

PART NUMBER		REV.
LCM-X02002RXX/A		
REV.	E.C.N. NUMBER AND REVISION COMMENTS	DATE

CHARACTER DETAIL

Technical drawing of a character detail. The drawing shows a main rectangular area with a grid of 10x10 squares. To the right of the grid is a vertical strip of 10 squares. Dimensions and tolerances are indicated with arrows and text:

- Top horizontal dimension: 3.70 [0.146]
- Second horizontal dimension from top: 3.20 [0.126]
- Third horizontal dimension from top: 0.60 [0.024]
- Right vertical dimension: 0.40 [0.016]
- Right vertical dimension (total): 0.65 [0.026]
- Left vertical dimension: 5.55 [0.219]
- Bottom horizontal dimension: 0.05 [0.002]

[illegible]

1.60 [0.063]

37.00±0.50
[1.457±0.020]

1.60 [0.063]

A - A

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5.55mm CHARACTER HEIGHT, 5 x 8 DOT MATRIX, 20 x 2 LCD MODULE, 1/16 DUTY, 1/5 BIAS.		DRAWN BY: JC	CHECKED BY: APPROVED BY: DATE: 10.27.06 PAGE: 1 OF 2 SCALE: N/A

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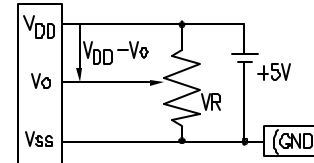
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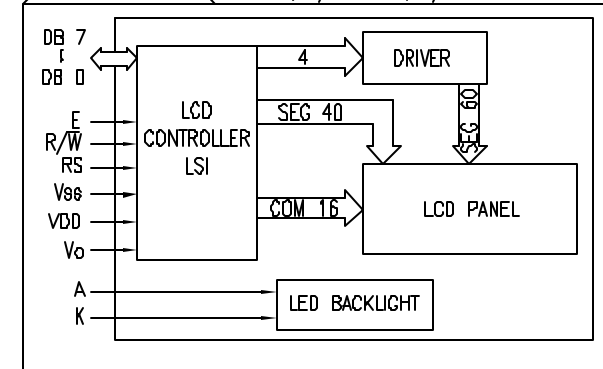
PIN CONFIGURATION

PIN NO.	SYMBOL	LEVEL	FUNCTION	
1	V _{SS}	—	POWER SUPPLY	GND (0V)
2	V _{DD}	—		5V
3	V _O	—		FOR LCD DRIVE
4	RS	H/L	REGISTER SELECT SIGNAL H: DATA INPUT L: INSTRUCTION INPUT	
5	R/W	H/L	H: DATA READ (MODULE-->MPU) L: DATA WRITE (MODULE<--MPU)	
6	E	H,H->L	ENABLE	
7~14	DB0~DB7	H/L	DATA BUS—SOFTWARE SELECTABLE 4 OR 8 BIT MODE.	
15	A		ANODE LED BKLT	
16	K		CATHODE LED BKLT	

V_{DD}-V_O: LCD DRIVING VOLTAGE
VR: 10KΩ-20KΩ



BLOCK DIAGRAM 20 x 2, 1/16 DUTY, 1/5 BIAS



ELECTRICAL CHARACTERISTICS

V_{DD}=4.5V to 5.5V, T_A=25°C

ITEM	SYMBOL	CONDITION	STANDARD VALUE			UNIT
			MIN.	TYP.	MAX.	
SUPPLY VOLTAGE FOR LOGIC	V _{DD} -V _{SS}	—	—	5.0	—	V
SUPPLY CURRENT FOR LOGIC	I _{DD}	V _{DD} =5V	—	2.0	3.0	mA
INPUT VOLTAGE	HIGH LOW	V _{IH}	—	2.2	—	V _{DD}
		V _{IL}	—	0	—	0.6
OUTPUT VOLTAGE	HIGH LOW	V _{OH}	—	2.4	—	V
		V _{OL}	—	—	0.4	V
*LED BACKLIGHT	VOLTAGE	V _F	I _F =240mA	—	4.2	4.6
	CURRENT	I _F	—	—	240	480
	POWER CONSUMPTION	P _D	—	—	1000	—
	LUMINOUS	L	I _F =240mA	100	150	—
	COLOR	—	—	—	—	nm

ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	TEST CONDITION	STANDARD VALUE		UNIT
			MIN	MAX	
SUPPLY VOLTAGE FOR LOGIC	V _{DD} -V _{SS}	T _a =25°C	4.7	5.3	V
SUPPLY VOLTAGE FOR LCD DRIVE	V _{DD} -V _O	—	4.2@50°C	4.8@0°C	V
INPUT VOLTAGE	V _I	T _a =25°C	V _{SS}	V _{DD}	V
OPERATING TEMPERATURE	T _{opr}	LCM-S	0	50	°C
		LCM-H	-20	70	°C
STORAGE TEMPERATURE	T _{stg}	LCM-S	-20	70	°C
		LCM-H	-30	85	°C

*ONLY APPLIES TO MODULES WITH BACKLIGHT

*UNLESS OTHERWISE SPECIFIED TOLERANCE IS ±0.25mm (±0.010")

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RELIABILITY NOTE

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JC			PAGE: 2 OF 2
			SCALE: N/A