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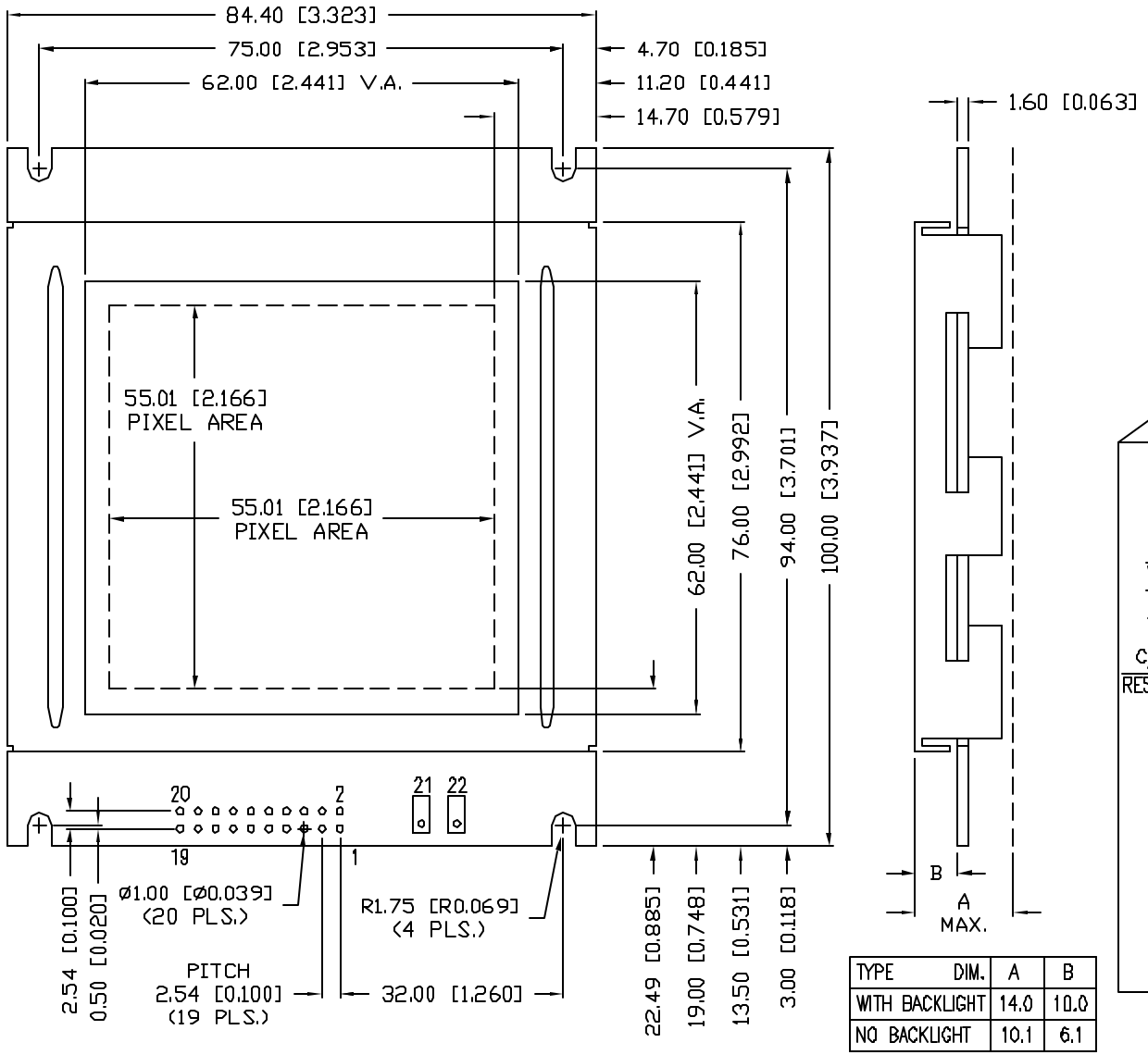
CAUTION: STATIC SENSITIVE DEVICE
FOLLOW PROPER E.S.D. HANDLING PROCEDURES
WHEN WORKING WITH THIS PART.

PART NUMBER	REV.
LCM-X128128GXX	

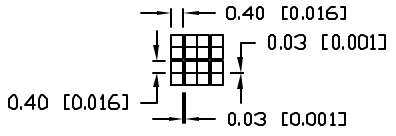
REV.	E.C.N. NUMBER AND REVISION COMMENTS	DATE



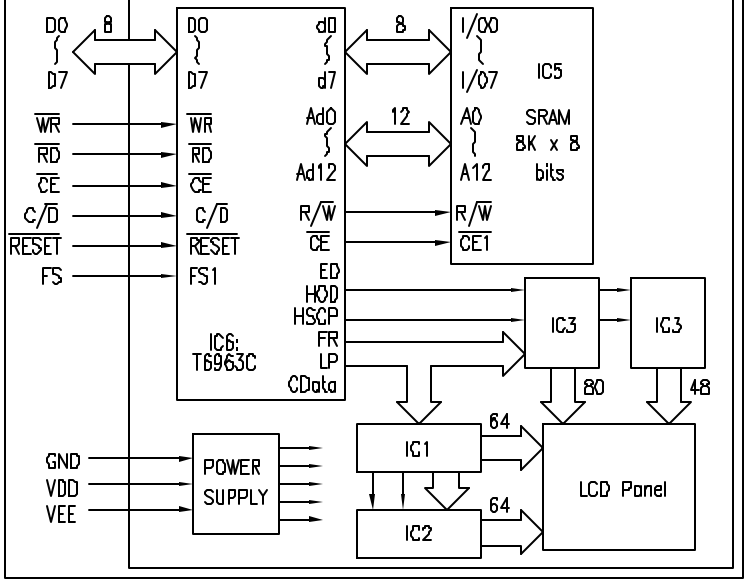
TYPE DIM.	A	B
WITH BACKLIGHT	14.0	10.0
NO BACKLIGHT	10.1	6.1

P/N PREFIX/SUFFIX TABLE			
LCM-X		GXX	DESCRIPTION
STANDARD	S	SR	STN, REFLECTIVE
HIGH TEMP.	H	SF	STN, TRANSFLECTIVE(W/ BACKLIGHT)

PIXEL DETAIL



BLOCK DIAGRAM — 128 x 128, 1/128 DUTY



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*UNLESS OTHERWISE SPECIFIED TOLERANCE IS ±0.25mm (±0.010")

REV.	PART NUMBER
	LCM-X128128GXX

128 x 128 DOT MATRIX , LCD GRAPHIC MODULE,
1/128 DUTY.

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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 INCORPORATED
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SA/DU			PAGE: 1 OF 2
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PART NUMBER	REV.
LCM-X128128GXX	

REV.	E.C.N. NUMBER AND REVISION COMMENTS	DATE

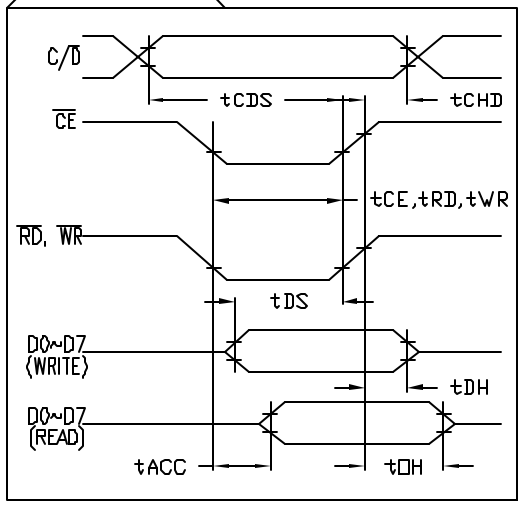
ELECTRIC MAXIMUM RATING

ITEM	SYMBOL	MIN	TYP	MAX	UNIT
POWER SUPPLY FOR LCD DRIVE	VDD-V0	0	-	22.0	V
POWER SUPPLY FOR LOGIC	VDD-VSS	0	-	7.0	V
INPUT VOLTAGE	VI	VSS	-	VDD	V

TIMING CHARACTERISTICS

PARAMETER	SYMBOL	MIN	MAX	UNIT
C/$\overline{D}$ SETUP TIME	tCDS	100	-	ns
C/$\overline{D}$ HOLD TIME	tCDH	10	-	ns
$\overline{CE}$, $\overline{RD}$, $\overline{WR}$ PULSE WIDTH	tCE, tRD, tWR	80	-	ns
DATA SETUP TIME	tDS	80	-	ns
DATA HOLD TIME	tDH	40	-	ns
ACCESS TIME	tACC	-	150	ns
OUTPUT HOLD TIME	tOH	10	50	ns

BUS TIMING



ELECTRO-OPTICAL CHARACTERISTICS

ITEM	SYMBOL	CONDITION	MIN	TYP	MAX	UNIT
POWER SUPPLY VOLTAGE FOR CIRCUIT	VDD-VSS	-	4.75	5.0	5.25	V
POWER SUPPLY VOLTAGE FOR LCD DRIVE	Vo-VSS	-	-2.0	-	-5.0	V
INPUT VOLTAGE NOTE (1)	VIH	HIGH LEVEL	VDD-2.2	-	VDD	V
	VIL	LOW LEVEL	0		0.8	V
OUTPUT VOLTAGE NOTE (1)	VOH	HIGH LEVEL	VDD-0.3	-	VDD	V
	VOL	LOW LEVEL	0		0.3	V
POWER SUPPLY CURRENT FOR LOGIC	IDD	VDD-VSS=5V Vo-VSS=-3.7V	-	9.0	-	mA
VIEWING AREA	ϕ2-ϕ1	K≥1.4	40	-	-	deg

*NOTE 1: APPLIED TO TERMINALS D0~D7, FS $\overline{RD}$, $\overline{CE}$, C/$\overline{D}$, $\overline{RESET}$, $\overline{WR}$.

PIN CONFIGURATION

PIN #	SYMBOL	LEVEL	FUNCTION
1	FGND	-	FRAME GROUND (CONNECTED TO METAL BEZEL)
2	GND	-	SIGNAL GROUND
3	VDD	-	POWER SUPPLY (+5V)
4	Vo	-	POWER SUPPLY FOR LCD DRIVER
5	$\overline{WR}$	L	DATA WRITE
6	$\overline{RD}$	L	DATA READ
7	$\overline{CE}$	L	CHIP ENABLE
8	C/$\overline{D}$	H/L	$\overline{WR}$="L", C/$\overline{D}$="H": COMMAND WRITE C/$\overline{D}$="L": DATA WRITE $\overline{RD}$="L", C/$\overline{D}$="H": COMMAND READ C/$\overline{D}$="L": DATA READ
9	N/C	-	NO CONNECTION
10	$\overline{RESET}$	L	CONTROL RESET (MODULE RESET)
11~18	DD~D7	H/L	DATA BUS
19	FS	H/L	FONT SELECT "H": 6 x 8 PIXEL/FONT "L": 8 x 8 PIXEL/FONT
20	N/C	-	NO CONNECTION

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