

\*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 MAX.= +D.00

PRECISION	UNCONTROLLEL	DOCUMENT	
-----------	--------------	----------	--

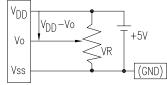
				0,,00			
		290 E. HELEN ROAD	9.63mm CHARACTER HEIGHT, 16x2 CHARACTERS, 5x8 DOT MATRIX LCD MODULE, 1/16 DUTY, 1/5 BIAS.	DATE:	01.28.11	DRAWN BY:	AB
		PALATINE, IL 60067-6976 PHONE: +1.847.359.2790	**THE SPECIFICATIONS MAY CHANGE AT ANY TIME WITHOUT NOTICE DUE TO NEW MATERIALS OR PRODUCT IMPROVEMENT.**	PAGE:	1 OF 2	CHKD BY:	ΥA
		FAX: +1.847.359.6538	CONFIDENTIAL INFORMATION	SCALE:	NTS	APRVD BY:	BC
Creating LED and LCD Solutions Together™	WEB: WWW.LUMEX.COM	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.	UNIT: r	mm [INCH]	R		

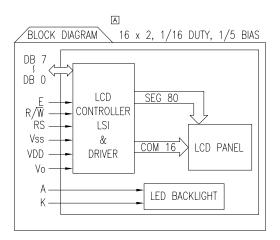
PART NU	MBER	LCM-X01602DXX/D	REV.	А
DATE		E.C.N. NUMBER AND REVISION COMMENTS		REV.
10.09.	98 E.C	.N. #10464.		А

## PIN CONFIGURATION

PIN NO.	SYMBOL	LEVEL	FUNCTION									
1	Vss	-	GND (OV)									
2	V <sub>DD</sub>	-	POWER SUPPLY 5V									
3	Vo	-		FOR LCD DRIVE								
			REGISTER SELECT SIGNAL									
4	RS	RS	RS	RS	RS	H/L	H: DATA INPUT					
			L: INSTRUCTION INPUT									
5 R/W H/		цИ	H: DATA READ (MODULE>MPU)									
		пус	L: DATA WRITE (MODULE <mpu)< td=""></mpu)<>									
6	E	H,H–>L	ENABLE									
7~14	DB0~DB7	H/L	DATA BUS-SOFTWARE	SELECTABLE 4 OR 8 BIT MODE.								
15	А	_	ANODE	LED BACKLIGHT								
16	К	_	CATHODE	LED BACKLIGHT								

V<sub>DD</sub>-Vo: LCD DRIVING VOLTAGE VR: 10KΩ -20KΩ





AB

ΥA

BC

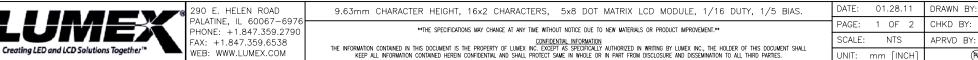
 $(\mathbb{N})$ 

ELECTRIC	AL CHARACT	TERISTICS	× V <sub>DD</sub> =	4.7V to 5.3V, T <sub>A</sub> =	25°C			
ITEM			SYMBOL	CONDITION	STANDARD VALUE			LINUT
IIEW					MIN.	TYP.	MAX.	UNIT
SUPPLY VO	LTAGE FOR	LOGIC	V <sub>DD</sub> -Vss	-	-	5.0	-	V
SUPPLY CL	IRRENT FOR	LOGIC	IDD	V <sub>DD</sub> =5V	-	2.0	3.0	mA
		HIGH	VIH	-	2.2	-	4.7	V
INPUT VOLT	INPUT VOLTAGE LOW		VIL	-	0	-	0.6	V
	OUTPUT VOLTAGE LOW		V <sub>OH</sub>	_	2.4	-	-	V
OUTPUT VO			V <sub>OL</sub>	-	-	-	0.4	V
	VOLTAGE		Vf	lf=220mA	-	4.2	4.6	V
*LED	CURRENT		lf	-	-	220	480	mA
BACKLIGHT	POWER CUNSUMPTION		PD	-	-	924	-	mW
	LUMINOUS		L	lf=220mA	70	_	-	cd/m²
	COLOR		-	_	-	-	-	nm

\*ONLY APPLIES TO MODULES WITH BACKLIGHT

ABSOLUTE MAXIMUM RATINGS	\ \				
ITEM	SAMBU	TEST	STANDARD VALUE		UNIT
	SYMBOL	CONDITION	MIN	MAX	
SUPPLY VOLTAGE FOR LOGIC	VDD-Vss	Ta=25°C	4.7	5.3	٧
SUPPLY VOLTAGE FOR LCD DRIVE	VDD-No	-	4.2V@50°C	4.8@0°C	V
INPUT VOLTAGE	Vr	Ta=25°C	Vss	V <sub>DD</sub>	V
OPFRATING TEMPERATURE	Topr	LCM-S	0	50	°C
OPERATING TEMPERATURE		LCM-H	-20	70	°C
STORAGE TEMPERATURE	Tata	LCM-S	-20	70	°С
STORAGE TEMPERATURE	Tstg	LCM-H	-30	85	°C

\*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 MAX.= +DECIMAL PRECISION UNCONTROLLED DOCUMENT



## **Mouser Electronics**

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Lumex:

LCM-S01602DSF/D LCM-H01602DTF/D