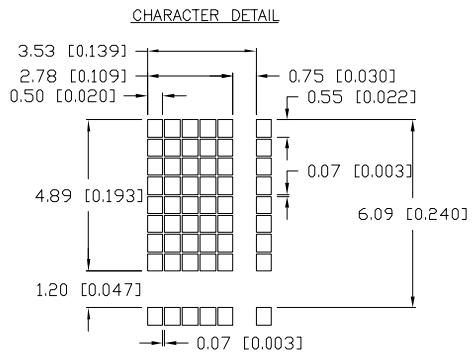


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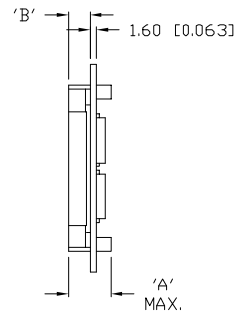
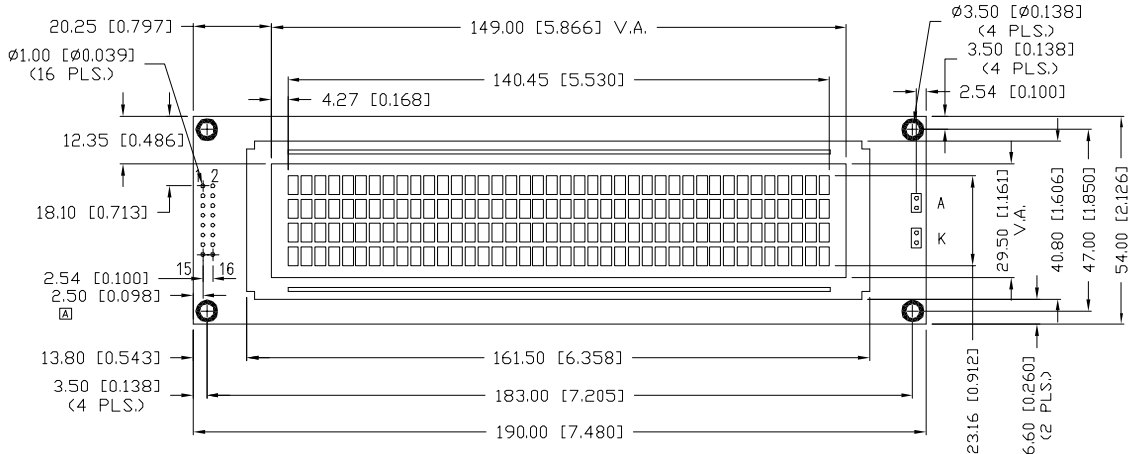
PART NUMBER		REV.
LCM-X04004DXX		A
REV.	E.C.N. NUMBER AND REVISION COMMENTS	DATE
A	E.C.N. #10BRDR. & 10999.	6.10.03

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.



TYPE	DIM.	A	B
WITH BACKLIGHT	14.5	9.3	
NO BACKLIGHT	10	4.9	



*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=+DECIMAL PRECISION MAX=-DECIMAL PRECISION

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REV.	PART NUMBER
A	LCM-X04004DXX
4.89mm CHARACTER HEIGHT, 5 x 8 DOT MATRIX, 40 x 4 LCD CHARACTER MODULE, 1/16 DUTY, 1/5 BIAS.	

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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.

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PAGE: 1 OF 2
SCALE: N/A

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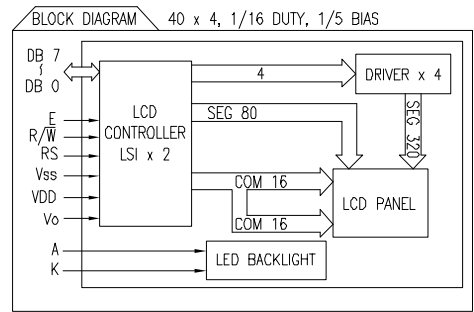
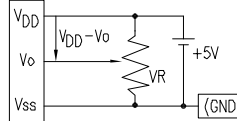
PART NUMBER
LCM-X04004DXX

REV.
A

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

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	Vo	-	FOR LCD DRIVE
13	Vss	-	POWER SUPPLY
14	VDD	-	GND (0V) 5V
15	E2	H,H->L	ENABLE 2
16	-	-	NO CONNECTION
	A	-	ANODE FOR BACKLIGHT
	K	-	CATHODE FOR BACKLIGHT

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



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	-	4.0	10.0	mA
INPUT VOLTAGE	HIGH	V _{IH}	-	2.2	-	V _{DD}
	LOW	V _{IL}	-	0	-	0.6
OUTPUT VOLTAGE	HIGH	V _{OH}	-	2.4	-	V
	LOW	V _{OL}	-	-	-	0.4
*LED BACKLIGHT	VOLTAGE	V _f	-	4.2	4.6	V
	CURRENT	I _f	-	500	-	mA
	POWER CONSUMPTION	PD	-	2100	-	mW
	LUMINOUS	L	I _f =500mA	70	-	cd/m ²
	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}	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

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REV. A	PART NUMBER LCM-X04004DXX
4.89mm CHARACTER HEIGHT, 5 x 8 DOT MATRIX, 40 x 4 LCD CHARACTER MODULE, 1/16 DUTY, 1/5 BIAS.	

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