



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

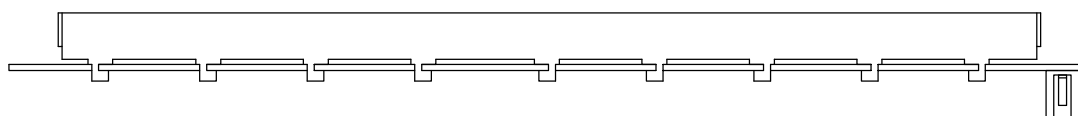
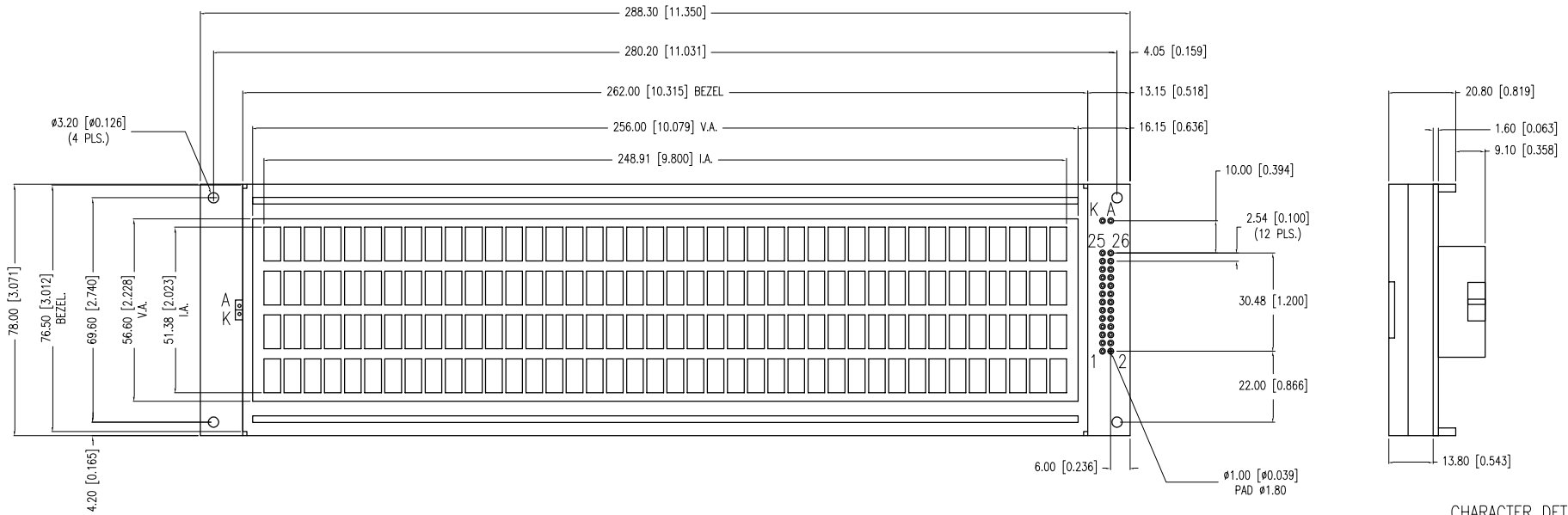
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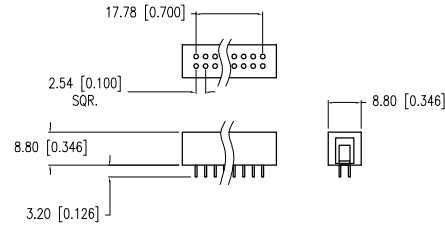
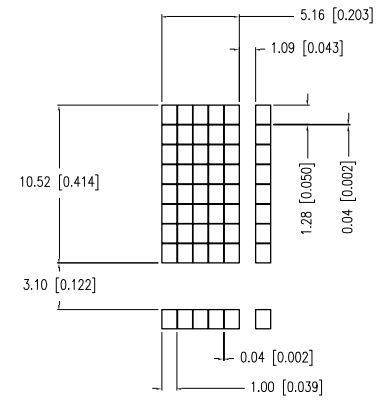
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



PART NUMBER	LCM-H04004DSF/D12T	REV.	A
DATE	E.C.N. NUMBER AND REVISION COMMENTS		REV.
4.19.07	E.C.N. #11148.		A



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 DECIMAL PRECISION MAX.= +0.00 DECIMAL PRECISION



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10.52mm CHARACTER HEIGHT, 40 x 4 LCD MODULE,STN, WIDE TEMPERATURE, 12:00 VIEW, TRANSFLECTIVE.

\*\*THE SPECIFICATIONS MAY CHANGE AT ANY TIME WITHOUT NOTICE DUE TO NEW MATERIALS OR PRODUCT IMPROVEMENT.\*\*

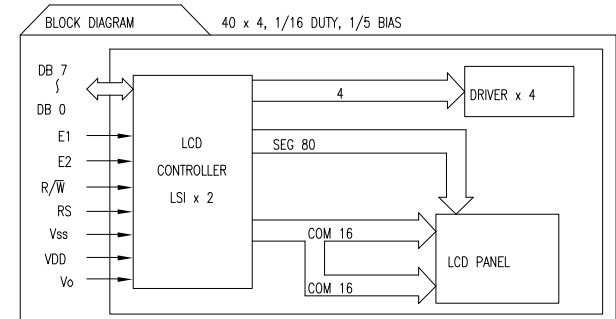
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DATE:	01.01.01	DRAWN BY:	JC
PAGE:	1 OF 2	CHKD BY:	JD
SCALE:	N/A	APRVD BY:	YA
UNIT:	mm [INCH]		

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-	SEE PAGE 1.		-

ABSOLUTE MAXIMUM RATINGS					
ITEM	SYMBOL	TEST CONDITION	STANDARD VALUE		UNIT
			MIN	MAX	
SUPPLY VOLTAGE FOR LOGIC	$V_D - V_{SS}$	$T_a=25^\circ\text{C}$	-0.3	7.0	V
SUPPLY VOLTAGE FOR LCD DRIVE	$V_D - V_o$	-	-0.3	12.0	V
INPUT VOLTAGE	$V_I$	$T_a=25^\circ\text{C}$	-0.3	$V_{DD}$	V
OPERATING TEMPERATURE	$T_{opr}$	LCM-H	-20	70	$^\circ\text{C}$
STORAGE TEMPERATURE	$T_{stg}$	LCM-H	-30	85	$^\circ\text{C}$

PIN CONFIGURATION			
PIN NO.	SYMBOL	LEVEL	FUNCTION
1	A	-	BACKLIGHT ANODE
2	K	-	BACKLIGHT CATHODE
3	E2	-	ENABLE 2
4	$V_o$	-	CONTRAST ADJUSTMENT
5	R/W	H/L	H: DATA READ L: DATA WRITE
6	N/C	-	NO CONNECTION
7	RS	-	REGISTER SELECT
8	$V_{SS}$	-	GROUND
9	E1	-	ENABLE 1
10	$V_{SS}$	-	GROUND
11	DB0	-	DATA BIT
12	$V_{SS}$	-	GROUND
13	DB1	-	DATA BIT
14	$V_{SS}$	-	GROUND
15	DB2	-	DATA BIT
16	$V_{SS}$	-	GROUND
17	DB3	-	DATA BIT
18	$V_{SS}$	-	GROUND
19	DB4	-	DATA BIT
20	$V_{SS}$	-	GROUND
21	DB5	-	DATA BIT
22	$V_{DD}$	-	+5VDC- PARALLEL WITH PIN 24
23	DB6	-	DATA BIT
24	$V_{DD}$	-	+5VDC- PARALLEL WITH PIN 22
25	DB7	-	DATA BIT
26	N/C	-	NO CONNECTION



ELECTRICAL CHARACTERISTICS						$V_{DD}=4.5\text{V to }5.5\text{V}, T=25^\circ\text{C}$	
ITEM	SYMBOL	CONDITION	STANDARD VALUE			UNIT	
			MIN.	TYP.	MAX.		
SUPPLY VOLTAGE FOR LOGIC	$V_D - V_{SS}$	-	4.5	5.0	5.5	V	
SUPPLY CURRENT FOR LOGIC	$I_{DD}$	$V_{DD}=5\text{V}$	-	6.0	10.0	mA	
INPUT VOLTAGE	HIGH	$V_{IH}$	2.2	-	$V_{DD}$	V	
	LOW	$V_{IL}$	0	-	0.6	V	
OUTPUT VOLTAGE	HIGH	$V_{OH}$	2.4	-	-	V	
	LOW	$V_{OL}$	-	-	0.4	V	
*LED BACKLIGHT	VOLTAGE	$V_f$	-	4.2	4.6	V	
	CURRENT	$I_f$	-	780	1020	mA	
	POWER CONSUMPTION	PD	-	3.3	5	W	
	LUMINOUS	L	$I_f=780\text{mA}$	80	120	$\text{cd/m}^2$	
COLOR	-	-	-	-	-	nm	

\*ONLY APPLIES TO MODULES WITH BACKLIGHT

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