



RAYSTAR

曜凌光電股份有限公司

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RFJ02830A-ADW-DNN

SPECIFICATION

General Specifications

- Size: 2.83 inch
- Dot Matrix: 240 x RGB x 320(TFT) dots
- Module dimension: 53.1(W) x 71.1(H) x 5.35 (D) mm
- Active area: 43.2 x 57.6 mm
- Dot pitch: 0.18 x 0.18 mm
- LCD type: TFT, Normally White, Transflective
- TFT Driver IC: HX8367-A or equivalent
- TFT Interface: MCU/SPI/RGB
- View Direction: 3 o'clock
- Gray Scale Inversion Direction: 9 o'clock
- Aspect Ratio: 3:4
- Backlight Type: LED, Normally White
- Touch Panel: Without Touch Panel
- Surface: Glare

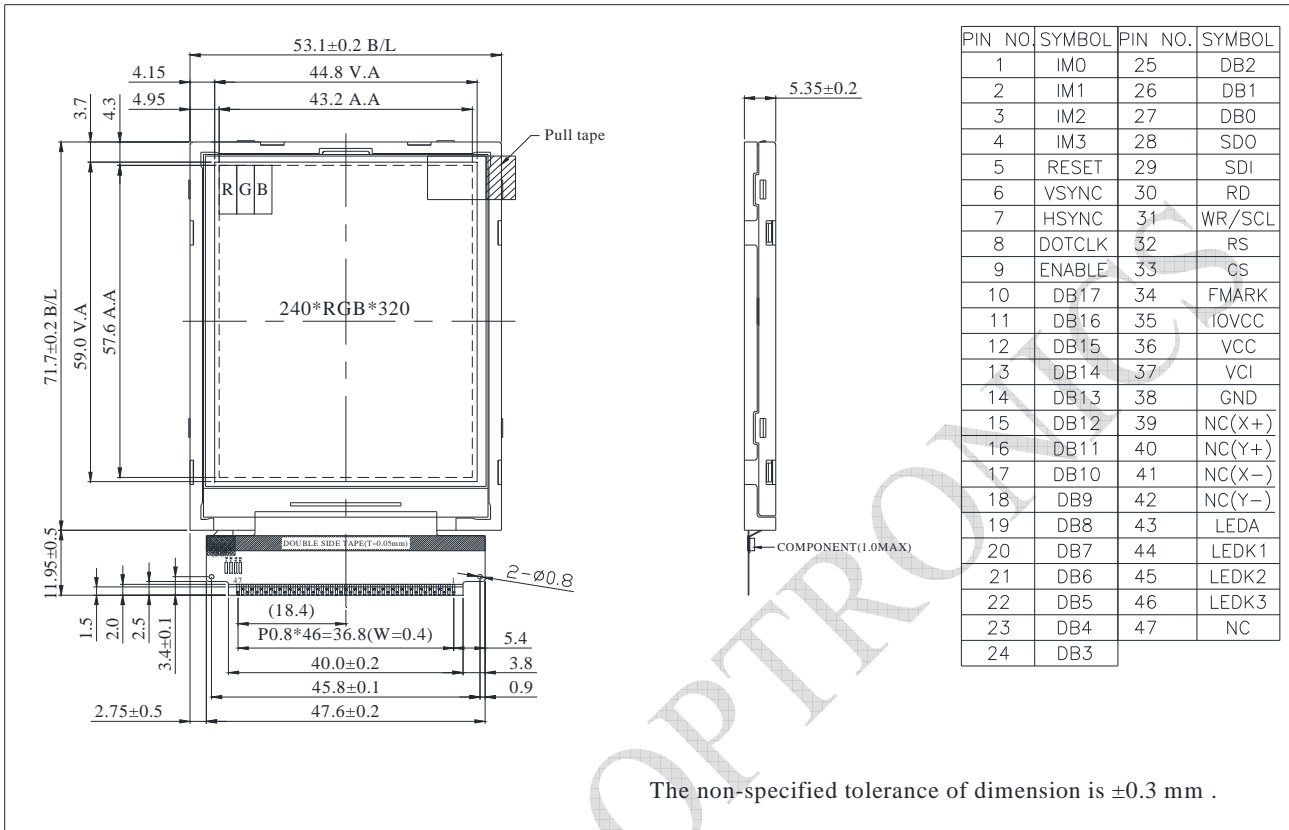
*Color tone slight changed by temperature and driving voltage.

Interface

1. LCM PIN Definition

NO	Symbol	Function	I/O																																																								
1	IM0	System interface select.																																																									
2	IM1																																																										
3	IM2																																																										
4	IM3			<table border="1"> <thead> <tr> <th>IM3</th> <th>IM2</th> <th>IM1</th> <th>IM0</th> <th>Interface</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>8080 MCU 16-bits Parallel type I</td> </tr> <tr> <td>0</td> <td>0</td> <td>0</td> <td>1</td> <td>8080 MCU 8-bits Parallel type I</td> </tr> <tr> <td>0</td> <td>0</td> <td>1</td> <td>0</td> <td>8080 MCU 16-bits Parallel type II</td> </tr> <tr> <td>0</td> <td>0</td> <td>1</td> <td>1</td> <td>8080 MCU 8-bits Parallel type II</td> </tr> <tr> <td>0</td> <td>1</td> <td>0</td> <td>ID</td> <td>3-wire Serial interface</td> </tr> <tr> <td>0</td> <td>1</td> <td>1</td> <td>-</td> <td>4-wire Serial interface</td> </tr> <tr> <td>1</td> <td>0</td> <td>0</td> <td>0</td> <td>8080 MCU 18-bits Parallel type I</td> </tr> <tr> <td>1</td> <td>0</td> <td>0</td> <td>1</td> <td>8080 MCU 9-bits Parallel type I</td> </tr> <tr> <td>1</td> <td>0</td> <td>1</td> <td>0</td> <td>8080 MCU 18-bits Parallel type II</td> </tr> <tr> <td>1</td> <td>0</td> <td>1</td> <td>1</td> <td>8080 MCU 9-bits Parallel type II</td> </tr> </tbody> </table>	IM3	IM2	IM1	IM0	Interface	0	0	0	0	8080 MCU 16-bits Parallel type I	0	0	0	1	8080 MCU 8-bits Parallel type I	0	0	1	0	8080 MCU 16-bits Parallel type II	0	0	1	1	8080 MCU 8-bits Parallel type II	0	1	0	ID	3-wire Serial interface	0	1	1	-	4-wire Serial interface	1	0	0	0	8080 MCU 18-bits Parallel type I	1	0	0	1	8080 MCU 9-bits Parallel type I	1	0	1	0	8080 MCU 18-bits Parallel type II	1	0	1	1	8080 MCU 9-bits Parallel type II
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5	RESET	Reset pin. Setting either pin low initializes the LSI. Must be reset after power is supplied.	I																																																								
6	VSYNC	Vertical synchronizing signal in RGB interface.	I																																																								
7	HSYNC	Horizontal synchronizing signal in RGB interface	I																																																								
8	DOTCLK	Data enable signal in RGB interface	I																																																								
9	ENABLE	A data ENABLE signal in RGB I/F mode	I																																																								
10-27	DB17-DB0	18-bit bi-directional data bus.	I/O																																																								
28	SDO	Serial data output pin in serial bus system interface	O																																																								
29	SDI	Serial data input pin in serial bus system interface. The data is inputted on the rising edge of the SCL signal.	I																																																								
30	RD	Read enable pin I80 parallel bus system interface.	I																																																								
31	WR/SCL	(WR)Write enable pin I80 parallel bus system interface.(SCL)server as serial data clock in serial bus system interface.	I																																																								
32	RS	Command / parameter or display data selection pin.	I																																																								
33	CS	Chip select signal.Low: chip can be accessed;High: chip cannot be accessed	I																																																								
34	FMARK	Tearing effect output.	O																																																								
35	IOVCC	Digital IO Pad power supply.	P																																																								
36	VCC	Analog power supply	P																																																								
37	VCI	Analog power supply.	P																																																								
38	GND	Power ground.	P																																																								
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43	LEDA	LED light, anode.																																																									
44	LEDK1	LED light, cathode																																																									
45	LEDK2	LED light, cathode																																																									
46	LEDK3	LED light, cathode																																																									
47	NC	No connection																																																									

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	Min	Typ	Max	Unit
Supply voltage for logic	VCI	2.5	2.8	3.3	V
I/O power supply	IOVCC	1.65	1.8	3.3	V
Input current	I _{dd}	—	6.7	10.1	mA
Input voltage 'H' level	V _{IH}	0.7IOVCC	—	IOVCC	V
Input voltage 'L' level	V _{IL}	GND	—	0.3IOVCC	V
Output voltage 'H' level	V _{OH}	0.8IOVCC	—	IOVCC	V
Output voltage 'L' level	V _{OL}	GND	—	0.2IOVCC	V

2. LED driving conditions

Parameter	Symbol	Min	Typ	Max	Unit
LED current		-	480	-	mA
LED voltage	V _{BL+}	2.7	3.0	3.4	V
LED Life Time		50,000	-	-	Hr