

UNCONTROLLED DOCUMENT

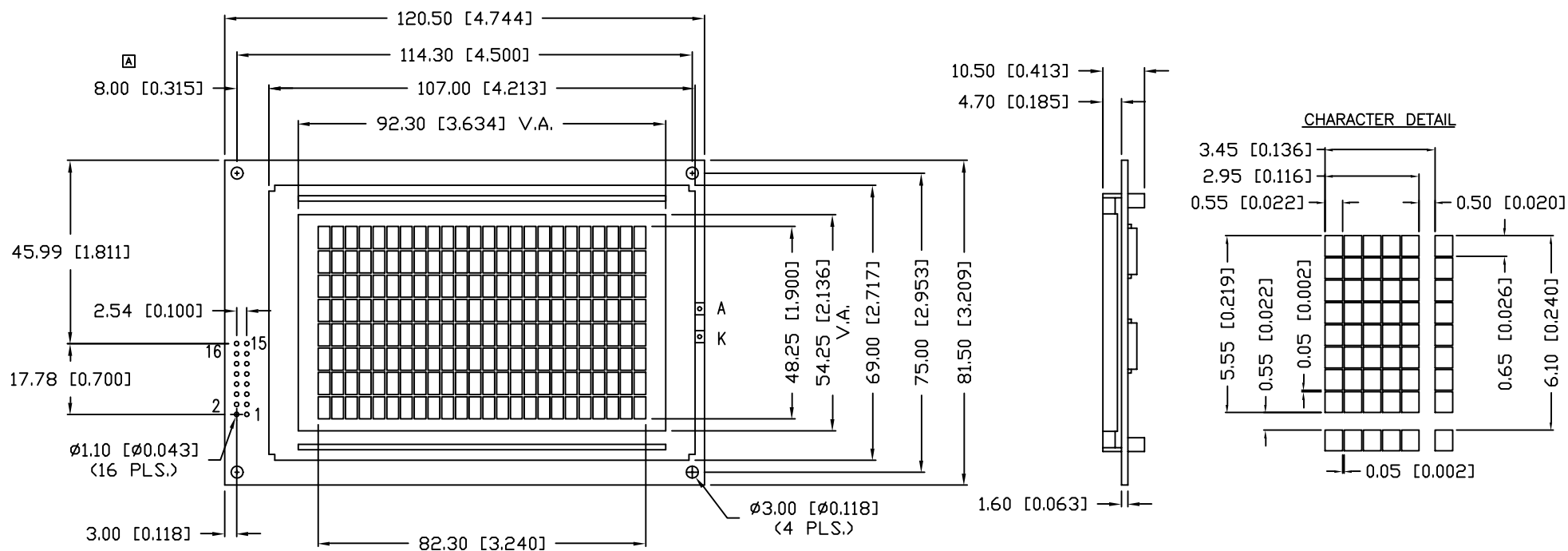
PART NUMBER
LCM-X02408DXX

REV.
A

REV.	E.C.N. NUMBER AND REVISION COMMENTS	DATE
A	E.C.N. #10564./	11-10-99

P/N PREFIX/SUFFIX TABLE			
LCM-X	DX	DESCRIPTION	
STANDARD	S	SR	STN, REFLECTIVE
HIGH TEMP.	H	SF	STN, TRANSFLECTIVE(W/ BACKLIGHT)

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



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*UNLESS OTHERWISE SPECIFIED TOLERANCE IS $\pm 0.25\text{mm}$ ($\pm 0.010''$)

REV. A PART NUMBER LCM-X02408DXX

CONFIDENTIAL INFORMATION
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5.55mm CHARACTER HEIGHT, 5 x 8 DOT MATRIX,
24 x 8 LCD CHARACTER MODULE, 1/16 DUTY, 1/5 BIAS.

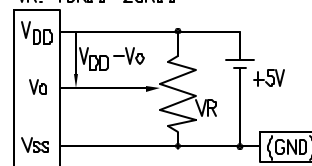
RELIABILITY NOTE
OUR MANY YEARS OF EXPERIENCE DATA ACCUMULATION INDICATE THAT SOLDER HEAT IS A MAJOR CAUSE OF EARLY AND FUTURE FAILURE. PLEASE PAY ATTENTION TO YOUR SOLDERING PROCESS.

DRAWN BY: SA/BC	CHECKED BY:	APPROVED BY:	DATE: 2-24-99
			PAGE: 1 OF 2
			SCALE: N/A

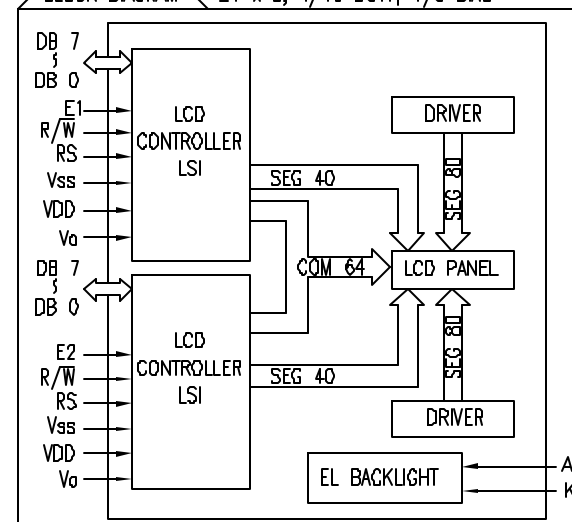
PIN CONFIGURATION

PIN NO.	SYMBOL	LEVEL	FUNCTION
1	V _{SS}	—	POWER SUPPLY GND (0V)
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	E1	H,H->L	ENABLE 1
7	E2	H,H->L	ENABLE 2
8~15	DB0~DB7	H/L	DATA BUS—SOFTWARE SELECTABLE 4 OR 8 BIT MODE
16	N/C	—	NO CONNECTION
	A	—	EL BACKLIGHT
	K	—	EL BACKLIGHT

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



BLOCK DIAGRAM 24 x 8, 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	—	2.5	5.0	mA
INPUT VOLTAGE	HIGH LOW	V _{IH}	—	2.2	—	V _{DD}
		V _{IL}	—	-0.3	—	0.6
OUTPUT VOLTAGE	HIGH LOW	V _{OH}	I _{OH} = -0.205mA	2.4	—	—
		V _{OL}	I _{OL} = 1.6mA	—	—	0.4
POWER SUPPLY FOR EL BACKLIGHT	V _{EL}	F _{EL} = 400Hz	—	—	80	V _{rms}
		I _{EL}	V _{EL} = 80V rms F _{EL} = 400Hz	—	—	6

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 _O	T _a =25°C	V _{DD} -13.5V	V _{DD} +0.3	V
INPUT VOLTAGE	V _I	T _a =25°C	V _{SS}	V _{DD}	V
		LCM-S	0	50	°C
OPERATING TEMPERATURE	T _{opr}	LCM-H	-20	70	°C
		LCM-S	-20	70	°C
STORAGE TEMPERATURE	T _{stg}	LCM-H	-30	85	°C
		LCM-S	-30	85	°C
POWER SUPPLY FOR EL BACKLIGHT	VEL	—	—	150AC	V _{rms}
	FEL	—	—	2	KHz

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