0</td><td>SOUT2400→SOUT2399→ ...→ SOUT1</td><td>-</td></tr> </tbody> </table>	L/R	Source output sequence and data order	Note	1	SOUT1→SOUT2→ ...→ SOUT2400	Default	0	SOUT2400→SOUT2399→ ...→ SOUT1	-
		L/R	Source output sequence and data order	Note							
1	SOUT1→SOUT2→ ...→ SOUT2400	Default									
0	SOUT2400→SOUT2399→ ...→ SOUT1	-									
40	NC (U/D)	Vertical shift direction (gate output) selection. Effective when FCS=1.									
		<table border="1"> <thead> <tr><th>U/D</th><th>Function</th><th>Note</th></tr> </thead> <tbody> <tr><td>1</td><td>Top→bottom</td><td>Default</td></tr> <tr><td>0</td><td>Bottom→top</td><td>-</td></tr> </tbody> </table>	U/D	Function	Note	1	Top→bottom	Default	0	Bottom→top	-
		U/D	Function	Note							
1	Top→bottom	Default									
0	Bottom→top	-									
41	NC	No connection									
42	NC	No connection									
43	NC	No connection									
44	RESET	Reset pin. The chip is in reset state when RESETB=0.									
45	NC	No connection									
46	NC	No connection									
47	DITHB	STBYB Standby mode setting pin. The chip is in standby mode when S TBYB=0.									
48	GND	Power Ground									
49	NC	No connection									
50	NC	No connection									

## 2.Backlight PIN Definition

Pin	Symbol	Description
1	VLED+	Red, LED_ Anode
2	VLED-	Black, LED_ Cathode

# Contour Drawing

