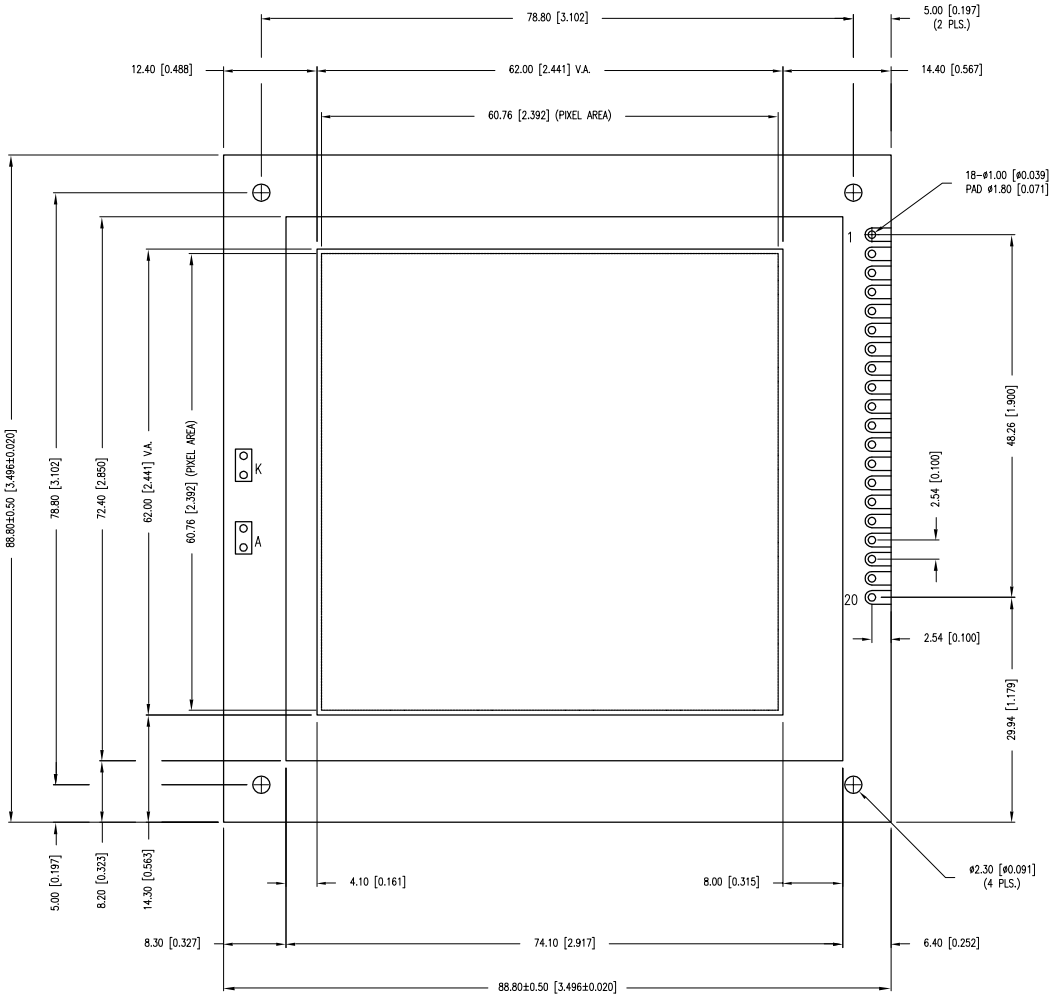
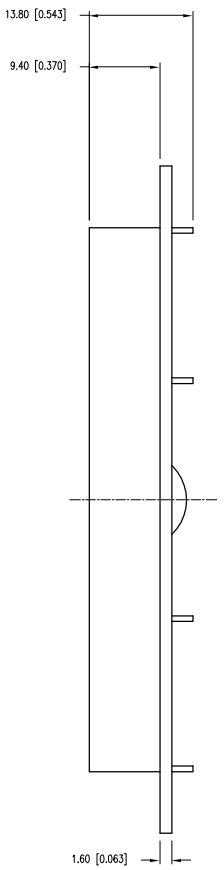
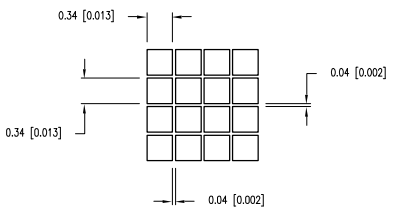
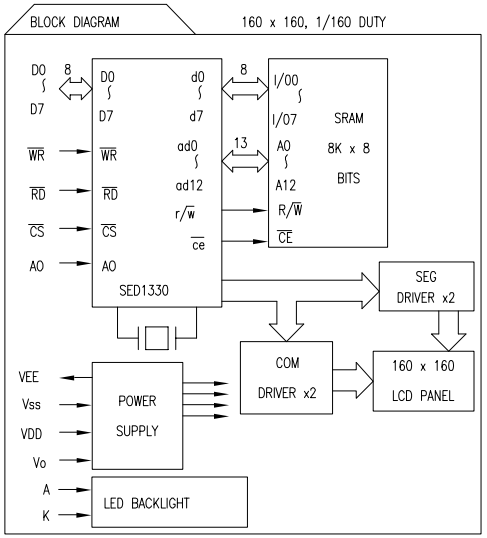
PART NUMBER	LCM−H160160GSF	REV.





PIXEL 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= $^{+\text{DECIMAL PRECISION}}_{-0.00}$ MAX.= $^{+0.00}_{-\text{DECIMAL PRECISION}}$

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LUMEX®
Creating LED and LCD Solutions Together™
290 E. HELEN ROAD
PALATINE, IL 60067−6976
PHONE: +1.847.359.2790
FAX: +1.847.359.6538
WEB: WWW.LUMEX.COM

160 x 160 DOT MATRIX GRAPHIC MODULE, 1/160 DUTY, STN WITH NEGATIVE CHARGE PUMP.

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

DATE:	06.01.10	DRAWN BY:	JH
PAGE:	1 OF 2	CHKD BY:	BC
SCALE:	N/A	APRVD BY:	SA
UNIT:	mm [INCH]		

PIN CONFIGURATION

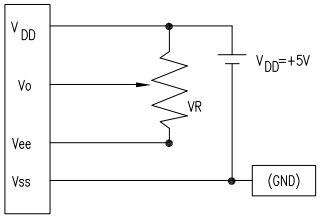
PIN NO.	SYMBOL	LEVEL	FUNCTION	
1	Vss	0V	GND	
2	V_{DD}	5V	SUPPLY VOLTAGE FOR LOGIC	
3	Vo	–	CONTRAST VOLTAGE FOR LCD DRIVE(VARIABLE)	
4	$\overline{RD}$	L	READ SIGNAL	
5	$\overline{WR}$	L	WRITE SIGNAL	
6	$\overline{CS}$	L	CHIP SELECT	
7	A0	H/L	DATA TYPE SELECT	
8~15	DB0~DB7	H/L	DATA BUS	
16	$\overline{RES}$	L	RESET SIGNAL (NOTE 1)	
17	VEE	–	POWER SUPPLY VOLTAGE FOR LCD	
18	A	4.2V	ANODE	LED BACKLIGHT
19	K	–	CATHODE	LED BACKLIGHT
20	(N/C)	–	NO CONNECTION	

NOTES:

1. $\overline{RES}$ IS A SCHMITT TRIGGER INPUT. THE PULSEWIDTH ON RES MUST BE AT LEAST 200µs. PULSES ~~OF MO~~RE THAN A FEW SECONDS WILL CAUSE DC VOLTAGES TO BE APPLIED TO THE LCD PANEL.

V_{DD}-Vo: LCD DRIVING VOLTAGE

VR: 10KΩ-20KΩ



ELECTRICAL CHARACTERISTICS V_{DD}=4.75V to 5.25V, T_A=25°C

ITEM			SYMBOL	CONDITION	STANDARD VALUE			UNIT
					MIN.	TYP.	MAX.	
SUPPLY VOLTAGE FOR LOGIC			V_{DD}-Vss	–	4.75	5.0	5.25	V
SUPPLY VOLTAGE FOR LCD DRIVE			V_{DD}-VEE	–	–	18.2	–	V
SUPPLY CURRENT FOR LOGIC			I_{DD}	–	–	–	20	mA
INPUT VOLTAGE		HIGH	V_{IH}	–	0.2	–	V_{DD}	V
		LOW	V_{IL}	–	0	–	0.8	V
OUTPUT VOLTAGE		HIGH	V_{OH}	I_{OH}=-3.0mA	2.4	–	–	V
		LOW	V_{OL}	I_{OL}=3.0mA	–	–	0.4	V
LED BACKLIGHT	VOLTAGE		Vf	If=560mA	–	4.2	4.5	V
	CURRENT		If	–	–	560	–	mA
	POWER CUNSUMPTION		PD	–	–	2.8	–	W
	LUMINOUS		L	If=560mA	60	–	–	cd/m^2
	COLOR		–	–	–	570	–	nm

ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	TEST CONDITION	STANDARD VALUE		UNIT
			MIN	MAX	
SUPPLY VOLTAGE FOR LOGIC	V_{DD}-Vss	Ta=25°C	0	7.0	V
SUPPLY VOLTAGE FOR LCD DRIVE	V_{DD}-VEE	–	17.2@40°C	19.2@0°C	V
INPUT VOLTAGE	V_I	Ta=25°C	Vss	V_{DD}	V
OPERATING TEMPERATURE	Topr	LCM-H	-20	70	°C
STORAGE TEMPERATURE	Tstg	LCM-H	-30	85	°C

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