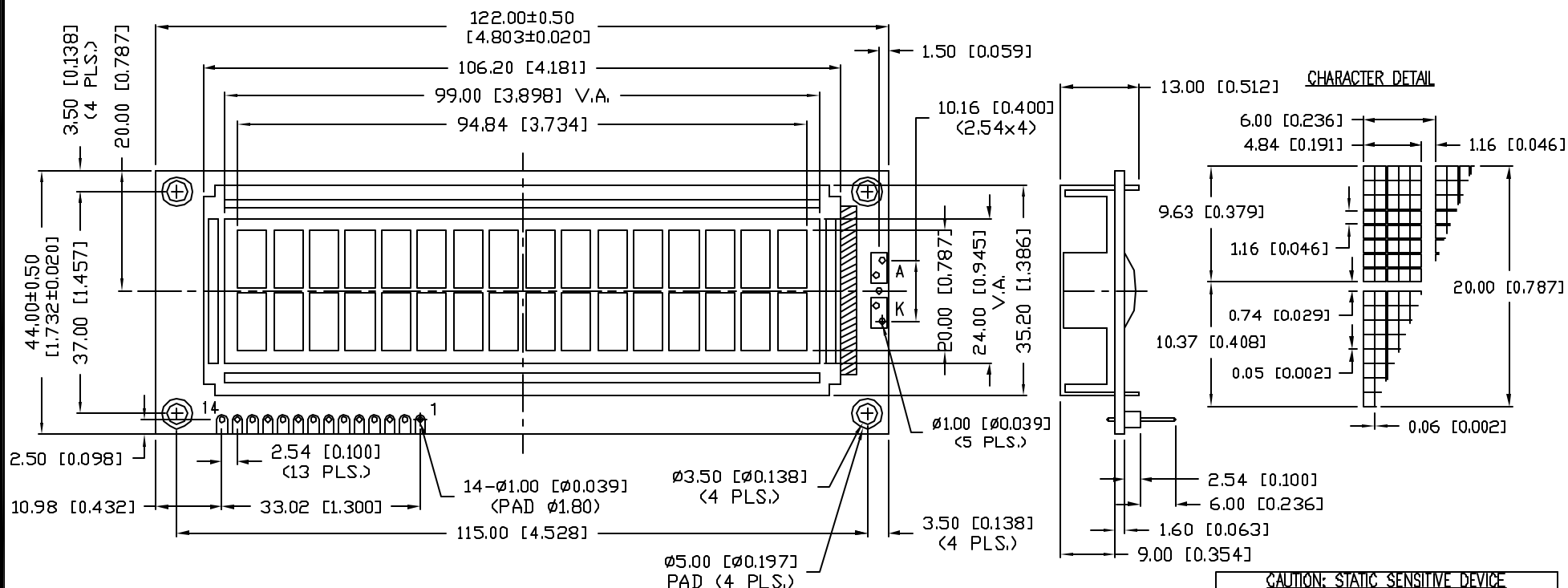



PART NUMBER		REV.
LCM-H01602DSF/DPNY		A
REV.	E.C.N. NUMBER AND REVISION COMMENTS	DATE
A	E.C.N. #11148.	02.13.07



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

*UNLESS OTHERWISE SPECIFIED TOLERANCES PER DECIMAL PRECISION ARE: X=±1 (±0.039), X.X=±0.5 (±0.020), X.XX=±0.25 (±0.010), X.XXX=±0.127 (±0.005). LEAD SIZE=±0.05 (±0.002), LEAD LENGTH=±0.75 (±0.030). MIN.=+0.00
-0.00 DECIMAL PRECISION MAX.=+0.00
-0.00 DECIMAL PRECISION

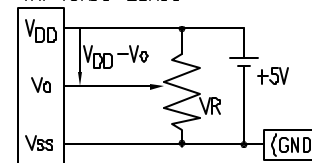
REV. A	PART NUMBER LCM-H01602DSF/DPNY	<p>CONFIDENTIAL INFORMATION</p> <p>THE INFORMATION CONTAINED IN THIS DOCUMENT IS THE PROPERTY OF LUMEX INC. EXCEPT AS SPECIFICALLY AUTHORIZED IN WRITING BY LUMEX INC., THE HOLDER OF THIS DOCUMENT SHALL KEEP ALL INFORMATION CONTAINED HEREIN CONFIDENTIAL AND SHALL PROTECT SAME IN WHOLE OR IN PART FROM DISCLOSURE AND DISSEMINATION TO ALL THIRD PARTIES.</p> <p>RELIABILITY NOTE</p> <p>OUR MANY YEARS OF EXPERIENCE DATA ACCUMULATION INDICATE THAT SOLDER HEAT IS A MAJOR CAUSE OF EARLY AND FUTURE FAILURE. PLEASE PAY ATTENTION TO YOUR SOLDERING PROCESS.</p>	 <p>290 E. HELEN ROAD PALATINE, IL 60067-6976 PHONE: +1.847.359.2790 US WEB: www.lumex.com TW WEB: www.lumex.com.tw</p>
<p>9.63mm CHARACTER HEIGHT, 16 x 2 CHARACTERS, 5 x 8 DOT MATRIX LCD MODULE, STN, TRANSFLECTIVE, 1/16 DUTY, 1/5 BIAS, WHITE LED BACKLIGHT, 12:00 VIEW.</p>		<p>DRAWN BY: JC</p>	<p>CHECKED BY:</p> <p>APPROVED BY:</p> <p>DATE: 12.27.05 PAGE: 1 OF 2 SCALE: N/A</p>

PIN CONFIGURATION

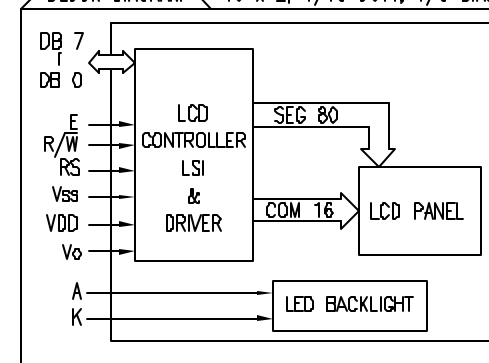
PIN NO.	SYMBOL	LEVEL	FUNCTION
1	V _{SS}	—	POWER SUPPLY GND (0V) 5V FOR LCD DRIVE
2	V _{DD}	—	
3	V _O	—	
4	RS	H/L	REGISTER SELECT SIGNAL H: DATA INPUT L: INSTRUCTION INPUT
5	R/W	H/L	H: DATA READ (MODULE-->MPU) L: DATA WRITE (MODULE<--MPU)
6	E	H,H->L	ENABLE
7~14	DB0~DB7	H/L	DATA BUS—SOFTWARE SELECTABLE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



R1=R2=R4=R5=2k ohm

R3=R7= 0 ohm

R9= 500 ohm

J3= SHORT

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	—	4.7	V	
	LOW	V _{IL}	—	0	—	0.8	V	
OUTPUT VOLTAGE	HIGH	V _{OH}	—	2.4	—	—	V	
	LOW	V _{OL}	—	—	—	0.4	V	
*LED BACKLIGHT	VOLTAGE		V _f	I _f =40mA	—	3.4	3.6	V
	CURRENT		I _f	—	—	40	—	mA
	POWER CONSUMPTION		P _D	—	—	136	—	mW
	LUMINOUS		L	I _f =40mA	15	20	—	cd/m ²
	COLOR			WHITE	—	0.31	—	X
—					0.32	—	Y	

*ONLY APPLIES TO MODULES WITH BACKLIGHT

ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	TEST CONDITION	STANDARD VALUE		UNIT
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	—	4.2V@50°C	4.8V@0°C	V
INPUT VOLTAGE	V _r	T _a =25°C	V _{SS}	V _{DD}	V
OPERATING TEMPERATURE	T _{opr}	LCM-S	-20	70	°C
STORAGE TEMPERATURE	T _{stg}	LCM-S	-30	80	°C

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REV.

A

PART NUMBER

LCM-H01602DSF/DPNY

9.63mm CHARACTER HEIGHT, 16 x 2 CHARACTERS,
5 x 8 DOT MATRIX LCD MODULE, STN, TRANSLUCENT,
1/16 DUTY, 1/5 BIAS, WHITE LED BACKLIGHT, 12:00 VIEW.

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APPROVED BY:

DATE: 7.2.04

PAGE: 2 OF 2

SCALE: N/A

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