

UNCONTROLLED DOCUMENT

SC:1.5

PART NUMBER  
LCM-H16036GSF-Y

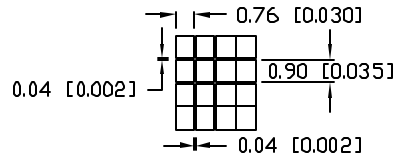
REV.

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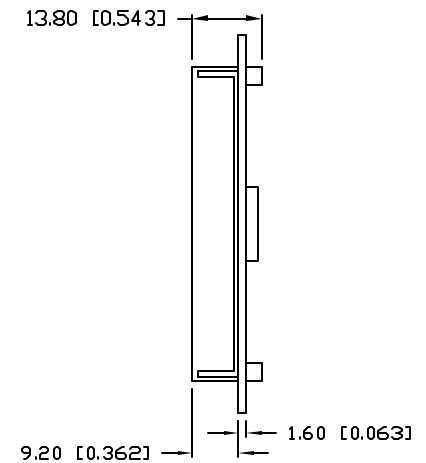
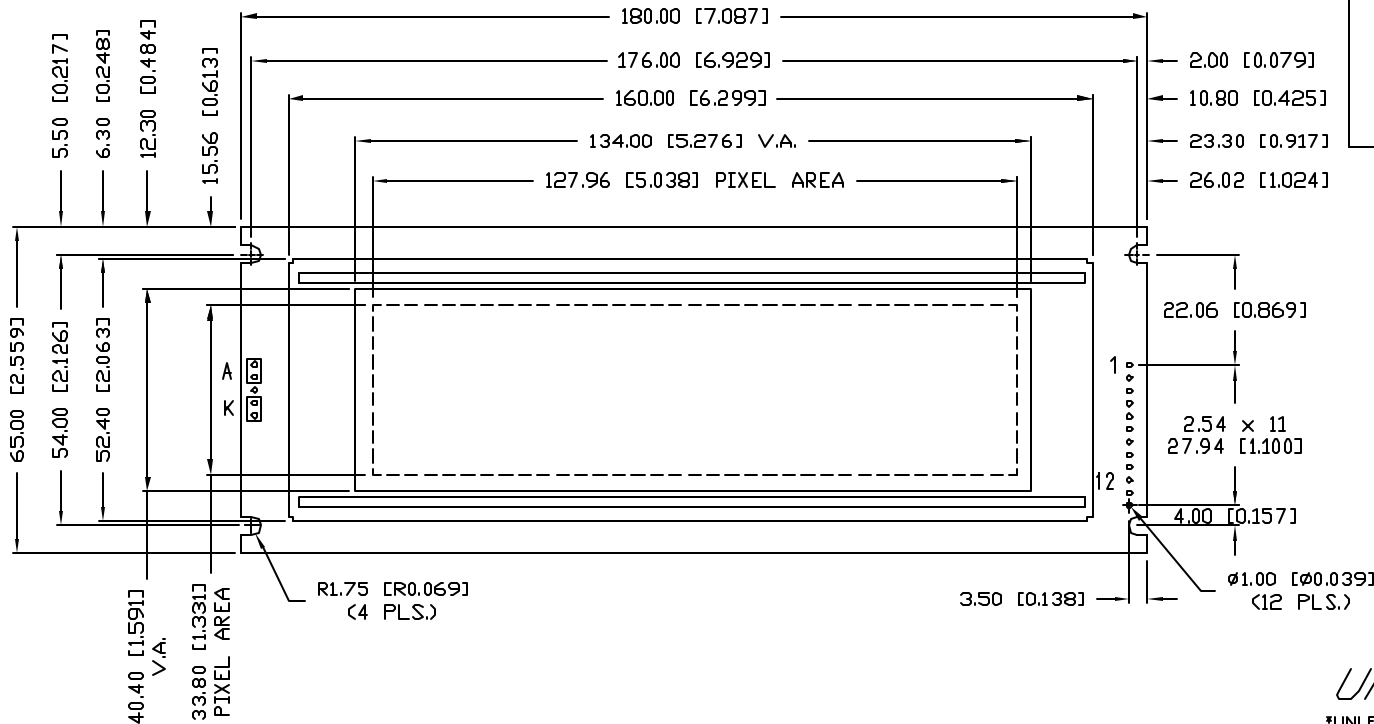
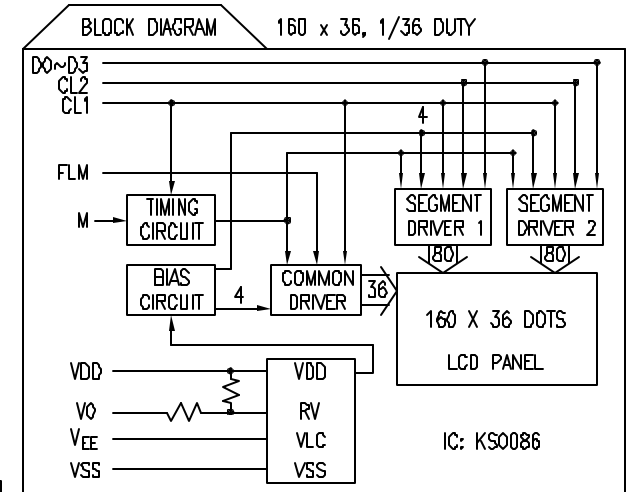
UNDER REVISION

REV.	E.C.N. NUMBER AND REVISION COMMENTS	DATE
A	E.C.N. #10551./	9-8-99

PIXEL DETAIL



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



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

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**LUMEX**  
INCORPORATED

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160 x 36 DOT MATRIX GRAPHIC MODULE, STN YELLOW, TRANSFLECTIVE, W/LED BACKLIGHT, NEGATIVE CHARGE PUMP, EXTENDED OP. TEMP., 1/36 DUTY, POTENTIOMETER ON BOARD.

**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:	CHECKED BY:	APPROVED BY:	DATE: 4-28-99
SA/DU			PAGE: 1 OF 2
			SCALE: N/A

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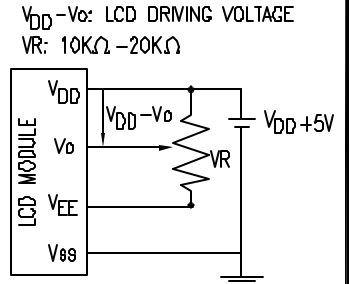
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SC:1

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	SEE PAGE #1.	

ELECTRICAL CHARACTERISTICS						
ITEM	SYMBOL	CONDITION	MIN	TYP	MAX	UNIT
POWER SUPPLY VOLTAGE FOR LOGIC	VDD-VSS	-	4.75	5.0	5.25	V
INPUT VLTAGE NOTE 1	VIH	HIGH LEVEL	0.8*VDD	-	-	V
	VIL	LOW LEVEL	-	-	0.2*VDD	V
POWER SUPPLY CURRENT FOR LOGIC	IDD	VDD-VSS=5V	-	5.5	-	mA
RECOMMENDED LCD DRIVING VOLTAGE NOTE 2	VDD-Vo	Ta=0°C	-	14.9	-	V
		Ta=25°C	-	13.0	-	V
		Ta=50°C	-	12.5	-	V
FLM FREQUENCY	fFLM	-	70	75	80	Hz
LED BACKLIGHT	VOLTAGE	Vf	-	5.0	5.4	V
	CURRENT	If	-	T.B.A.	T.B.A.	mA
	POWER CONSUMPTION	PD	-	-	T.B.A.	mW
	LUMINOUS	L	-	70	-	cd/m <sup>2</sup>
	COLOR	-	-	-	-	-

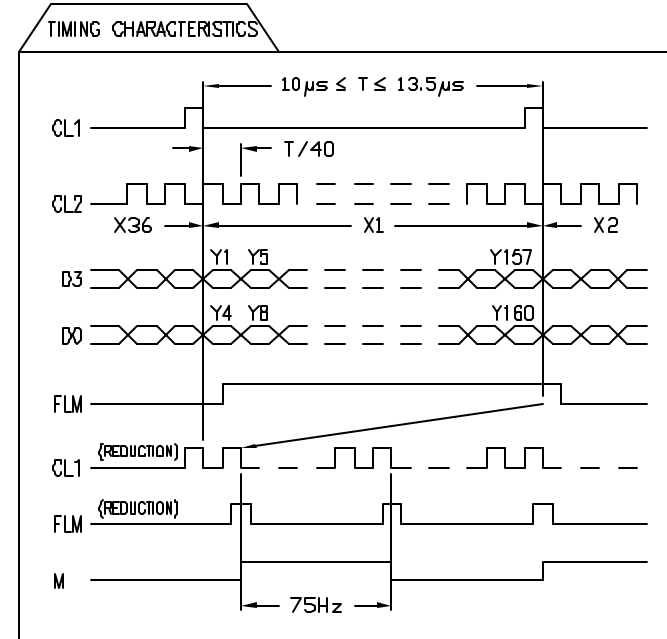
ABSOLUTE MAXIMUM RATINGS					
ITEM	SYMBOL	MIN	MAX	UNITS	
POWER SUPPLY FOR LOGIC	VDD-VSS	0	7.0	V	
INPUT VOLTAGE	VI	VSS	VDD	V	
OPERATING TEMPERATURE	Topr	-20	70	°C	
STORAGE TEMPERATURE	Tstg	-30	85	°C	



NOTE (1): APPLIED TO TERMINALS D0~D3, M, FLM, CL1, CL2.  
NOTE (2): RECOMMENDED LCD DRIVING VOLTAGE MAY FLUCTUATE ABOUT ±1.0V BY EACH MODULE.

PIN CONFIGURATION			
PIN NO.	SYMBOL	LEVEL	FUNCTION
1	Vss	-	POWER SUPPLY GND (0V) 5V FOR LCD DRIVE
2	VDD	-	
3	Vo	-	
4	FLM	H->L	FLM INDICATES THE BEGINNING OF EACH CYCLE
5	CL1	H->L	CONTROL SIGNAL FOR LATCHING DATA
6	CL2	H->L	CONTROL SIGNAL FOR SHIFTING DATA
7	M	H->L	ALTERNATE CONTROL SIGNAL
8~11	D0~D3	H/L	DATA BITS
12	VEE	H/L	OUTPUT VOLTAGE FOR LCD DRIVING
A	-	-	ANODE LED BACKLIGHT
K	-	-	CATHODE LED BACKLIGHT

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