



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

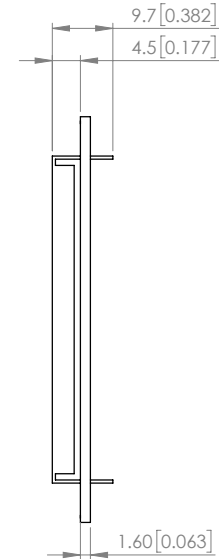
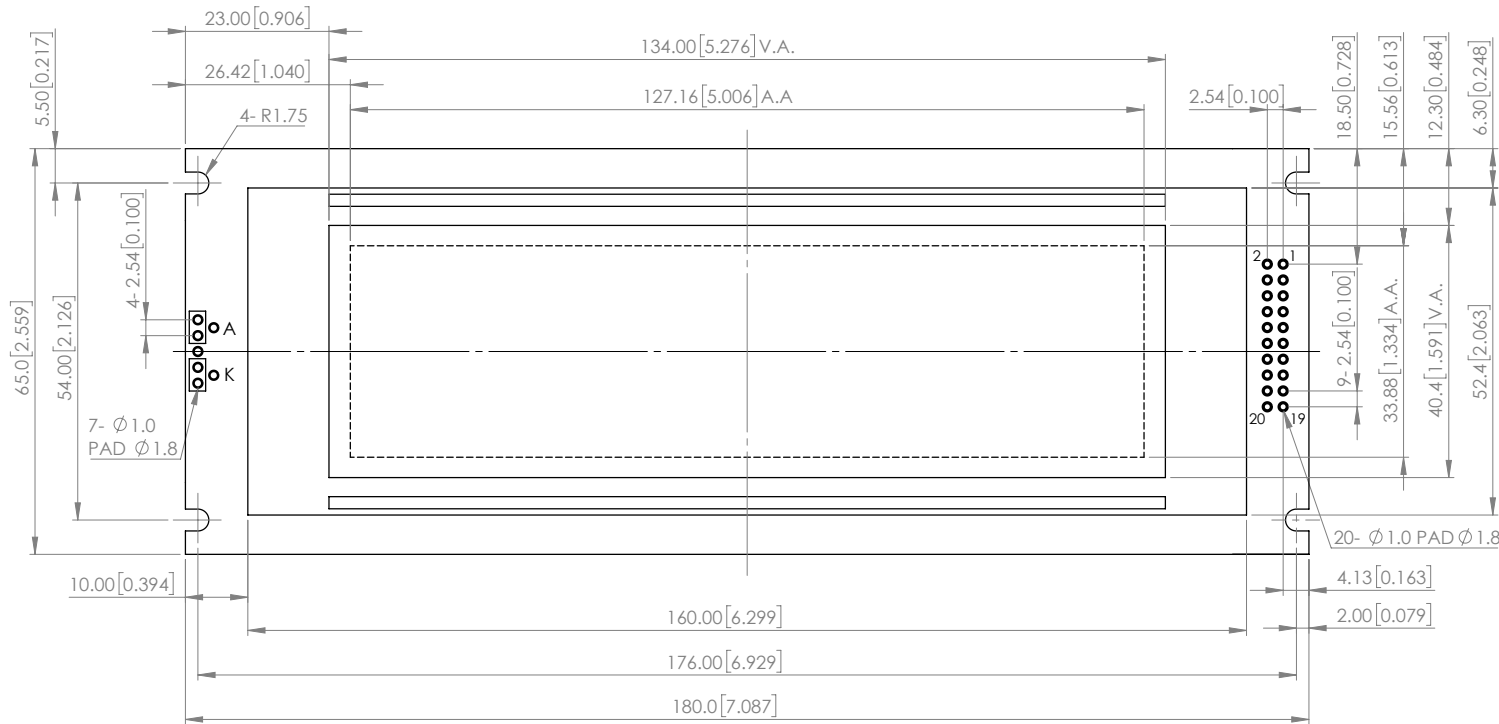
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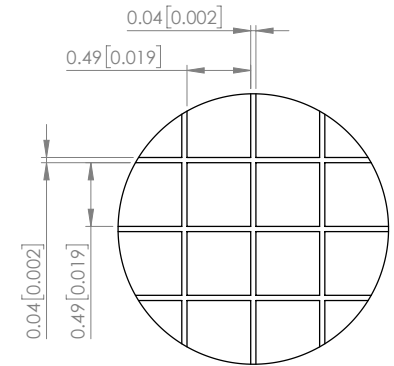
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



PART NUMBER		LCM-H24064GSF-N	REV	A
REV	E.C.N. NUMBER AND REVISION COMMENTS		DATE	
A	ECN-Lumex201800061		04.26.18	




PIN NO	SIGNAL
1	FGND
2	VSS
3	VDD
4	VO
5	/WR
6	/RD
7	/CE
8	C/D
9	VEE
10	/RST
11	DB0
12	DB1
13	DB2
14	DB3
15	DB4
16	DB5
17	DB6
18	DB7
19	FS
20	NC



**NOTE:**  
1. RoHS COMPLIANT.

\*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=<sup>+DECIMAL PRECISION</sup><sub>-0.00</sub> MAX.=<sup>+0.00</sup><sub>-DECIMAL PRECISION</sub>

 <p>425 N. GARY AVE. CAROL STREAM, IL 60188 PHONE : 800-278-5666 FAX : 630-315-2150 WEB : WWW.LUMEX.COM</p>	180.0(W)×65.0(H)×9.7/13.8(D)MAX mm, 240x64 DOT MATRIX GRAPHIC LCD MODULE, STN GRAY, TRANSFLECTIVE, 1/64 DUTY, EL BACKLIGHT.	DATE : 2018.04.26	DRAWN BY : C.C.	
	**THE SPECIFICATIONS MAY CHANGE AT ANY TIME WITHOUT NOTICE DUE TO NEW MATERIALS OR PRODUCT IMPROVEMENT.**	PAGE : 1 OF 4	CHKD BY : E.C.	
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		UNIT : mm [INCH]		

**GENERAL SPECIFICATION**

ITEM	DESCRIPTION
LCD TYPE	STN
REAR POLARIZER	POSITIVE / TRANSFLECTIVE
BACKLIGHT TYPE	EL
BACKLIGHT COLOR	GREEN
TEMPERATURE RANGE	WIDE TEMP., 5V
VIEWING DIRECTION	6 O'CLOCK
VIEWING AREA	134.0 (W)mm x 40.4 (H)mm
MODULE SIZE	180 (W)mm x 65.0 (H)mm x 9.7/13.8 MAX(D)mm
PIXELS SIZE	0.49 x 0.49
PIXELS PITCH	0.53 x 0.53
DISPLAY FORMAT	240(W) x 64(H)
DUTY RATIO	1 / 64 DUTY

**ABSOLUTE MAXIMUM RATING**

(1) Electrical Absolute Ratings

ITEM	SYMBOL	MIN.	MAX.	UNIT	
POWER SUPPLY FOR LOGIC	V <sub>DD</sub> -V <sub>SS</sub>	-0.3	5.5	VOLT	
POWER SUPPLY FOR LCD	V <sub>DD</sub> -V <sub>EE</sub>	0	22	VOLT	
INPUT VOLTAGE	V <sub>1</sub>	V <sub>SS</sub>	V <sub>DD</sub>	VOLT	
POWER SUPPLY FOR EL BACKLIGHT	VOLTAGE	VEL	-	150	Vrms
	FREQUENCY	FEL	-	1.0	KHZ

(2) Environmental Absolute Maximum Ratings

ITEM	WIDE TEMPERATURE			
	OPERATING		STORAGE	
	MIN.	MAX.	MIN.	MAX.
AMBIENT TEMPERATURE	-20 °C	+70 °C	-30 °C	+80 °C
HUMIDITY (WITHOUT CONDENSATION)	NOTE 1, 2		NOTE 1, 3	

Note 1: Background color changes slightly depending on ambient temperature.

This phenomenon is reversible.

Note 2: Ta ≤ 70 °C: 75RH max

Ta > 70 °C: absolute humidity must be lower than the humidity of 75%RH at 70 °C

Note 3: Ta at -30 °C will be <48hrs, at 80 °C will be <120hrs when humidity is higher than 75%.

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180.0(W)×65.0(H)×9.7/13.8(D)MAX mm, 240x64 DOT MATRIX GRAPHIC LCD MODULE, STN GRAY, TRANSFLECTIVE, 1/64 DUTY, EL BACKLIGHT.

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**ELECTRICAL CHARACTERISTICS**

ITEM	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
<b>POWER SUPPLY FOR LOGIC</b>	V <sub>DD</sub> -V <sub>SS</sub>	-	4.5	5.0	5.5	VOLT
<b>POWER SUPPLY FOR LCD</b>	V <sub>EE</sub> -V <sub>SS</sub>	-	-14.1	-14.4	-14.8	VOLT
<b>INPUT VOLTAGE</b>	V <sub>IL</sub>	L LEVEL	0	-	0.15 V <sub>DD</sub>	VOLT
	V <sub>IH</sub>	H LEVEL	0.8 V <sub>DD</sub>	-	V <sub>DD</sub>	VOLT
	V <sub>DD</sub> -V <sub>O</sub>	T <sub>a</sub> =25°C	10.8	12.2	13.1	VOLT
<b>BEGIN INTENSITY</b>	-	(STEALTHY) 100V rms 400Hz	50	70	-	cd/m <sup>2</sup>
<b>POWER SUPPLY CURRENT FOR LCM</b>	I <sub>DD</sub>	V <sub>DD</sub> =5.0V V <sub>DD</sub> -V <sub>O</sub> =12.2V	-	16.0	25.0	mA
<b>POWER SUPPLY FOR EL BACKLIGHT</b>	V <sub>EL</sub>	F <sub>EL</sub> =400HZ	-	100	-	Vrms
	I <sub>EL</sub>	V <sub>EL</sub> =100V F <sub>EL</sub> =400HZ	-	3.7	-	mArms

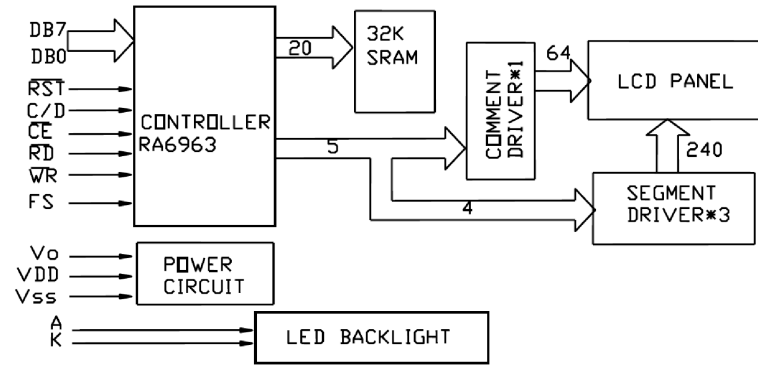
**ELECTRICAL CHARACTERISTICS**

PIN NO.	PIN OUT	FUNCTION DESCRIPTION
1	FGND	For GND
2	V <sub>SS</sub>	Power Supply Ground
3	V <sub>DD</sub>	Power Supply Voltage
4	V <sub>0</sub>	Contrast Adjustment Voltage
5	/WR	Data Write
6	/RD	Data Read
7	/CE	Enable Signal
8	C/D	WR='L', C/D='H': Command Write WR='L', C/D='L': Data Write RD='L', C/D='H': Status Read RD='L', C/D='L': Data Read
9	VEE	No Connection
10	/RST	Reset Signal
11	DB0	Data Bit 0
12	DB1	Data Bit 1
13	DB2	Data Bit 2
14	DB3	Data Bit 3
15	DB4	Data Bit 4
16	DB5	Data Bit 5
17	DB6	Data Bit 6
18	DB7	Data Bit 7
19	FS	H : 6*8/L : 8*8 Select of Font
20	NC	No Connection

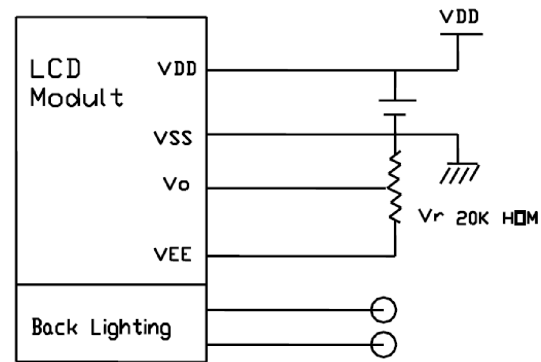
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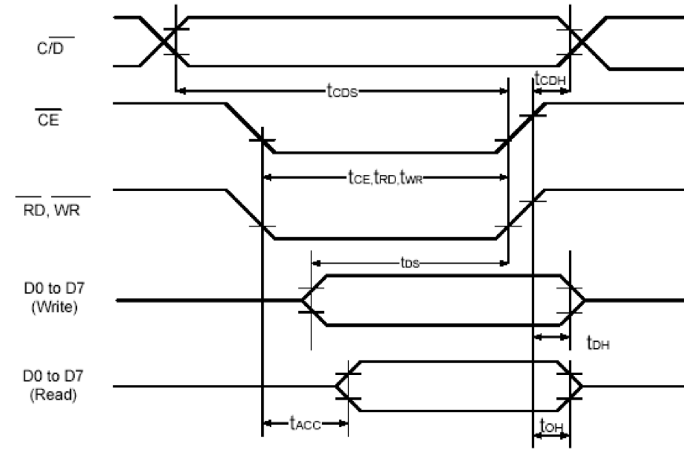
### BLOCK DIAGRAM



### POWER SUPPLY



### TIMING CHARACTERISTIC



ITEM	SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
C/D Set Up Time	$t_{CDS}$	--	100	--	ns
C/D Hold Time	$t_{CDH}$	--	10	--	ns
/CE, /RD, /WR Pulse Width	$t_{CE}, t_{RD}, t_{WR}$	--	80	--	ns
Data Set Up Time	$t_{DS}$	--	80	--	ns
Data Hold Time	$t_{DH}$	--	40	--	ns
Access Time	$t_{ACC}$	--	--	150	ns
Output Hold Time	$t_{OH}$	--	10	50	ns

\*VDD=+5V±5%, GND=0V, Ta=-20~70 degree

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