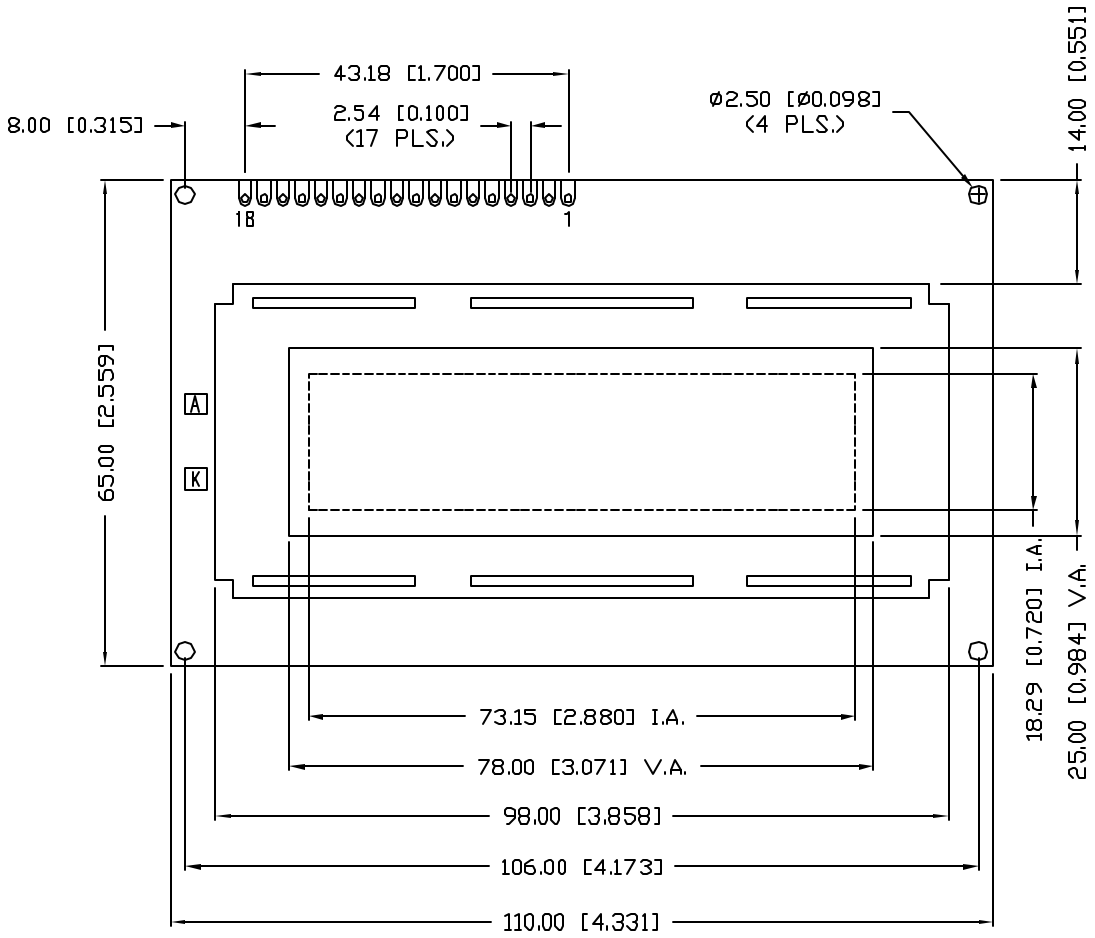
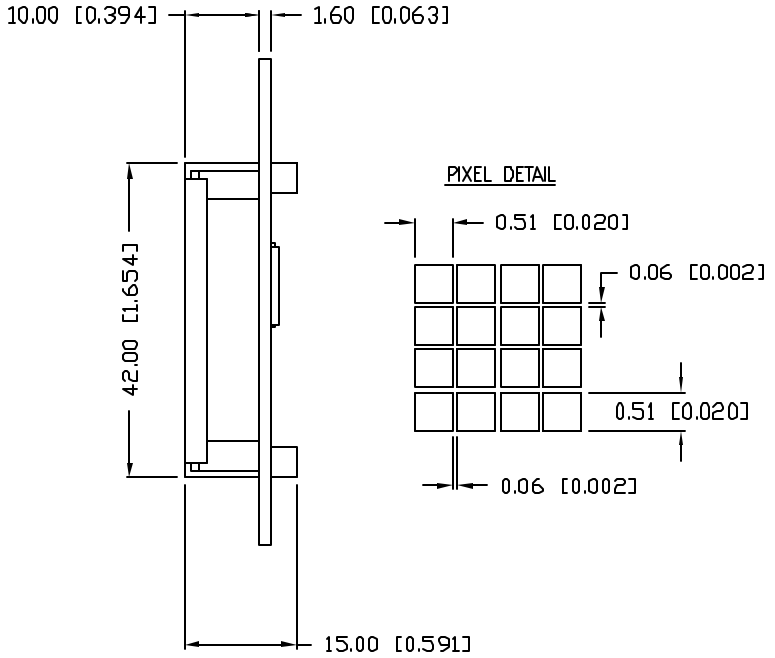
UNCONTROLLED DOCUMENT

SC:1	PART NUMBER	REV.
	LCM-S12832GSF-Y	

PRELIMINARY IN P/N DIR





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*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 MAX.= +0.00 -DECIMAL PRECISION

REV.	PART NUMBER	CONFIDENTIAL INFORMATION	LUMEX	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-S12832GSF-Y	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.		
128 x 32 DOT MATRIX GRAPHIC LCD MODULE, TRANSFLECTIVE, STN YELLOW, 1/32 DUTY, 1/6.7 BIAS.		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: SA/CT CHECKED BY: APPROVED BY:	DATE: 3.24.01 PAGE: 1 OF 2 SCALE: N/A

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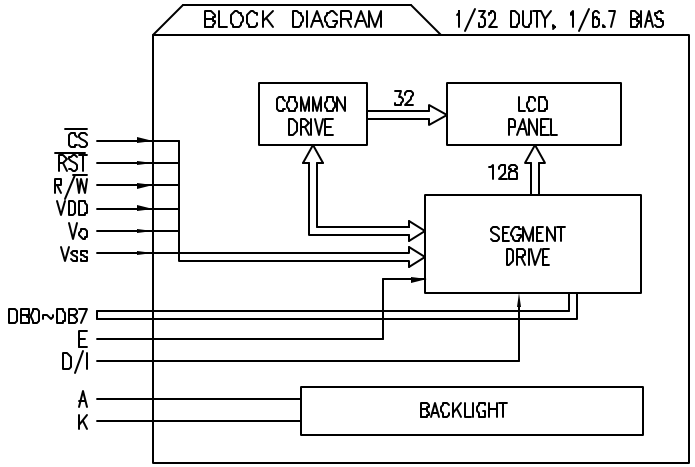
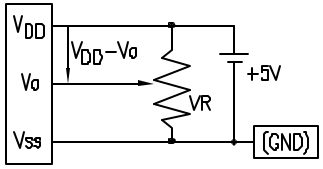
PRELIMINARY IN P/N DIR

BLOCK DIAGRAM 1/32 DUTY, 1/6.7 BIAS



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



PIN CONFIGURATION

PIN NO.	SYMBOL	LEVEL	FUNCTION	
1	V_O	–	POWER SUPPLY	FOR LCD DRIVE
2	V_{DD}	–		5V
3	Vss	–		GND (0V)
4	E	H/L	ENABLE SIGNAL (NO PULL-UP RESISTOR)	
5	D/I	H/L	REGISTER SELECT SIGNAL H: DATA INPUT L: INSTRUCTION INPUT	
6	R/W	H/L	H: DATA READ (MODULE-->MPU) L: DATA WRITE (MODULE<--MPU)	
7	RST	L	RESET SIGNAL	
8	CS	L	CHIP SELECT SIGNAL	
9~16	DB0~DB7	H/L	DATA BUS	
17	K	–	CATHODE	LED BACKLIGHT
18	A	–	ANODE	LED BACKLIGHT

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 CURRENT FOR LOGIC		I_{DD}	V_{DD}=5V	–	8.0	–	mA
INPUT VOLTAGE	HIGH	V_{IH}	–	0.7*VDD	–	V_{DD}	V
	LOW	V_{IL}	–	0	–	0.3*VDD	V
*LED BACKLIGHT	VOLTAGE	Vf	If=1200mA	–	5.0	–	V
	CURRENT	If	–	–	1200	–	mA
	POWER CUNSUMPTION	PD	–	–	6000	–	mW
	LUMINOUS	L	If=1200mA	60	90	–	cd/m²
	COLOR	–	–	–	–	–	nm

*ONLY APPLIES TO MODULES WITH BACKLIGHT

ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	TEST CONDITION	STANDARD VALUE		UNIT
			MIN	MAX	
SUPPLY VOLTAGE FOR LOGIC	VDD-Vss	Ta=25°C	–	7.0	V
SUPPLY VOLTAGE FOR LCD DRIVE	VDD-Vo	–	10.8@40°C	12.4@0°C	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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