

UNCONTROLLED DOCUMENT

PART NUMBER

LCM-H128128GCFN-15

REV.

A

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

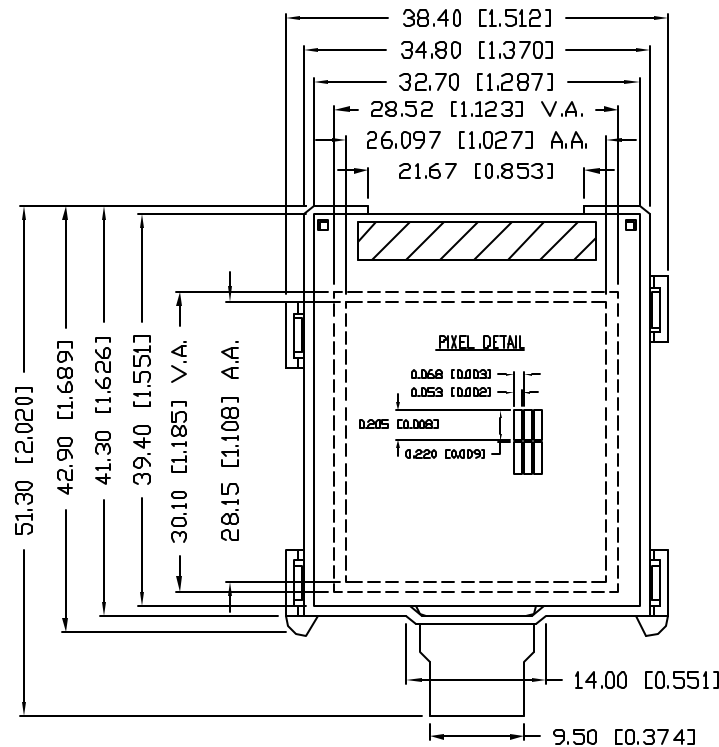
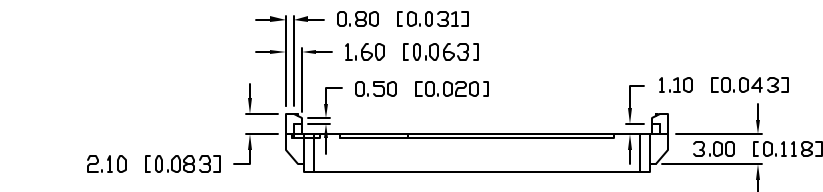
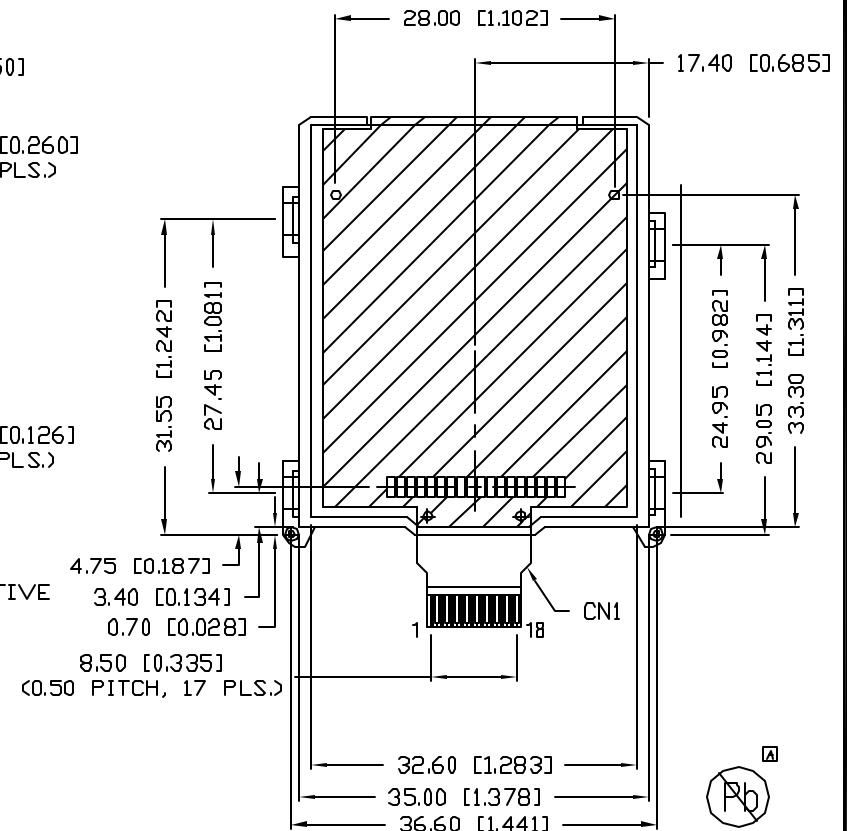
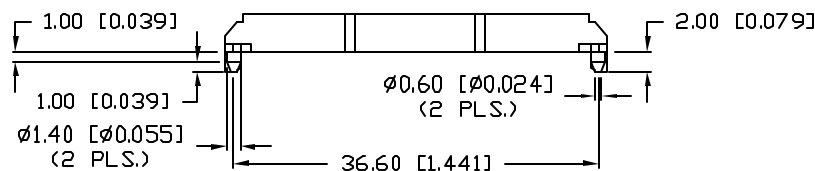
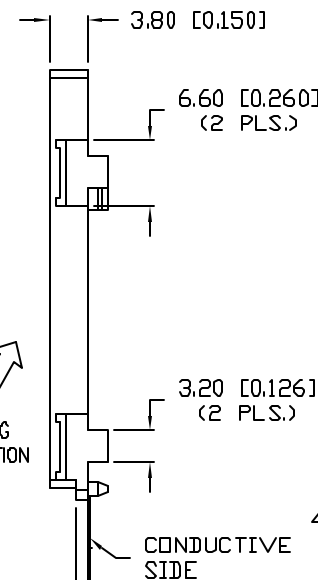
DATE

A E.C.N. #11148.

4.20.07

## NOTES:

1. CN1: FPC PITCH 0.50mm.  
RECOMMEND MOLEX CONNECTOR 54550-1890 OR EQUIVALENT.

VIEWING  
DIRECTION

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REV.

A

PART NUMBER

LCM-H128128GCFN-15

1.5" 128 x 128 CSTN MODULE, TRANSFLECTIVE (NEGATIVE),  
WHITE LED BACKLIGHT, GLARE UPPER POLARIZER,  
1/132 DUTY, 6 O'CLOCK VIEW, WEIGHT: 7.6g.

## CONFIDENTIAL INFORMATION

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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.



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CHECKED BY:

APPROVED BY:

DATE: 1.26.04

PAGE: 1 OF 3

SCALE: N/A

## PIN CONFIGURATION

PIN NO.	SYMBOL	LEVEL	FUNCTION
1	RES	L	RESET INPUT PIN
2	CS	H	CHIP SELECT
3	RS	H/L	(L) CONTROL, (H) DISPLAY
4	WR	L	WRITE SIGNAL INPUT LEAD
5~12	DB0~DB7	H/L	BIDIRECTIONAL PARALLEL DATA BUS
13	VDD	-	POWER SUPPLY FOR LOGIC AND BOOSTER
14	VSS	-	GROUND
15	VLED1-	-	CATHODE LEAD FOR LED 1
16	VLED2-	-	CATHODE LEAD FOR LED 2
17	VLED+	-	ANODE LEAD FOR WHITE LED
18	VLCD	-	LCD VOLTAGE OUTPUT

## ELECTRICAL CHARACTERISTICS

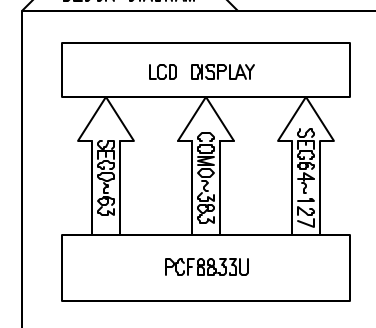
ITEM	SYMBOL	CONDITION	STANDARD VALUE			UNIT
			MIN.	TYP.	MAX.	
SUPPLY VOLTAGE FOR LOGIC	V <sub>DD</sub>	-	2.4	3.0	3.3	V
SUPPLY CURRENT FOR LOGIC	I <sub>DD</sub>	V <sub>DD</sub> =3.0V	-	3.0	3.3	mA
INPUT VOLTAGE	HIGH	V <sub>IH</sub>	-	0.8*V <sub>DD</sub>	-	V <sub>DD</sub>
	LOW	V <sub>IL</sub>	-	0	-	0.2*V <sub>DD</sub>
LED BACKLIGHT	VOLTAGE	V <sub>LED</sub>	-	-	3.2	3.7
	CURRENT	I <sub>LED1</sub>	-	-	20	22
		I <sub>LED2</sub>	-	-	20	22
	COLOR	-	-	-	WHITE	-
	BRIGHTNESS	-	-	-	40	-

## ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	TEST CONDITION	STANDARD VALUE		UNIT
			MIN	MAX	
SUPPLY VOLTAGE FOR LOGIC	V <sub>DD</sub> -V <sub>SS</sub>	T <sub>a</sub> =25°C	-0.3	4.0	V
SUPPLY VOLTAGE FOR LCD DRIVE	V <sub>LCD</sub> -V <sub>SS</sub>	T <sub>a</sub> =25°C	-0.3	18.0	V
INPUT VOLTAGE	V <sub>I</sub>	T <sub>a</sub> =25°C	-0.4	V <sub>DD</sub> +0.5	V
CURRENT OF LED 1	I <sub>LED1</sub>	T <sub>a</sub> =25°C	0	25	mA
CURRENT OF LED 2	I <sub>LED2</sub>	T <sub>a</sub> =25°C	0	25	mA
OPERATING TEMPERATURE	T <sub>opr</sub>	-	-20	70	°C
STORAGE TEMPERATURE	T <sub>stg</sub>	-	-30	80	°C

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-0.00 -DECIMAL PRECISION

## BLOCK DIAGRAM



1.5" 128 x 128 CSTN MODULE, TRANSFLECTIVE (NEGATIVE),  
WHITE LED BACKLIGHT, GLARE UPPER POLARIZER,  
1/132 DUTY, 6 O'CLOCK VIEW, WEIGHT: 7.6g.

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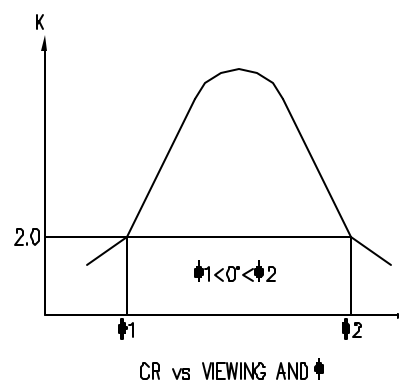
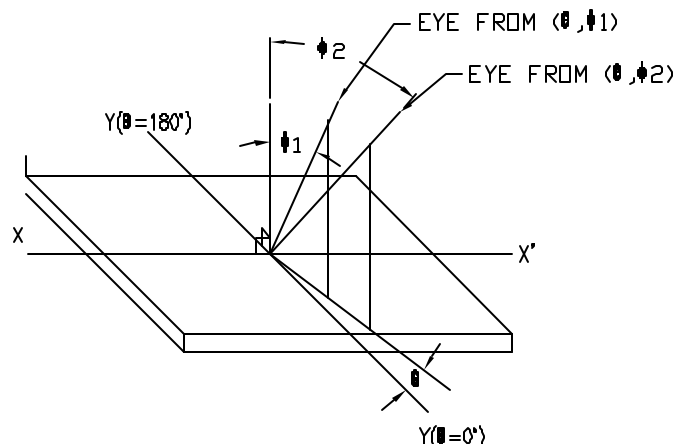
PAGE: 2 OF 3

SCALE: N/A

OPTICAL CHARACTERISTICS		T <sub>a</sub> =25°C (BACKLIGHT ON)						
ITEM		SYMBOL	CONDITION		STANDARD VALUE			UNIT
					MIN.	TYP.	MAX.	
VIEWING ANGLE RANGE (TRANSMISSIVE MODE)		φ1, φ2	θ=0° K≥3	X-AXIS Y-AXIS	-35 -35	- -	35 35	DEG.
CONTRAST RATIO	REFLECTIVE	CR	θ=0°, φ=0°		5.0	7.0	-	-
	TRANSMISSIVE				12.0	15.0	-	
COLOR GAMUT		CG	θ=0°, φ=0°		9.0	-	-	%
REFLECTION		RF	θ=0°, φ=0°		7.0	-	-	%
CHROMATICITY COORDINATES		R	X	θ=0°, φ=0°	0.37	0.42	0.47	-
			Y		0.23	0.28	0.33	-
		G	X		0.26	0.31	0.36	-
			Y		0.34	0.39	0.44	-
		B	X		0.15	0.20	0.25	-
			Y		0.15	0.20	0.25	-
		W	X		0.26	0.31	0.36	-
			Y		0.26	0.31	0.36	-
RESPONSE TIME	NOTE 1,2	T <sub>r</sub> +T <sub>f</sub>			-	300	350	ms

## NOTES:

1. THE TIME THAT THE LUMINANCE LEVEL REACHES 90% OF FULL BRIGHTNESS LEVEL FROM 0% WHEN "ON" SIGNAL IS APPLIED.
2. THE TIME THAT THE LUMINANCE LEVEL REACHES 10% OF FULL BRIGHTNESS LEVEL FROM 100% WHEN "OFF" SIGNAL IS APPLIED.



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SCALE: N/A

# Mouser Electronics

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