



RAYSTAR

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## RG12864B

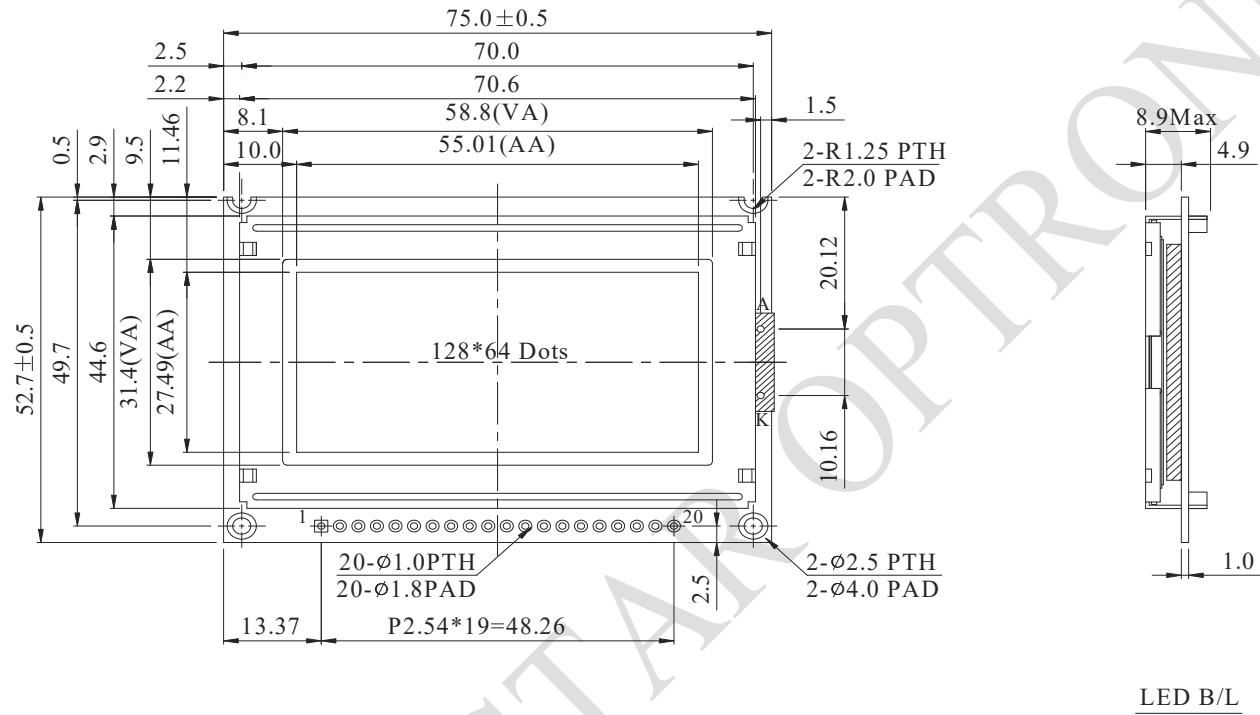
### General Specification

- Module dimension: 75.0 x 52.7 x 8.9 (max.) mm
- View area: 58.8 x 31.4mm
- Active area: 55.01 x 27.49 mm
- Number of dots: 128 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:NT7107, NT7108
- Interface:68 series

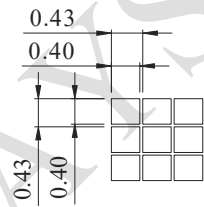
## Interface Pin Function

Pin No.	Symbol	Level	Description
1	VDD	5.0V	Supply voltage for logic
2	V <sub>ss</sub>	0V	Ground
3	V <sub>o</sub>	(Variable)	Contrast Adjustment
4	DB0	H/L	Data bus line
5	DB1	H/L	Data bus line
6	DB2	H/L	Data bus line
7	DB3	H/L	Data bus line
8	DB4	H/L	Data bus line
9	DB5	H/L	Data bus line
10	DB6	H/L	Data bus line
11	DB7	H/L	Data bus line
12	CS1	L	Select Column 1~ Column 64
13	CS2	L	Select Column 65~ Column 128
14	/RST	L	Reset signal
15	R/W	H/L	H: Read (Module --> MPU) L: Write(MPU --> Module)
16	D/I	H/L	H: Data , L : Instruction
17	E	H	Enable signal
18	V <sub>ee</sub>	—	Negative Voltage output
19	A	—	Power Supply for LED backlight ( + )
20	K	—	Power Supply for LED backlight ( - )

# Contour Drawing



PIN NOS	SYMBOL
1	V <sub>dd</sub>
2	V <sub>ss</sub>
3	V <sub>o</sub>
4	DB0
5	DB1
6	DB2
7	DB3
8	DB4
9	DB5
10	DB6
11	DB7
12	CS1
13	CS2
14	$\overline{\text{RST}}$
15	$\overline{\text{R/W}}$
16	$\overline{\text{D/I}}$
17	E
18	V <sub>ee</sub>
19	A
20	K



DOT SIZE  
SCALE 10/1

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

## 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	$V_{DD}-V_{SS}$	-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	$V_{DD}-V_{SS}$	—	4.5	5.0	5.5	V
Supply Voltage For LCD	$V_{DD}-V_O$	$T_a=-20^{\circ}\text{C}$	—	—	9.6	V
		$T_a=25^{\circ}\text{C}$	7.8	8.0	8.2	V
		$T_a=70^{\circ}\text{C}$	7.6	—	—	V
Input High Volt.	$V_{IH}$	—	$0.7 V_{DD}$	—	$V_{DD}$	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	$I_{DD}$	$V_{DD}=5.0\text{V}$	3.0	4.0	5.0	mA