REV.	E.C.N. NUMBER AND REVISION COMMENTS	DATE
A	E.C.N. #10BRDR. & REDRAWN.	10-2-98

P/N PREFIX/SUFFIX TABLE

LCM-X		DXX	DESCRIPTION
STANDARD	S	SR	STN, REFLECTIVE
		SF	STN, TRANSFLECTIVE(W/ BACKLIGHT)
HIGH TEMP.	H	TR	TN, REFLECTIVE
		TF	TN, TRANSFLECTIVE(W/ BACKLIGHT)

CAUTION: STATIC SENSITIVE DEVICE
FOLLOW PROPER E.S.D. HANDLING PROCEDURES
WHEN WORKING WITH THIS PART.

CHARACTER DETAIL

3.55 [0.1398]
2.96 [0.1165]
0.56 [0.0220]
0.59 [0.0232]
0.66 [0.0260]
0.04 [0.0016]
5.56 [0.2189]
5.94 [0.2339]
0.38 [0.0150]
0.04 [0.0016]

TYPE	DIM.	A	B
WITH BACKLIGHT		12.7	8.7
NO BACKLIGHT		8.8	4.8

40.55 [1.596]
8.00 [0.315]
38.10 [1.500]
P2.54 [0.100]x13
14-Ø1.00 [Ø0.039]
(PAD Ø1.80 [Ø0.071])
Ø2.50 [Ø0.098]
(4 PLS.)
10.16 [0.400]
(P2.54 x 4)
2.00 [0.079]
2.50 [0.098]
(2 PLS.)
31.00 [1.220]
16.00 [0.630]
V.A.
36.00±0.50
[1.417±0.020]
25.20 [0.992]
11.50 [0.453]
17.70 [0.697]
Ø1.00 [Ø0.039]
(5 PLS.)
56.21 [2.213]
66.00 [2.598] V.A.
2.50 [0.099]
(2 PLS.)
71.20 [2.803]
75.00 [2.953]
1.50 [0.059]
80.00±0.50 [3.150±0.020]

'A'
1.60 [0.063]
'B'

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

REV.	PART NUMBER		
A	LCM-X01602DXX/A		

5.56mm CHARACTER HEIGHT, 5 x 8 DOT MATRIX,
16 x 2 LCD MODULE, 1/16 DUTY, 1/5 BIAS.

DRAWN BY: SA/BC | CHECKED BY: | APPROVED BY: | DATE: 7-27-98
PAGE: 1 OF 2
SCALE: N/A

	PART NUMBER	REV.
	LCM-X01602DXX/A	A

REV.	E.C.N. NUMBER AND REVISION COMMENTS	DATE
	SEE PAGE #1./	

PIN CONFIGURATION

PIN NO.	SYMBOL	LEVEL	FUNCTION	
1	Vss	–	POWER SUPPLY	GND (0V)
2	V_{DD}	–		5V
3	Vo	–		FOR LCD DRIVE
4	RS	H/L	REGISTER SELECT SIGNAL H: DATA INPUT L: INSTRUCTION INPUT	
5	R/W̄	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 BACKLIGHT
16	K	–	CATHODE	LED BACKLIGHT

$V_{DD}-V_o$: LCD DRIVING VOLTAGE
VR: 10KΩ–20KΩ
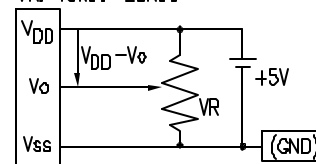
BLOCK DIAGRAM 16 x 2, 1/16 DUTY, 1/5 BIAS
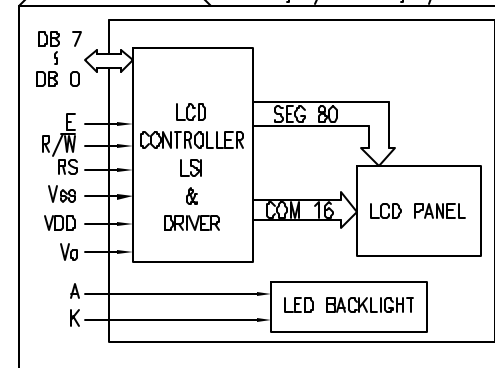
ELECTRICAL CHARACTERISTICS V_{DD}=4.7V to 5.3V, T_A=25°C

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	V_{IH}	–	2.2	–	V_{DD}	V
	LOW	V_{IL}	–	0	–	0.6	V
OUTPUT VOLTAGE	HIGH	V_{OH}	–	2.4	–	–	V
	LOW	V_{OL}	–	–	–	0.4	V
*LED BACKLIGHT	VOLTAGE	Vf	If=160mA	–	4.2	4.6	V
	CURRENT	If	–	–	160	–	mA
	POWER CUNSUMPTION	PD	–	–	656	–	mW
	LUMINOUS	L	If=160mA	70	–	–	cd/m²
	COLOR	–	–	–	–	–	nm

*ONLY APPLIES TO MODULES WITH BACKLIGHT

ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	TEST CONDITION	STANDARD VALUE		UNIT
			MIN	MAX	
SUPPLY VOLTAGE FOR LOGIC	$V_{DD}-V_{SS}$	Ta=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	Ta=25°C	Vss	V_{DD}	V
OPERATING TEMPERATURE	Topr	LCM-S	0	50	°C
		LCM-H	-20	70	°C
STORAGE TEMPERATURE	Tstg	LCM-S	-20	70	°C
		LCM-H	-30	85	°C

REV.	PART NUMBER
A	LCM-X01602DXX/A

5.56mm CHARACTER HEIGHT, 5 x 8 DOT MATRIX,
16 x 2 LCD MODULE, 1/16 DUTY, 1/5 BIAS.

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			PAGE: 2 OF 2
SA/BC			SCALE: N/A