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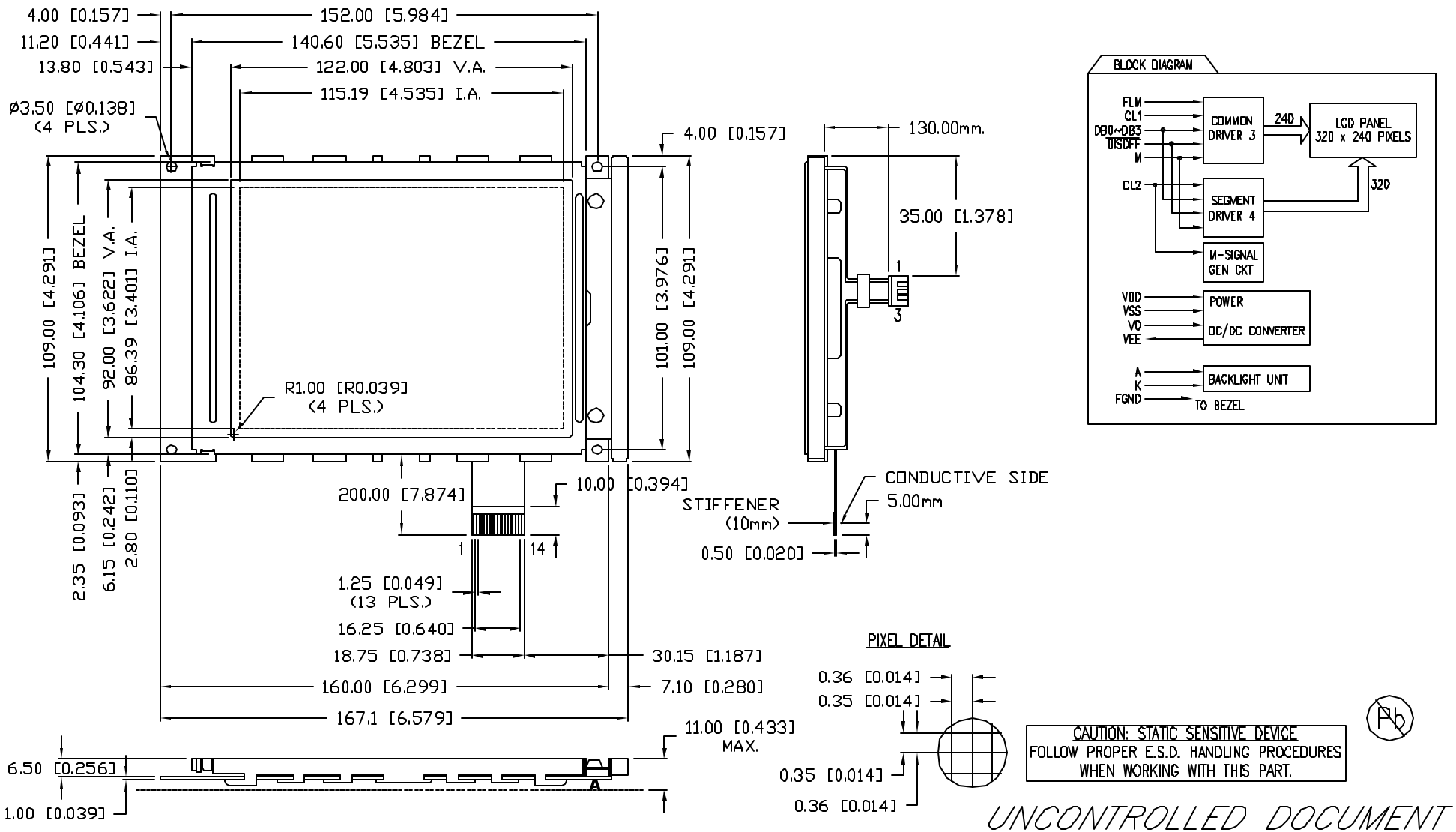
PART NUMBER	REV.
LCM-S320240GSN/B-C	



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

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REV.	PART NUMBER	CONFIDENTIAL INFORMATION	LUMEX INC.	290 E. HELEN ROAD PALATINE, IL 60067-6976 PHONE: +1.847.359.2790 US WEB: www.lumex.com TW WEB: www.lumex.com.tw
	LCM-S320240GSN+B-C	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.		

320 x 240 DOT MATRIX, 1/4 VGA GRAPHIC MODULE,
DC-DC, 1/240 DUTY. NEGATIVE IMAGE WITH CCFL BACKLIGHT.

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.

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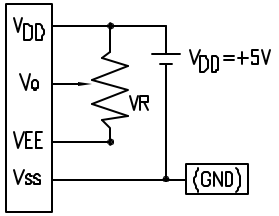
JC			

PIN CONFIGURATION

PIN NO.	SYMBOL	LEVEL	FUNCTION
1~4	D0~D3	H/L	DATA BUS
5	$\overline{DISP.OFF}$	H/L	H: ON, L: OFF
6	FLM	H	THE FLM SIGNAL INDICATES THE BEGINNING OF EACH DISPLAY CYCLE.
7	NC	-	-
8	CL1	H->L	DATA LATCH PULSE
9	CL2	H->L	DATA SHIFT CLOCK PULSE
10	V_{DD}	-	POWER SUPPLY FOR LOGIC CIRCUIT
11	Vss	-	GND
12	V_{EE}	-	POWER SUPPLY FOR LCD DRIVING CIRCUIT
13	Vo	-	LCD CONTRAST VOLTAGE
14	FGND	-	FRAME

V_{DD}-Vo: LCD DRIVING VOLTAGE
VR: 10KΩ -20KΩ



ELECTRICAL CHARACTERISTICS

ITEM		SYMBOL	CONDITION	STANDARD VALUE			UNIT
				MIN.	TYP.	MAX.	
SUPPLY VOLTAGE FOR LOGIC		V_{DD}-Vss	-	4.75	5.0	5.5	V
SUPPLY CURRENT FOR LOGIC		I_{DD}	NOTE 1	-	16.0	25	mA
SUPPLY VOLTAGE FOR LCD DRIVER		V_{EE}-Vss	-	22.4	23.5	24.3	V
SUPPLY CURRENT FOR LCD		I_{EE}	NOTE 1	-	5.0	-	mA
INPUT VOLTAGE*	HIGH	V_{IH}	-	2.2	-	VDD	V
	LOW	V_{IL}	-	-	-	0.6	V
CCFL DRIVING VOLTAGE		V_{CCFL}	Ta=25°C	-	300	-	V_{rms}
CCFL FREQUENCY		f_{CCFL}	-	-	70	85	KHz
CCFL CURRENT		I_{CCFL}	Ta=25°C	4	5	6	mA
CCFL STARTING DISCHARGE VOLTS		-	Ta=5°C	1000	-	-	V
BRIGHTNESS		-	SURFACE AREA	-	80	-	cd/m^2
CCFL OPERATING LIFETIME		-	Ta=25°C	-	10K	-	HOURS

NOTE 1: V_{DD}-Vss=5.0V
V_{DD}-Vo=23.5V

*APPLIED TO TERMINALS FLM, CL1, CL2, D0~D3, $\overline{DISPOFF}$.

ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	TEST CONDITION	STANDARD VALUE		UNIT
			MIN	MAX	
SUPPLY VOLTAGE FOR LOGIC	V_{DD}-Vss	Ta=25°C	-	7.0	V
SUPPLY VOLTAGE FOR LCD DRIVE	V_{DD}-Vo	Ta=25°C	-	30	V
INPUT VOLTAGE	V_I	Ta=25°C	Vss	V_{DD}	V
OPERATING TEMPERATURE	Topr	LCM-S	0	50	°C
STORAGE TEMPERATURE	Tstg	LCM-S	-20	70	°C

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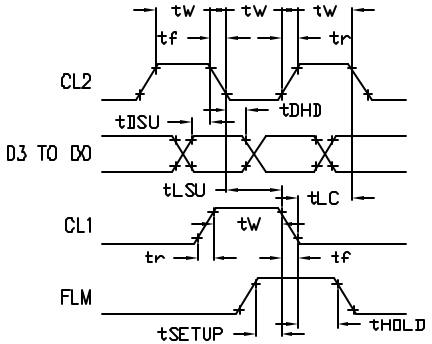
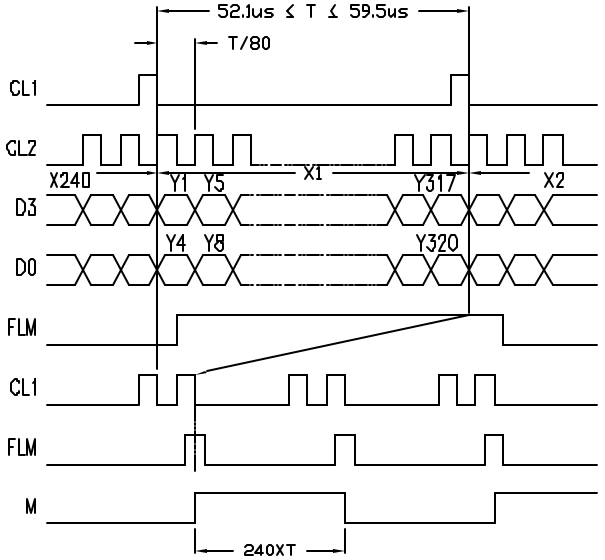
			SCALE: N/A

TIMING SPECIFICATIONS

PARAMETER	SYMBOL	MIN	MAX	UNIT
CLOCK FREQUENCY	fCP	-	8	MHz
CLOCK PULSE WIDTH	tW	45	-	ns
RISE, FALL TIME	tR, tF	-	15	ns
DATA SET-UP TIME	tDSU	20	-	ns
DATA HOLD TIME	tDHD	20	-	ns
CL1 SET-UP TIME	tLSU	80	-	ns
CL1 -> CL2 TIME	tLC	80	-	ns
FLM SET-UP TIME	tsetup	100	-	ns
FLM HOLD TIME	thold	100	-	ns
M DELAY TIME	tDF	-	300	ns





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