LCD / LCM SPECIFICATION

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RC1602D

General Specification

The features is described as follow:

- Module Dimension: 85.0 x 30.0 x 13.5 (max.) mm
- View Area: 66.0 x 16.0 mm
- Active Area: 56.20 x 11.5 mm
- Number of Characters: 16 characters x 2 Lines
- Dot Size: 0.55 x 0.65 mm
- Dot Pitch: 0.60 x 0.70 mm
- Character Size: 2.95 x 5.55 mm
- Character Pitch: 3.55 x 5.95 mm
- Duty: 1/16
- Backlight Type: LED
- IC:ST7066U
- Interface:68 series

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Interface Pin Function

Pin No.	Symbol	Level	Description
1	V_{DD}	5.0V	Supply Voltage for logic
2	V_{SS}	0V	Ground
3	VO	(Variable)	Operating voltage for LCD
4	RS	H/L	H: DATA, L: Instruction code
5	R/W	H/L	H: Read (Module --> MPU) L: Write(MPU --> Module)
6	E	H,H→L	Chip 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

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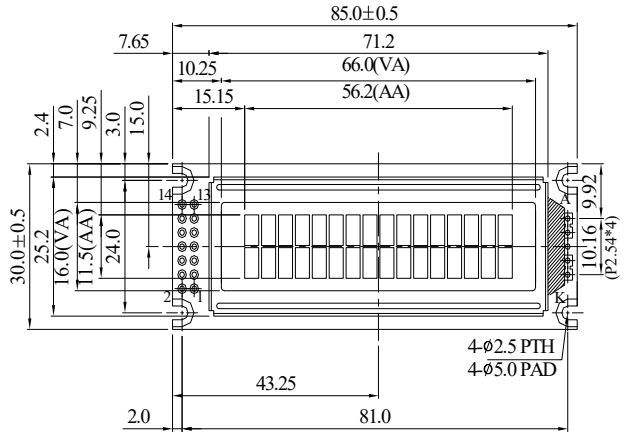
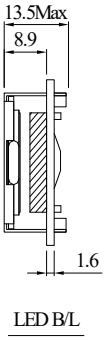
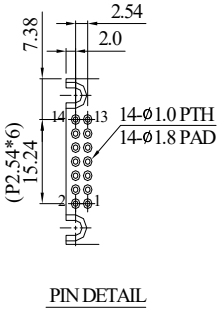
Contour Drawing



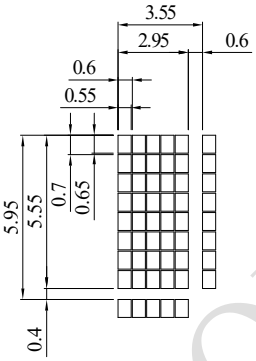


LED B/L

PIN NO.	SYMBOL
1	Vdd
2	Vss
3	Vo
4	RS
5	R/$\overline{W}$
6	E
7	DB0
8	DB1
9	DB2
10	DB3
11	DB4
12	DB5
13	DB6
14	DB7



PIN DETAIL



DOT SIZE
SCALE 5/1

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

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Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	T_{OP}	-20	—	+70	℃
Storage Temperature	T_{ST}	-30	—	+80	℃
Input Voltage	V_I	V_{SS}	—	V_{DD}	V
Supply Voltage For Logic	V_{DD}-V_{SS}	-0.3	—	7	V
Supply Voltage For LCD	V_{DD}-V_o	-0.3	—	13	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	Ta=-20℃	—	—	5.2	V
		Ta=25℃	3.6	3.7	3.8	V
		Ta=70℃	3.2	—	—	V
Input High Volt	V_{IH}	—	0.7 V_{DD}	—	V_{DD}	V
Input Low Volt	V_{IL}	—	Vss	—	0.6	V
Output High Volt	V_{OH}	—	3.9	—	V_{DD}	V
Output Low Volt	V_{OL}	—	0	—	0.4	V
Supply Current	I_{DD}	V_{DD}=5.0V	1.0	1.2	1.5	mA

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