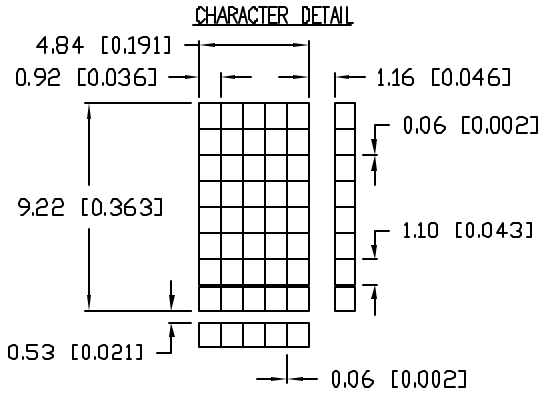
UNCONTROLLED DOCUMENT

PART NUMBER	REV.
LCM-X02004DXX/D-Y	B

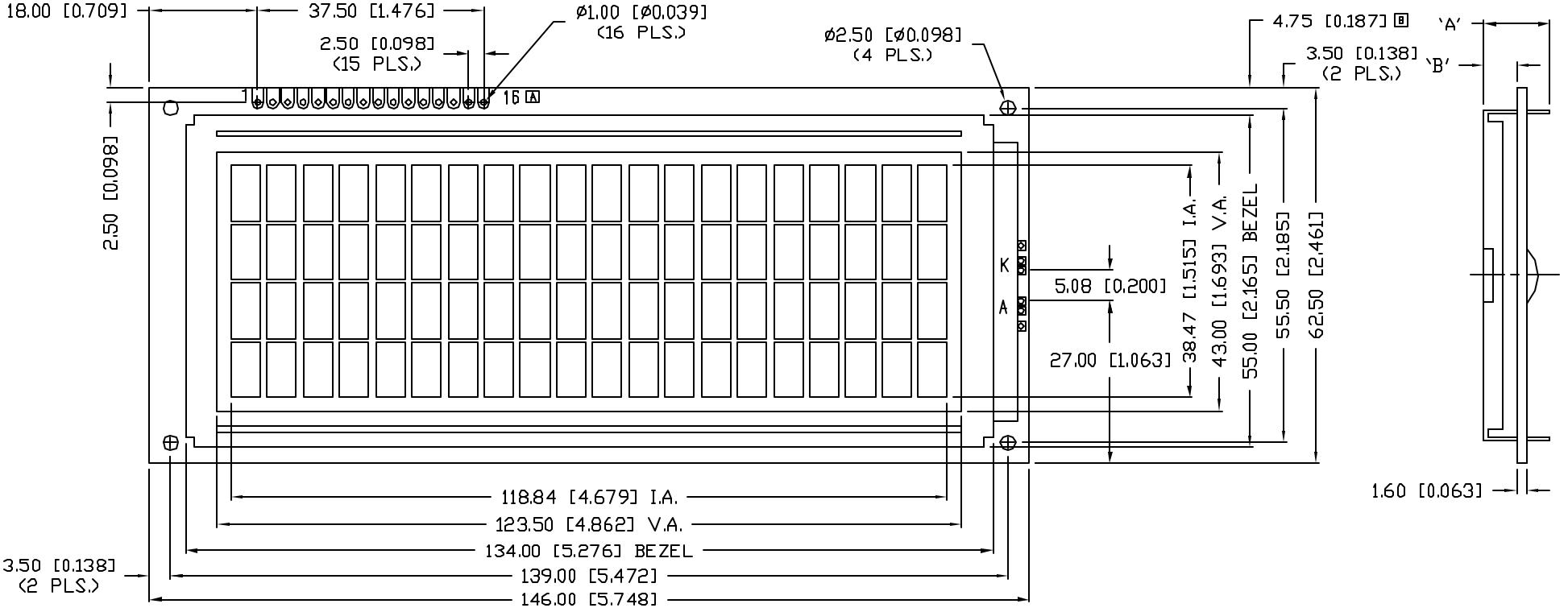
REV.	E.C.N. NUMBER AND REVISION COMMENTS	DATE
A	E.C.N. #10708.	1.18.01
B	E.C.N. #10990.	5.13.03

P/N PREFIX/SUFFIX TABLE			
LCM-X	DXX	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.



TYPE DIM.	A	B
WITH BACKLIGHT	13.0	9.0
NO BACKLIGHT	11.0	5.4



UNCONTROLLED DOCUMENT

*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 -0.00 MAX.= +0.00 -DECIMAL PRECISION

REV.	PART NUMBER
B	LCM-X02004DXX/D-Y

9.22mm CHARACHTER HEIGHT, 20 x 4 CHARACHTERS,
5 x 8 DOT MATRIX LCD MODULE,
STN YELLOW, 1/16 DUTY, 1/5 BIAS.

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.

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.

LUMEX
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:	CHECKED BY:	APPROVED BY:	DATE: 11.13.00
SA-CT			PAGE: 1 OF 2
			SCALE: N/A

UNCONTROLLED DOCUMENT

PART NUMBER	REV.
LCM-X02004DXX/D-Y	B

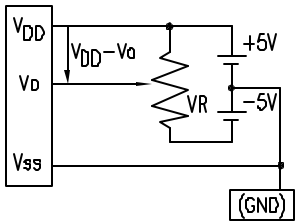
REV.	E.C.N. NUMBER AND REVISION COMMENTS	DATE
	SEE PAGE 1.	

PIN CONFIGURATION

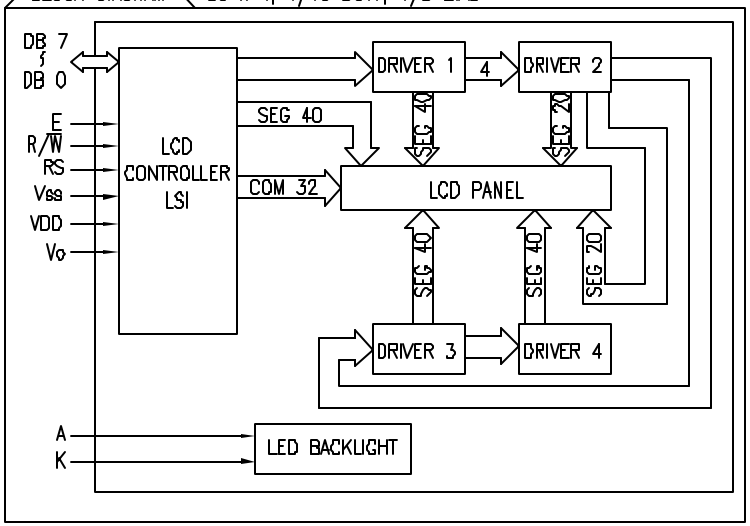
PIN NO.	SYMBOL	LEVEL	FUNCTION	
1	Vss	–	POWER SUPPLY	GND (0V)
2	V_{DD}	–		5V
3	Vo	–		FOR LCD DRIVE
4	RS	H/L	REGISTER SELECT SIGNAL H: DATA INPUT L: INSTRUCTION INPUT	
5	R/W	H/L	H: DATA READ (MODULE-->MPU) L: DATA WRITE (MODULE<--MPU)	
6	E	H,H->L	ENABLE	
7~14	DB0~DB7	H/L	DATA BUS-SOFTWARE SELECTABLE 4 OR 8 BIT MODE.	
15	A	–	ANODE	LED BACKLIGHT
16	K	–	CATHODE	LED BACKLIGHT

[A]

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



BLOCK DIAGRAM 20 x 4, 1/16 DUTY, 1/5 BIAS



ELECTRICAL CHARACTERISTICS

V_{DD}=4.7V to 5.3V, T_A=25°C

ITEM		SYMBOL	CONDITION	STANDARD VALUE MIN.	TYP.	MAX.	UNIT
SUPPLY VOLTAGE FOR LOGIC		V_{DD}-Vss	–	–	5.0	–	V
SUPPLY CURRENT FOR LOGIC		I_{DD}	V_{DD}=5V	–	2.0	3.0	mA
INPUT VOLTAGE	HIGH	V_{IH}	–	2.2	–	V_{DD}	V
	LOW	V_{IL}	–	0	–	0.6	V
OUTPUT VOLTAGE	HIGH	V_{OH}	I_{OH}=-0.205mA	2.4	–	–	V
	LOW	V_{OL}	I_{OL}=1.6mA	–	–	0.4	V
*LED BACKLIGHT	VOLTAGE	Vf	If=550mA	–	4.2	4.5	V
	CURRENT	If	–	–	550	600	mA
	POWER CONSUMPTION	PD	–	–	2310	–	mW
	LUMINOUS	L	If=550mA	70	–	–	cd/m²
	COLOR	–	–	–	–	–	nm

*ONLY APPLIES TO MODULES WITH BACKLIGHT

ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	TEST CONDITION	STANDARD VALUE MIN	MAX	UNIT
SUPPLY VOLTAGE FOR LOGIC	V_{DD}-Vss	Ta=25°C	4.7	5.3	V
SUPPLY VOLTAGE FOR LCD DRIVE	V_{DD}-Vo	–	0.5	10.0	V
INPUT VOLTAGE	V_I	Ta=25°C	Vss	V_{DD}	V
OPERATING TEMPERATURE	Topr	LCM-H	-20	80	°C
STORAGE TEMPERATURE	Tstg	LCM-H	-30	85	°C

UNCONTROLLED DOCUMENT

*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= $^{+\text{DECIMAL PRECISION}}_{-0.00}$ MAX.= $^{+0.00}_{-\text{DECIMAL PRECISION}}$

REV.	PART NUMBER
B	LCM-X02004DXX/D-Y

9.22mm CHARACHTER HEIGHT, 20 x 4 CHARACHTERS,
5 x 8 DOT MATRIX LCD MODULE,
STN YELLOW, 1/16 DUTY, 1/5 BIAS.

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.

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.

LUMEX
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:	CHECKED BY:	APPROVED BY:	DATE: 11.13.00
SA-CT			PAGE: 2 OF 2
			SCALE: N/A

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-161612-G-LV-LED4G 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