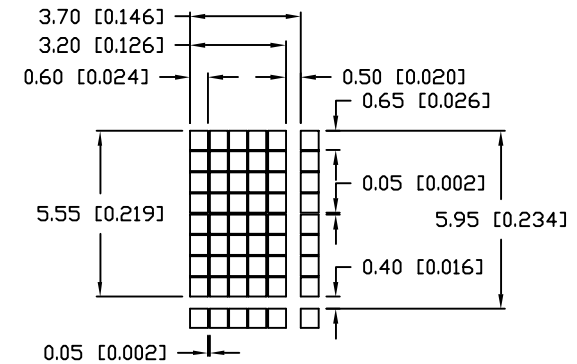


CHARACTER DETAIL

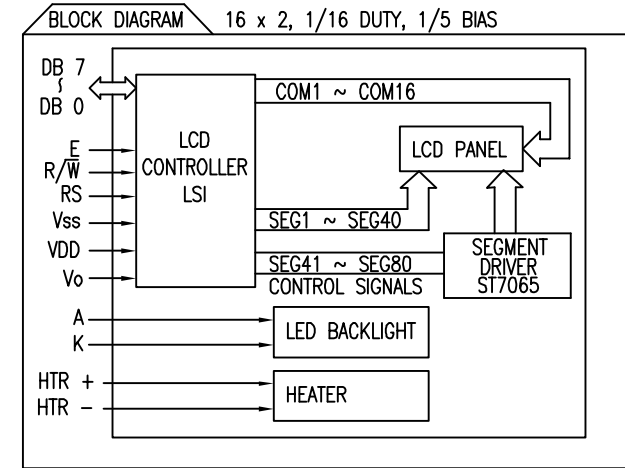
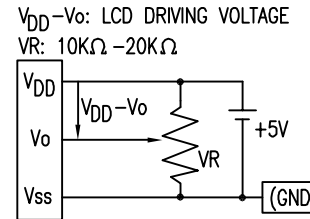


CAUTION: STATIC SENSITIVE DEVICE
FOLLOW PROPER E.S.D. HANDLING PROCEDURES
WHEN WORKING WITH THIS PART.

*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 LCR-U02002DSF-WH	<p>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.</p>	<p>LUMEX Creating LED and LCD Solutions Together™</p> <p>290 E. HELEN ROAD PALATINE, IL 60067-6976 PHONE: +1.847.359.2790 US WEB: www.lumex.com TW WEB: www.lumex.com.tw</p>
<p>20 x 2 CHARACTER LCD MODULE, STN GRAY, -40°C TO +85°C OPERATING TEMPERATURE, W/ HEATER, TRANSFLECTIVE, WHITE LED BACKLIGHT, 6:00 VIEW.</p>		<p>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.</p>	<p>DRAWN BY: JN CHECKED BY: APPROVED BY: DATE: 11.17.09 PAGE: 1 OF 2 SCALE: N/A</p>

PIN CONFIGURATION			
PIN NO.	SYMBOL	LEVEL	FUNCTION
1	V _{SS}	-	POWER SUPPLY
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	E	H,H->L	ENABLE
7~14	DB0~DB7	H/L	DATA BUS--SOFTWARE SELECTABLE 4 OR 8 BIT MODE.
15	A	-	ANODE
16	K	-	CATHODE
17	HTR +	-	+12V
18	HTR -	-	GND (0V)



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	-	1.6	2.5	mA	
INPUT VOLTAGE	HIGH	V _{IH}	-	2.2	-	V _{DD}	
	LOW	V _{IL}	-	0	-	0.6	
OUTPUT VOLTAGE	HIGH	V _{OH}	-	2.4	-	-	
	LOW	V _{OL}	-	-	-	0.4	
LED BACKLIGHT	VOLTAGE	V _f	I _f =15mA	-	6.6	7.2	V
	CURRENT	I _f	-	-	15	-	mA
	POWER CONSUMPTION	PD	-	-	99	-	mW
	LUMINOUS	L	I _f =15mA	70	-	-	cd/m ²
	COLOR COORDINATE	X Y	WHITE	.240 .240	- -	.330 .330	
HEATER	VOLTAGE	V _{FH}	-	-	12	-	V
	RESISTANCE	-	-	-	11	-	OHM
	CURRENT	I _H	-	-	1.1	-	AMP
	POWER	PH	-	-	13.1	-	W

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}	W/ HEATER	-40	+85	°C
STORAGE TEMPERATURE	T _{stg}	W/ HEATER	-40	+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 -0.00, MAX.= +0.00 -DECIMAL PRECISION

REV. PART NUMBER
LCR-U02002DSF-WH

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. HELEN ROAD
PALATINE, IL 60067-6976
PHONE: +1.847.359.2790
US WEB: www.lumex.com
TW WEB: www.lumex.com.tw

20 x 2 CHARACTER LCD MODULE, STN GRAY,
-40°C TO +85°C OPERATING TEMPERATURE, W/ HEATER,
TRANSFLECTIVE, WHITE LED BACKLIGHT, 6:00 VIEW.

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: JN CHECKED BY: APPROVED BY: DATE: 11.17.09
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-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](#)