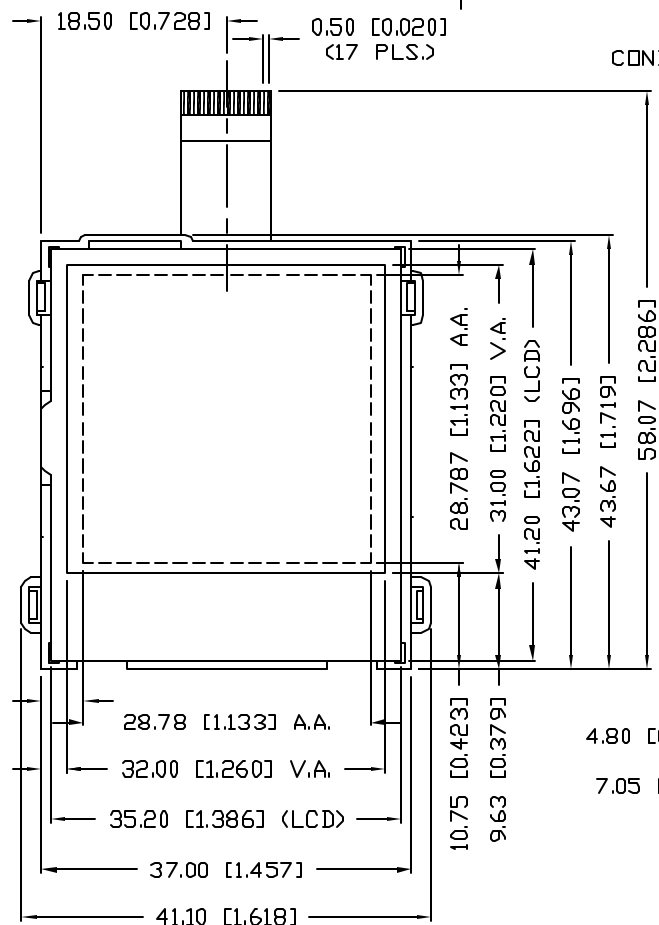
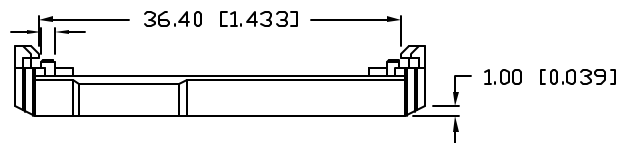
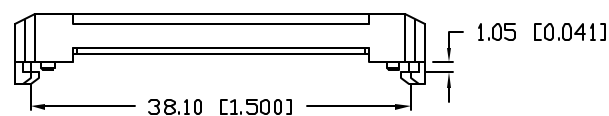


UNCONTROLLED DOCUMENT

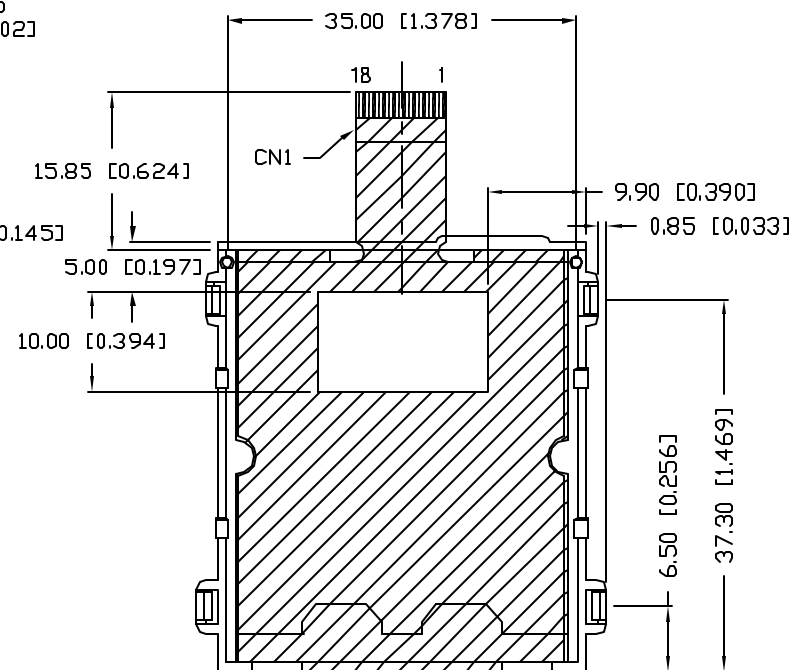
Ø1.30 [Ø0.051]
(2 PLS.)



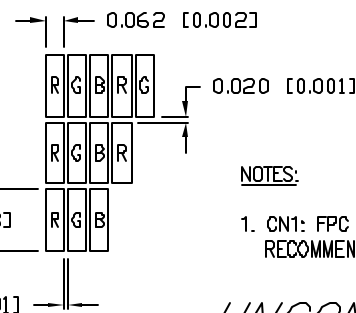
CONDUCTOR

VIEWING
DIRECTION

0.30±0.05
[0.012±0.002]



PIXEL DETAIL



NOTES:

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

A



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REV.

A

PART NUMBER

LCM-H128128GCN-16

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RELIABILITY NOTE

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DRAWN BY:

JC

CHECKED BY:

APPROVED BY:

DATE: 1.21.04

PAGE: 1 OF 3

SCALE: N/A

1.6" 128 x 128 CSTN MODULE, TRANSMISSIVE (NEGATIVE),
-20°C TO +70°C OPERATING TEMPERATURE, WIEGHT: 9g,
GLARE UPPER POLARIZER, 1/32 DUTY, 6:00 VIEW.

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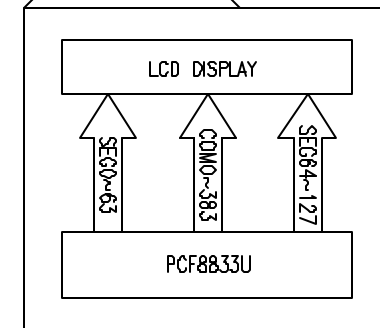
REV. E.C.N. NUMBER AND REVISION COMMENTS

DATE

A SEE PAGE #1

PIN CONFIGURATION			
PIN NO.	SYMBOL	LEVEL	FUNCTION
1	VLED1+	-	LED1 BACKLIGHT ANODE
2	VLED-	-	BACKLIGHT CATHODE
3	VLED2+	-	LED2 BACKLIGHT ANODE
4	VDD	-	POWER SUPPLY FOR LOGIC AND BOOSTER
5	VSS	-	GROUND
6	RST	H	RESET SIGNAL
7	\overline{CS}	L	CHIP SELECT
8	RS	H/L	(L): CONTROL DATA, (H): DISPLAY DATA
9	\overline{RD}	L	READ DATA
10	R/W	H/L	READ/WRITE DATA ENABLE
11~18	DB0~DB7	H/L	PARALLEL DATA BUS

BLOCK DIAGRAM



ELECTRICAL CHARACTERISTICS		$V_{DD}=4.7V$ to $5.3V$, $T_A=25^\circ C$				
ITEM	SYMBOL	CONDITION	STANDARD VALUE			UNIT
SUPPLY VOLTAGE FOR LOGIC	V_{DD}	-	2.4	3.0	3.3	V
SUPPLY CURRENT FOR LOGIC	I_{DD}	$V_{DD}=3.0V$	-	2.9	3.3	mA
INPUT VOLTAGE	HIGH	V_{IH}	-	$0.8 \cdot V_{DD}$	-	V_{DD}
	LOW	V_{IL}	-	0	-	$0.2 \cdot V_{DD}$
LED BACKLIGHT	VOLTAGE	V_{LED1}	-	-	3.2	3.7
		V_{LED2}	-	-	3.2	3.7
	CURRENT	I_{LED1}	-	-	20	22
		I_{LED2}	-	-	20	22
	COLOR	-	-	-	WHITE	-
	BRIGHTNESS	-	-	-	40	-

ABSOLUTE MAXIMUM RATINGS					
ITEM	SYMBOL	TEST CONDITION	STANDARD VALUE		UNIT
SUPPLY VOLTAGE FOR LOGIC	$V_{DD}-V_{SS}$	$T_A=25^\circ C$	-0.3	4.0	V
SUPPLY VOLTAGE FOR LCD DRIVE	$V_{LCD}-V_{SS}$	$T_A=25^\circ C$	-0.3	18.0	V
INPUT VOLTAGE	V_I	$T_A=25^\circ C$	-0.4	$V_{DD}+0.5$	V
CURRENT OF LED 1	I_{LED1}	$T_A=25^\circ C$	0	25	mA
CURRENT OF LED 2	I_{LED2}	$T_A=25^\circ C$	0	25	mA
OPERATING TEMPERATURE	T_{opr}	-	-20	70	$^\circ C$
STORAGE TEMPERATURE	T_{stg}	-	-30	80	$^\circ C$

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REV.

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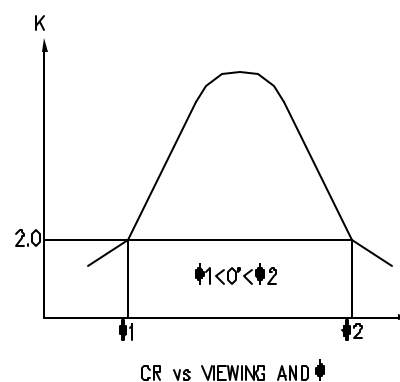
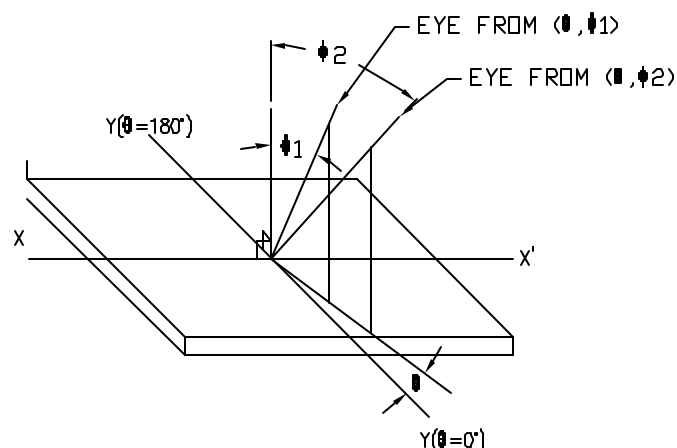
SCALE: N/A

1.6" 128 x 128 CSTN MODULE, TRANSMISSIVE (NEGATIVE),
-20°C TO +70°C OPERATING TEMPERATURE, WIEGHT: 9g,
GLARE UPPER POLARIZER, 1/32 DUTY, 6:00 VIEW.

OPTICAL CHARACTERISTICS		T _a =25°C (BACKLIGHT ON)						
ITEM		SYMBOL	CONDITION		STANDARD VALUE			UNIT
					MIN.	TYP.	MAX.	
VIEWING ANGLE RANGE (TRANSMISSIVE MODE)		φ1, φ2	θ=0°	X-AXIS	-35	-	35	DEG.
			K≥3	Y-AXIS	-35	-	35	
CONTRAST RATIO		CR	θ=0°, φ=0°		-	50	-	
CHROMATICITY COORDINATES		R	X	θ=0°, φ=0°	0.51	0.56	0.61	-
			Y		0.30	0.35	0.40	-
		G	X		0.25	0.30	0.35	-
			Y		0.48	0.53	0.58	-
		B	X		0.10	0.15	0.20	-
			Y		0.16	0.21	0.26	-
		W	X		0.27	0.32	0.37	-
			Y		0.30	0.35	0.40	-
RESPONSE TIME	NOTE 1,2	T _r +T _f	-	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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1.6" 128 x 128 CSTN MODULE, TRANSMISSIVE (NEGATIVE),
-20°C TO +70°C OPERATING TEMPERATURE, WEIGHT: 9g,
GLARE UPPER POLARIZER, 1/32 DUTY, 6:00 VIEW.

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