

UNCONTROLLED DOCUMENT

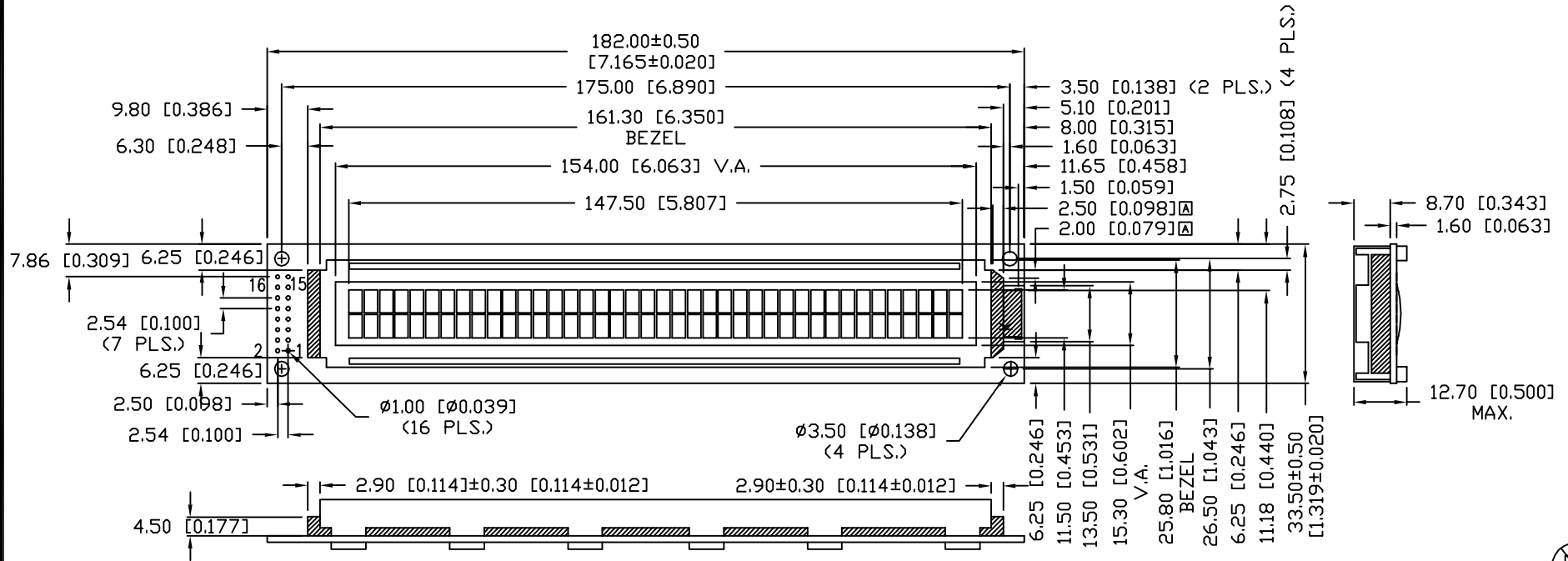
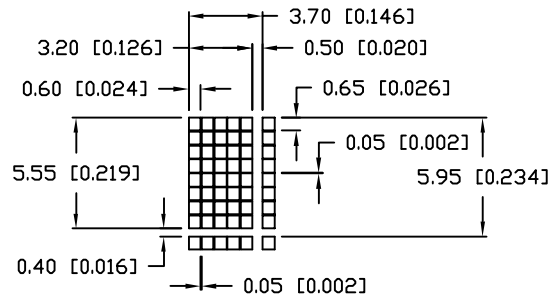
PART NUMBER  
LCM-H04002DWN-1G

REV.  
B

REV.	E.C.N. NUMBER AND REVISION COMMENTS	DATE
A	E.C.N. #11577.	07.15.09
B	E.C.N. #11587	10.02.03

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

CHARACTER DETAIL



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\*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.= +DECIMAL PRECISION MAX.= +0.00 -0.00

REV. B	PART NUMBER LCM-H04002DWN-1G
5 x 8 DOT MATRIX 40 x 2 LCD CHARACTER MODULE, 5.55mm CHARACTER HEIGHT, 1/16 DUTY, 1/5 BIAS, FSTN BLACK, NEGATIVE IMAGE, 525nm GREEN LED BACKLIGHT, 12:00 VIEW.	

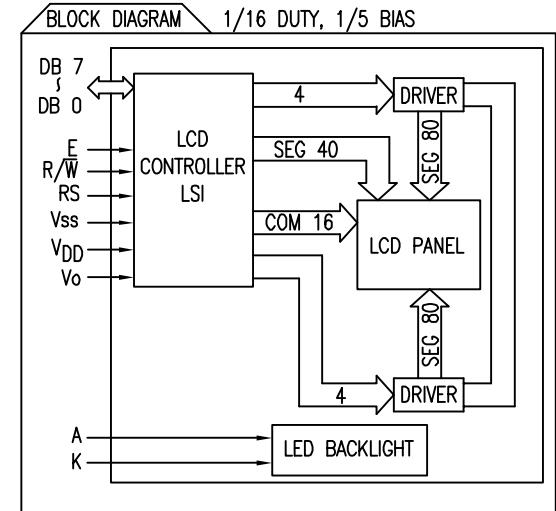
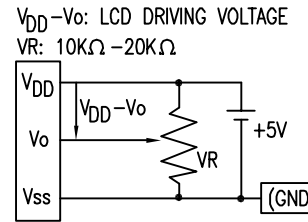
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**RELIABILITY NOTE**  
OUR MANY YEARS OF EXPERIENCE DATA ACCUMULATION INDICATE THAT SOLDER HEAT IS A MAJOR CAUSE OF EARLY AND FUTURE FAILURE. PLEASE PAY ATTENTION TO YOUR SOLDERING PROCESS.

<b>LUMEX</b> Creating LED and LCD Solutions Together™		290 E. HELEN ROAD PALATINE, IL 60067-6976 PHONE: +1.847.359.2790 US WEB: www.lumex.com TW WEB: www.lumex.com.tw	
DRAWN BY: JN	CHECKED BY:	APPROVED BY:	DATE: 05.22.08 PAGE: 1 OF 2 SCALE: N/A

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

PIN CONFIGURATION			
PIN NO.	SYMBOL	LEVEL	FUNCTION
1	V <sub>SS</sub>	-	POWER SUPPLY GND (0V)
2	V <sub>DD</sub>	-	
3	V <sub>O</sub>	-	
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 BACKLIGHT
16	K	-	CATHODE LED BACKLIGHT



ⓑ ELECTRICAL CHARACTERISTICS V<sub>DD</sub>=4.7V to 5.3V, T<sub>A</sub>=25°C

ITEM	SYMBOL	CONDITION	STANDARD VALUE			UNIT		
			MIN.	TYP.	MAX.			
SUPPLY VOLTAGE FOR LOGIC	V <sub>DD</sub> -V <sub>SS</sub>	-	-	5.0	-	V		
SUPPLY CURRENT FOR LOGIC	I <sub>DD</sub>	V <sub>DD</sub> =5V	-	2.0	3.0	mA		
INPUT VOLTAGE	HIGH	LOW	V <sub>IH</sub>	-	2.2	-	V <sub>DD</sub>	V
			V <sub>IL</sub>	-	0	-	0.6	V
OUTPUT VOLTAGE	HIGH	LOW	V <sub>OH</sub>	-	2.4	-	-	V
			V <sub>OL</sub>	-	-	-	0.4	V
LED BACKLIGHT	VOLTAGE	V <sub>f</sub>	-	3.3	3.5	V		
	CURRENT	I <sub>f</sub>	-	20	40	mA		
	POWER CONSUMPTION	PD	-	66	140	mW		
	LUMINOUS	L	I <sub>f</sub> =20mA	-	30	-	cd/m <sup>2</sup>	
	COLOR	-	-	-	525	-	nm	

ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	TEST CONDITION	STANDARD VALUE		UNIT
			MIN	MAX	
SUPPLY VOLTAGE FOR LOGIC	V <sub>DD</sub> -V <sub>SS</sub>	T <sub>a</sub> =25°C	4.7	5.3	V
SUPPLY VOLTAGE FOR LCD DRIVE	V <sub>DD</sub> -V <sub>O</sub>	-	4.2@50°C	4.8@0°C	V
INPUT VOLTAGE	V <sub>I</sub>	T <sub>a</sub> =25°C	V <sub>SS</sub>	V <sub>DD</sub>	V
OPERATING TEMPERATURE	T <sub>opr</sub>	LCM-H	-20	70	°C
STORAGE TEMPERATURE	T <sub>stg</sub>	LCM-H	-30	85	°C

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