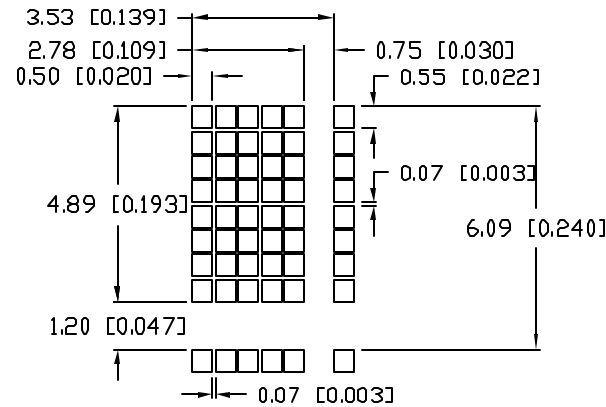
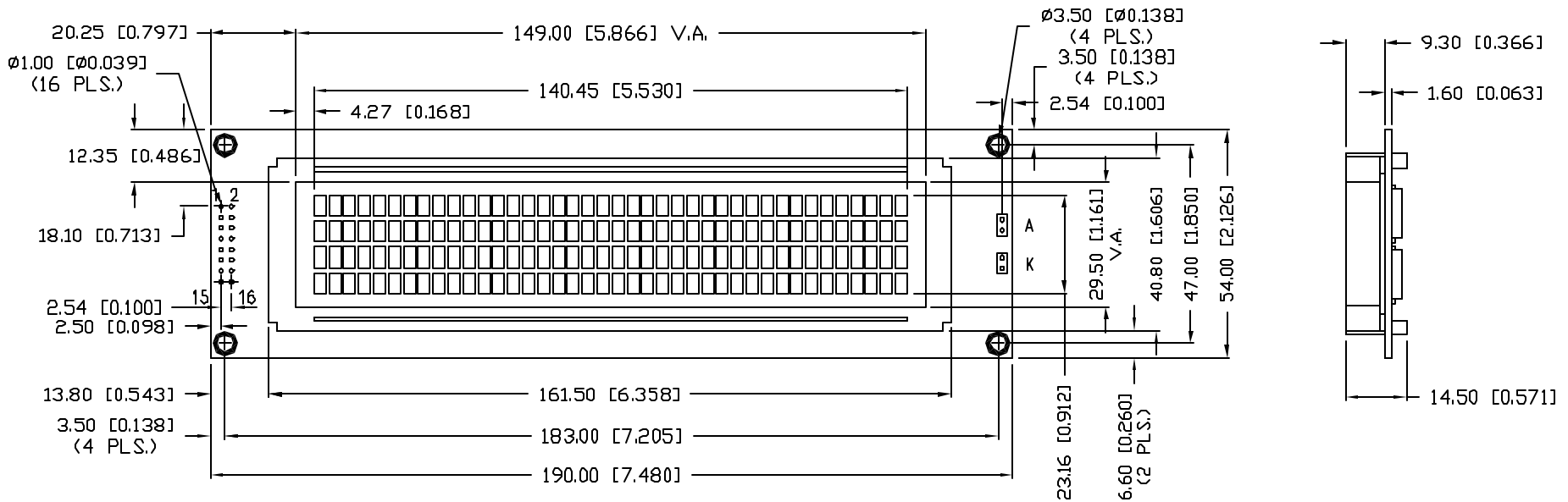


CHARACTER DETAIL



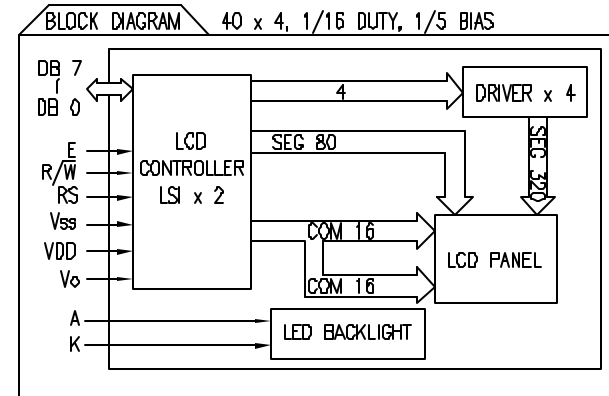
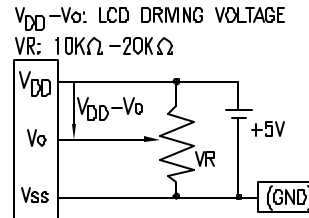
CAUTION: STATIC SENSITIVE DEVICE  
FOLLOW PROPER E.S.D. HANDLING PROCEDURES  
WHEN WORKING WITH THIS PART.



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

REV.	PART NUMBER LCM-S04004DSF-XB	<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>TRANSFLECTIVE, LED BACKLIGHT, 6:00 VIEW ANGLE 40 x 4 LCD CHARACTER MODULE, 1/16 DUTY, 1/5 BIAS, EUROPEAN FONT IC.</p>		<p>DRAWN BY: JD</p>	<p>CHECKED BY:</p>	<p>APPROVED BY: DATE: 9.21.05 PAGE: 1 OF 2 SCALE: N/A</p>

PIN CONFIGURATION			
PIN NO.	SYMBOL	LEVEL	FUNCTION
1~8	DB7~DB0	H/L	DATA BUS-SOFTWARE SELECTABLE 4 OR 8 BIT MODE.
9	E1	H,H->L	ENABLE 1
10	R/W	H/L	H: DATA READ (MODULE-->MPU) L: DATA WRITE (MODULE<--MPU)
11	RS	H/L	REGISTER SELECT SIGNAL H: DATA INPUT L: INSTRUCTION INPUT
12	V <sub>o</sub>	-	FOR LCD DRIVE
13	V <sub>ss</sub>	-	POWER SUPPLY
14	V <sub>DD</sub>	-	
15	E2	H,H->L	ENABLE 2
16	-	-	NO CONNECTION
	A	-	ANODE FOR BACKLIGHT
	K	-	CATHODE FOR 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	-	4.0	10.0	mA
INPUT VOLTAGE	HIGH	V <sub>IH</sub>	-	2.2	-	V <sub>DD</sub> V
	LOW	V <sub>IL</sub>	-	0	-	0.6 V
OUTPUT VOLTAGE	HIGH	V <sub>OH</sub>	-	2.4	-	V
	LOW	V <sub>OL</sub>	-	-	-	0.4 V
*LED BACKLIGHT	VOLTAGE	V <sub>f</sub>	-	4.2	4.6	V
	CURRENT	I <sub>f</sub>	-	500	-	mA
	POWER CONSUMPTION	P <sub>D</sub>	-	2100	-	mW
	LUMINOUS	L	I <sub>f</sub> =500mA	70	-	cd/m <sup>2</sup>
	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 <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-S	0	50	°C
		LCM-S	-20	70	°C
STORAGE TEMPERATURE	T <sub>stg</sub>	LCM-S	-20	70	°C

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REV. PART NUMBER  
LCM-S04004DSF-XB

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