



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.

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## RG160128B

### General Specification

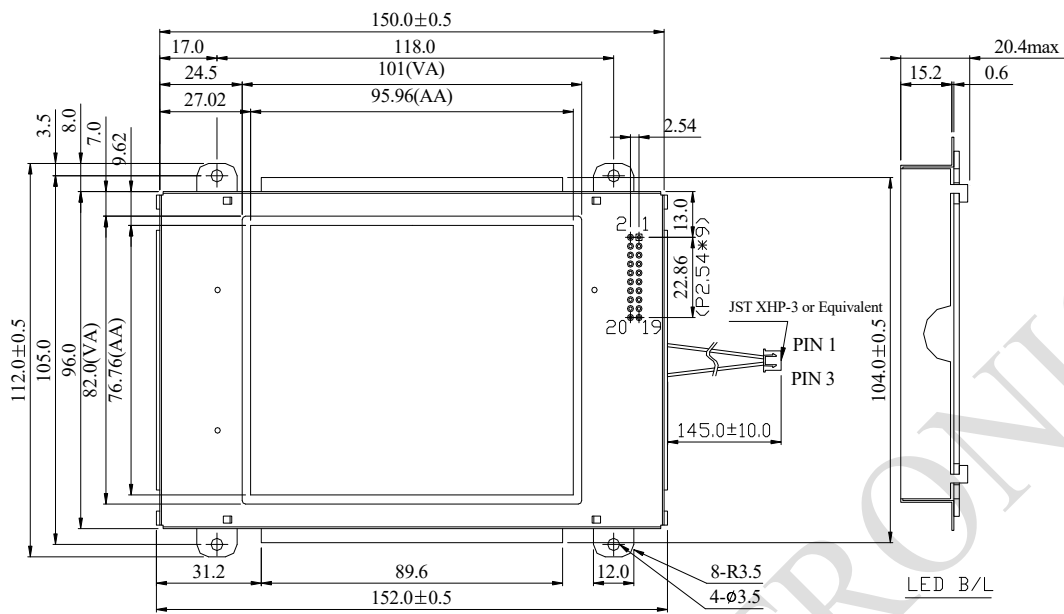
The Features is described as follow:

- Module dimension: 150.0 x 112.0 x 20.4 (max.) mm
- View area: 101.0 x 82.0 mm
- Active area: 95.96 x 76.76 mm
- Number of dots: 160 x 128
- Dot size: 0.56 x 0.56 mm
- Dot pitch: 0.60 x 0.60 mm
- Duty: 1/128
- Backlight Type: LED
- IC: RA6963
- Interface: 80 series

## Interface Pin Function

Pin No.	Symbol	Level	Description
1	FG	—	Frame ground
2	Vss	—	Ground
3	Vdd	—	Power supply for logic
4	Vo	—	contrast adjustment
5	Vee	—	Negative Voltage Output
6	/WR	L	Data write. Write data into RA6963when WR = L
7	/RD	L	Data read. Read data from RA6963when RD = L
8	/CE	L	Chip enable the controller RA6963
9	C/D	H / L	WR=L , C/D=H : Command Write C/D=L: Data write RD=L , C/D=H : Status Read C/D=L: Data read
10	/HALT	L	Clock operating stop signal
11	/RESET	H / L	Reset signal
12	DB0	H / L	Data bus line
13	DB1	H / L	Data bus line
14	DB2	H / L	Data bus line
15	DB3	H / L	Data bus line
16	DB4	H / L	Data bus line
17	DB5	H / L	Data bus line
18	DB6	H / L	Data bus line
19	DB7	H / L	Data bus line
20	NC		No connection

# Contour Drawing



PIN NO	SYMBOL
1	FG
2	V <sub>SS</sub>
3	V <sub>DD</sub>
4	V <sub>O</sub>
5	V <sub>EE</sub>
6	WR
7	RD
8	CE
9	C/D
10	HALT
11	RESET
12	DB0
13	DB1
14	DB2
15	DB3
16	DB4
17	DB5
18	DB6
19	DB7
20	NC

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

## Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	$T_{OP}$	-20	—	+70	°C
Storage Temperature	$T_{ST}$	-30	—	+80	°C
Input Voltage	$V_{IN}$	-0.3	—	$V_{DD}+0.3$	V
Supply Voltage For Logic	$V_{DD}-V_{SS}$	-0.3	—	+7.0	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	$V_{DD}-V_0$	$T_a=-20^{\circ}\text{C}$	—	—	22.1	V
		$T_a=25^{\circ}\text{C}$	18.4	18.95	19.5	V
		$T_a=70^{\circ}\text{C}$	16.1	—	—	V
Input High Volt.	$V_{IH}$	—	$0.8V_{DD}$	—	$V_{DD}$	V
Input Low Volt.	$V_{IL}$	—	0	—	$0.15 V_{DD}$	V
Output High Volt.	$V_{OH}$	—	$V_{DD}-0.3$	—	$V_{DD}$	V
Output Low Volt.	$V_{OL}$	—	0	—	0.3	V
Supply Current	$I_{DD}$	—	—	42	—	mA