



RAYSTAR

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](mailto:salescontact@raystar-optronics.com) | [www.raystar-optronics.com](http://www.raystar-optronics.com)

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## RG12864D

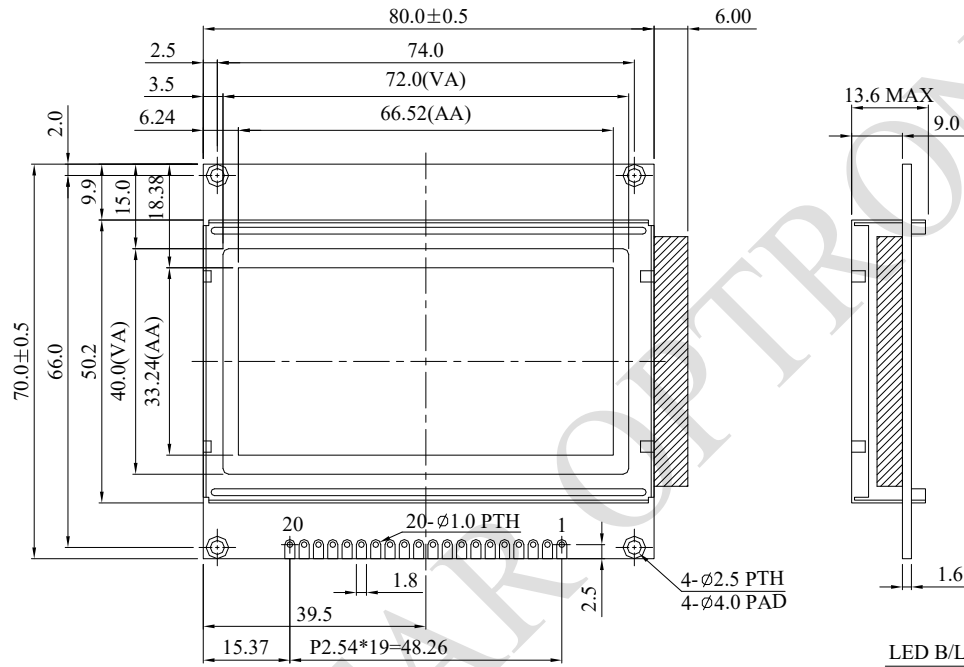
### General Specification

- Module dimension: 80.0 x 70.0 x 13.6 (max.) mm
- View area: 72.0 x 40.0 mm
- Active area: 66.52 x 33.24 mm
- Number of dots: 128 x 64
- Dot size: 0.48 x 0.48 mm
- Dot pitch: 0.52 x 0.52 mm
- Duty: 1/64
- Backlight Type: LED
- IC:NT7107, NT7108
- Interface:68 series

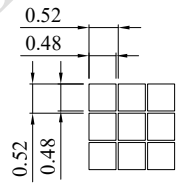
## Interface Pin Function

Pin No.	Symbol	Level	Description
1	V <sub>SS</sub>	0V	Ground
2	V <sub>DD</sub>	5.0V	Supply voltage for logic
3	V <sub>O</sub>	(Variable)	Operating voltage for LCD
4	D/I	H/L	H: Data , L: Instruction
5	R/ W	H/L	H: Read (Module --> MPU) L: Write(MPU --> Module)
6	E	H	Enable signal
7	DB0	H/L	Data bus line
8	DB1	H/L	Data bus line
9	DB2	H/L	Data bus line
10	DB3	H/L	Data bus line
11	DB4	H/L	Data bus line
12	DB5	H/L	Data bus line
13	DB6	H/L	Data bus line
14	DB7	H/L	Data bus line
15	CS1	H	Chip Select for IC1
16	CS2	H	Chip Select for IC2
17	/RES	L	Reset signal
18	V <sub>out</sub>	—	Negative Voltage output
19	A	—	Power supply for B/L +
20	K	—	Power supply for B/L -

# Contour Drawing



PIN NO.	SYMBOL
1	Vss
2	Vdd
3	Vo
4	D/I
5	R/W
6	E
7	DB0
8	DB1
9	DB2
10	DB3
11	DB4
12	DB5
13	DB6
14	DB7
15	CS1
16	CS2
17	RES
18	Vout
19	A
20	K



DOT SIZE  
SCALE 10/1

## Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	$T_{OP}$	-20	—	+70	°C
Storage Temperature	$T_{ST}$	-30	—	+80	°C
Supply Voltage For Logic	$V_{DD-VSS}$	-0.3	—	7.0	V
Driver Supply Voltage	$V_{LCD}$	$V_{EE}-0.3$	—	$V_{DD}+0.3$	V

## Electrical Characteristics

ITEM	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Voltage For Logic	$V_{DD-VSS}$	—	4.5	5.0	5.5	V
Supply Voltage For LCD	$V_{DD-V_O}$	$T_a=-20^{\circ}C$	—	—	10.5	V
		$T_a=25^{\circ}C$	8.4	8.7	9.0	V
*Note		$T_a=70^{\circ}C$	7.6	—	—	V
Input High Volt.	$V_{IH}$	—	$0.7V_{DD}$	—	$V_{DD}$	V
Input Low Volt.	$V_{IL}$	—	0	—	0.8	V
Output High Volt.	$V_{OH}$	—	2.4	—	—	V
Output Low Volt.	$V_{OL}$	—	—	—	0.4	V
Supply Current	$I_{DD}$	$V_{DD}=5.0V$	—	3.0	—	mA