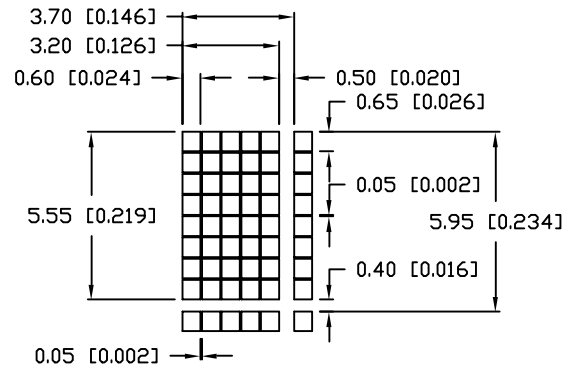


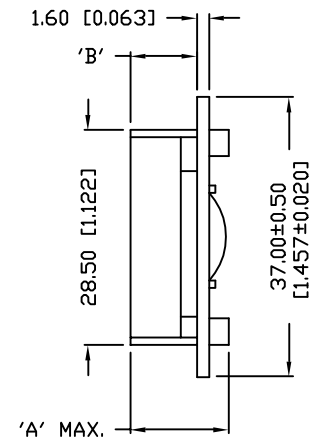
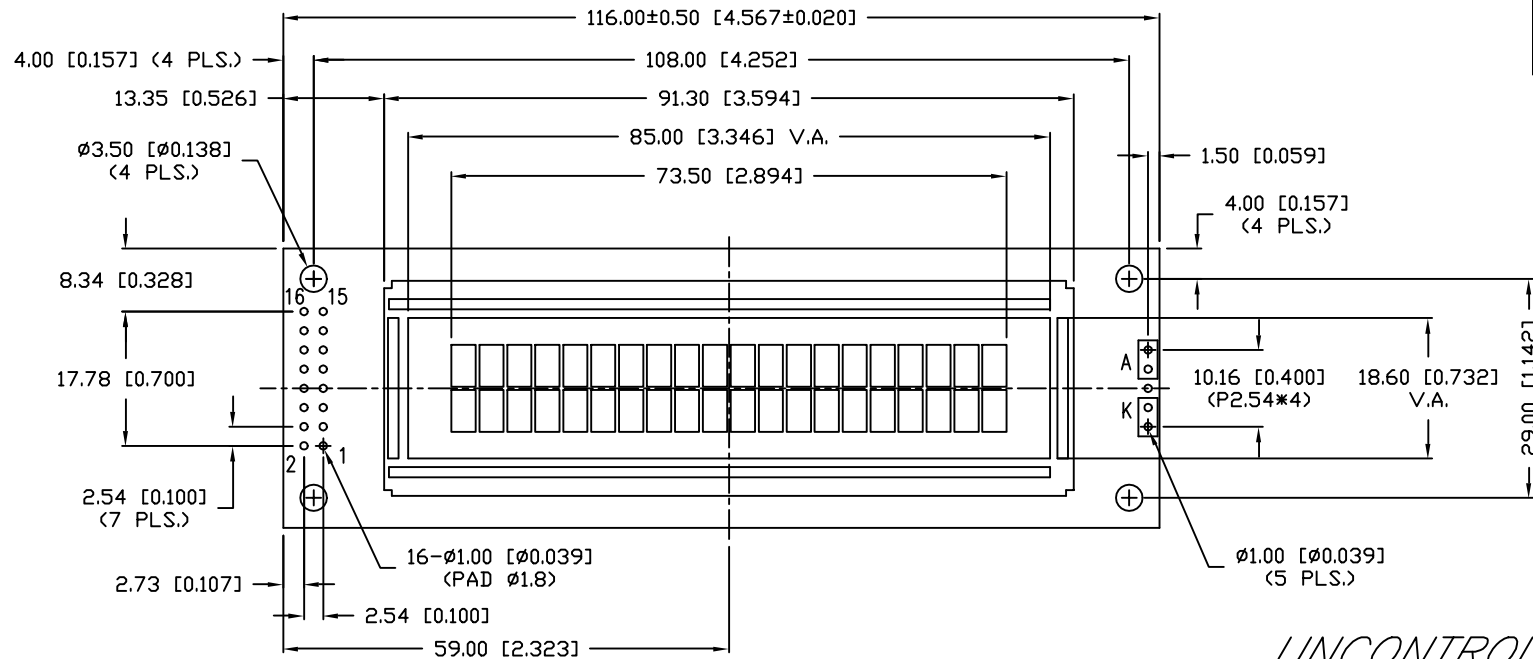
P/N PREFIX/SUFFIX TABLE		
LCM-X	DXX	DESCRIPTION
STANDARD	S	SR STN, REFLECTIVE
	SF	STN, TRANSFLECTIVE(W/ BACKLIGHT)
HIGH TEMP.	H	TR TN, REFLECTIVE
	TF	TN, TRANSFLECTIVE(W/ BACKLIGHT)

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

CHARACTER DETAIL



TYPE	DIM.	A	B
WITH BACKLIGHT		12.7	8.8
NO BACKLIGHT		8.9	4.8



\*UNLESS OTHERWISE SPECIFIED TOLERANCE IS ±0.25mm (±0.010")

REV. B	PART NUMBER LCM-X02002DXX
-----------	------------------------------

**CONFIDENTIAL INFORMATION**  
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.

**LUMEX INCORPORATED**

290 E. HELLEN ROAD  
PALATINE, ILLINOIS 60067  
PHONE: 1-847-359-2790  
WEB: HTTP://WWW.LUMEX.COM

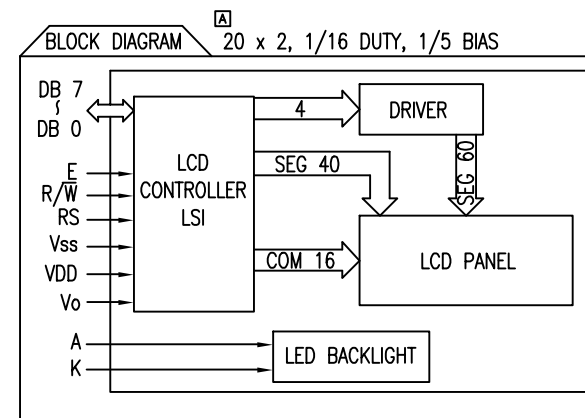
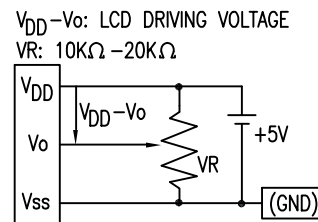
5.55mm CHARACTER HEIGHT, 5 x 8 DOT MATRIX,  
20 x 2 LCD MODULE, 1/16 DUTY, 1/5 BIAS.

**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: 4-2-98
			PAGE: 1 OF 2
			SCALE: N/A

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	V <sub>IH</sub>	-	2.2	-	V <sub>DD</sub>	
	LOW	V <sub>IL</sub>	-	0	-	0.6	
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>	I <sub>f</sub> =210mA	-	4.2	4.6	V
	CURRENT	I <sub>f</sub>	-	-	210	-	mA
	POWER CONSUMPTION	PD	-	-	882	-	mW
	LUMINOUS	L	I <sub>f</sub> =210mA	70	-	-	cd/m <sup>2</sup>
	COLOR	-	-	-	-	-	nm

\*ONLY APPLIES TO MODULES WITH BACKLIGHT

ABSOLUTE MAXIMUM RATINGS		A			
ITEM	SYMBOL	TEST CONDITION	STANDARD VALUE		UNIT
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-H	-20	70	°C
STORAGE TEMPERATURE	T <sub>stg</sub>	LCM-S	-20	70	°C
		LCM-H	-30	85	°C

\*UNLESS OTHERWISE SPECIFIED TOLERANCE IS ±0.25mm (±0.010")

REV. B	PART NUMBER LCM-X02002DXX
-----------	------------------------------

**CONFIDENTIAL INFORMATION**  
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.



290 E. HELLEN ROAD  
PALATINE, ILLINOIS 60067  
PHONE: 1-847-359-2790  
WEB: HTTP://WWW.LUMEX.COM

DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE: 4-2-98
			PAGE: 2 OF 2
			SCALE: N/A

5.55mm CHARACTER HEIGHT, 5 x 8 DOT MATRIX,  
20 x 2 LCD 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.

SA/BC

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [LCD Character Display Modules & Accessories](#) category:*

*Click to view products by [Lumex](#) manufacturer:*

Other Similar products are found below :

[HG9Z-AC501](#) [HG9Z-SCI25B](#) [LCM-S01602DTRA-3](#) [HG9Z-XC213](#) [EA FL-10P](#) [MDLS-81809-LV-GLED4G](#) [MDLS-20265-LV-GLED4G](#)  
[NMTC-S16205DFYHSAY-22](#) [NHD-0420AZ-FSW-GBW-33V33-0](#) [CM1644-SGR1](#) [162A BC BW](#) [LCM-S02002DSM-Y](#) [162D BA BC](#)  
[HDM24216H-2-P9XS](#) [DEM 16207 SYH-PY](#) [RC0802A1-LLG-JWVE](#) [RC0802A1-LLR-JWVE](#) [RC0802A-TIW-ESV](#) [RC1202A-BIY-CSX](#)  
[RC1202A-BIY-ESX](#) [RC1602A-BIW-CSV](#) [RC1602A-YHW-CSV](#) [RC1602B-GHY-CSXD](#) [RC1602B-TIW-CSV](#) [RC1602B-YHY-CSVD](#)  
[RC1602D-GHY-ESX](#) [RC2002A2-LLB-JSVE](#) [RC2002A-GHG-CSV](#) [RC2004A-BIW-ESX](#) [RC2004A-GHW-CSV](#) [RC2004A-LLB-JSVE](#)  
[RC2004A-LLH-JSV](#) [RC2004A-LLR-JSVE](#) [DEM 08171 SYH-LY](#) [DEM 08172 SYH-PY](#) [DEM16101SYH-LY](#) [DEM 16209 SBH-PW-N](#)  
[DEM 16210 SGH](#) [DEM 16214 FGH-PW](#) [DEM 16216 FDH-P\(RGB\)-N](#) [DEM16216SYH-LY](#) [DEM 16217 SYH-PY](#) [DEM 16221 SYH](#) [DEM](#)  
[16221 SYH \(FFCF/TR\)/V](#) [DEM 16227 FGH-PW](#) [DEM 16227 SBH-PW-N](#) [DEM 16227 SYH-LY](#) [DEM 20231 SYH-PY-CYR22](#) [DEM 20232](#)  
[SBH-PW-N](#) [DEM 20233 SYH-LY](#)