RAYSTAR

RAYSTAR Optronics, Inc.
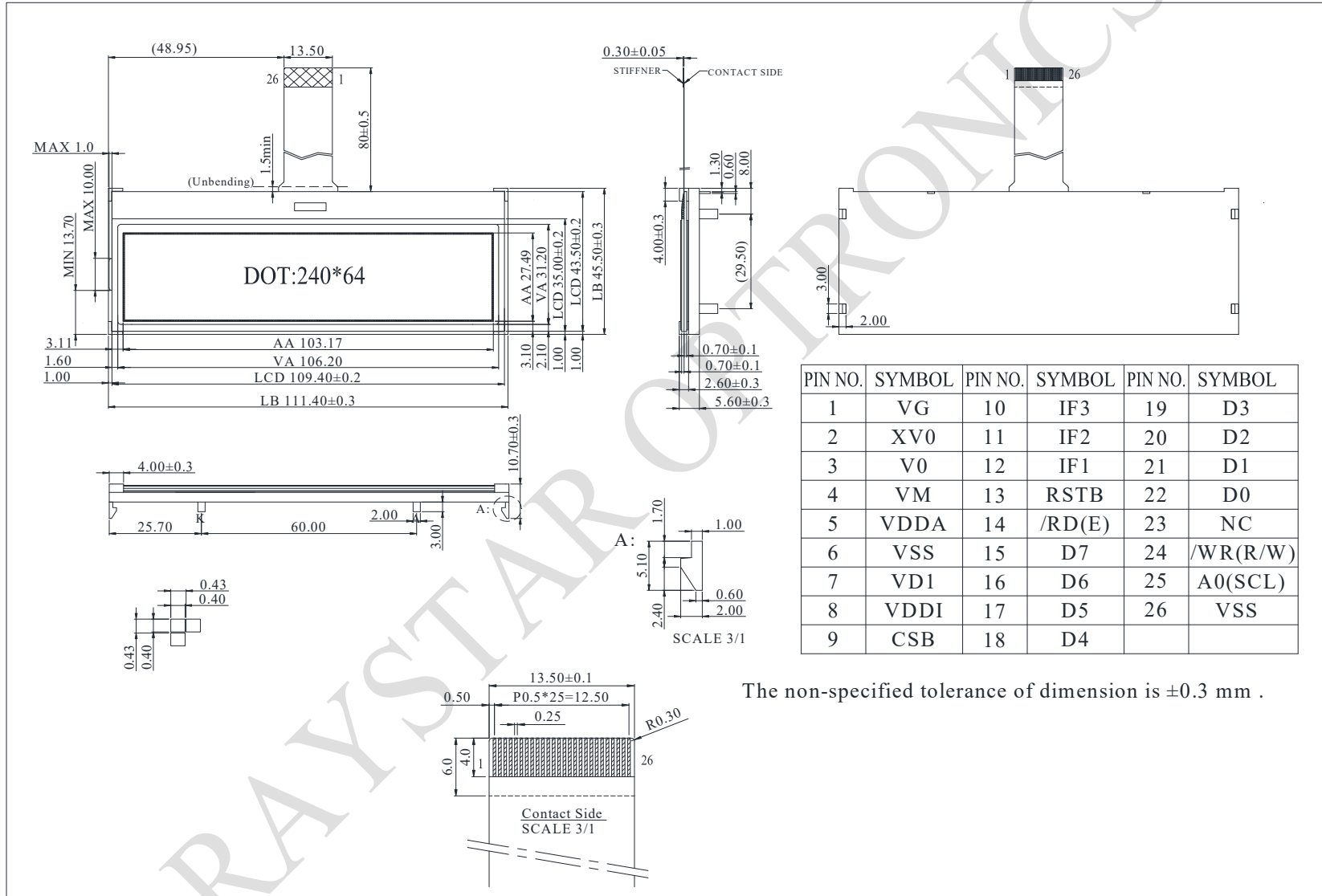曜凌光電股份有限公司

RX24064C

【General Specification

- Module dimension: 111.4 x 45.5 x 5.6 mm

- View area: 106.2 x 31.2 mm

- Active area: 103.17 x 27.49 mm

- Number of dots: 240 x 64

- Dot size: 0.40 x 0.40 mm

- Dot pitch: 0.43 x 0.43 mm

- Duty: 1/64 ,

- Backlight Type: LED

- IC: ST7586S

- Interface: 68 series /80 series/3-Line/4-Line

Interface Pin Function

Pin No.	Symbol	I/O	Description
1	VG	P	VG is the power of SEG-drivers.
2	XV0	P	Negative operating voltage of COM-drivers.
3	V0	P	Positive operating voltage of COM-drivers. V0O is the output of the positive Vop generator. V0I is the positive Vop supply of LCD drivers. V0S is the sensor of the positive Vop generator. V0O, V0I & V0S should be separated on ITO and be connected together by FPC.
4	VM	P	VM is the non-select voltage level of COM-drivers.
5	VDDA	P	Analog power for internal booster.
6	VSS	P	Ground
7	VD1	P	VD1I is the power source of digital circuits.
8	VDDI	P	Power of interface I/O circuit.
9	CSB	Input	Chip select input pin. CSB="L": This chip is selected and the MPU interface is active.
10	IF3	Input	These pins select interface operation mode.<table><tr><td>IF3</td><td>IF2</td><td>IF1</td><td>MPU interface type</td></tr><tr><td>H</td><td>H</td><td>L</td><td>80 series 8-bit parallel</td></tr><tr><td>H</td><td>L</td><td>L</td><td>68 series 8-bit parallel</td></tr><tr><td>L</td><td>H</td><td>H</td><td>8-bit serial (4-Line)</td></tr><tr><td>L</td><td>H</td><td>L</td><td>9-bit serial (3-Line)</td></tr></table>
11	IF2		
12	IF1		
13	RSTB	Input	Reset input pin. When RSTB is "L", internal initialization procedure is executed.
14	/RD(E)	Input	Read / Write execution control pin. (This pin is only used in parallel interface)

15	D7		
16	D6		
17	D5		The bi-directional data bus of the MPU interface. When CSB is "H", they are high impedance.
18	D4	I/O	If using serial interface:
19	D3		D0 is the SDA signal in 4-Line & 3-Line interface.
20	D2		D1 is the A0 signal in 4-Line interface
21	D1		
22	D0		
23	NC		No connection
24	/WR(R/W)	Input	Read / Write execution control pin. (This pin is only used in parallel interface)
25	A0(SCL)	Input	The function of this pin is different in parallel and serial interface. In parallel interface: A0 is register selection input.
26	VSS	P	Ground

Contour Drawing

DOT:240*64

PIN NO.	SYMBOL	PIN NO.	SYMBOL	PIN NO.	SYMBOL
1	VG	10	IF3	19	D3
2	XV0	11	IF2	20	D2
3	V0	12	IF1	21	D1
4	VM	13	RSTB	22	D0
5	VDDA	14	/RD(E)	23	NC
6	VSS	15	D7	24	/WR(R/W)
7	VD1	16	D6	25	A0(SCL)
8	VDDI	17	D5	26	VSS
9	CSB	18	D4		

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

Contact Side
SCALE 3/1

Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	T_{OP}	-20	—	+70	℃
Storage Temperature	T_{ST}	-30	—	+80	℃
Digital Power Supply Voltage	VDDI	-0.3	—	3.6	V
Analog Power supply voltage	VDDA	-0.3	—	3.6	V
LCD Power supply voltage	V0-XV0	-0.3	—	19	V
LCD Power supply voltage	VG	-0.3	—	5.5	V

Electrical Characteristics

Item	Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage For Logic	V_{DD}-V_{SS}	—	3.0	3.3	3.4	V
Supply Voltage For LCM	V0-XV0	Ta=-20℃	—	—	—	V
		Ta=25℃	9.8	10.0	10.2	V
		Ta=+70℃	—	—	—	V
Input High Volt.	V_{IH}	—	$0.7V_{DD}$	—	V_{DD}	V
Input Low Volt.	V_{IL}	—	Vss	—	$0.3\ V_{DD}$	V
Output High Volt.	V_{OH}	—	$0.8\ V_{DD}$	—	V_{DD}	V
Output Low Volt.	V_{OL}	—	Vss	—	$0.2V_{DD}$	V
Supply Current(No include LED Backlight)	I_{DD}	V_{DD}=3.3V	0.1	1.5	3.0	mA