



ALL DIMENSIONS ARE IN MM. TOLERANCE IS +/-0.2 UNLESS OTHERWISE NOTED.

REVISIONS

NO.	DATE	BY	DESCRIPTION
1	01/06/18	NLV	NEW RELEASE

PINS ASSIGNMENT

NO.	SYMBOL	DESCRIPTION
1	FG	FRAME GROUND
2	VSS	GROUND
3	VDD	POWER SUPPLY FOR LOGIC AND LCD
4	V0	OPERATING VOLTAGE FOR LCD
5	/MR	DATA WRITE
6	/RD	DATA READ
7	/CE	CHIP ENABLE FOR T6963C
8	C/D	COMMAND/DATA SELECTION
9	/RST	RESET T6963C (LOW EFFECTIVE)
10--17	DB0--DB7	DATA BUS
18	FS	FONT SELECTION (L: 8X8, H: 6X8)
19	LED A	POWER SUPPLY FOR LED BACKLIGHT (+)
20	VEE	ON CHIP DC/DC OUTPUT (-10V)

ABSOLUTE MAXIMUM RATING

ITEM	SYMBOL	MIN	MAX	UNIT
POWER SUPPLY(V(LOGIC))	VDD-VSS	0	6.5	V
POWER SUPPLY(LCD DRV.)	VDD-V0	0	18.0	V
INPUT VOLTAGE	VI	VI	VI	V
			VDD	V

ELECTRICAL CHARACTERISTICS

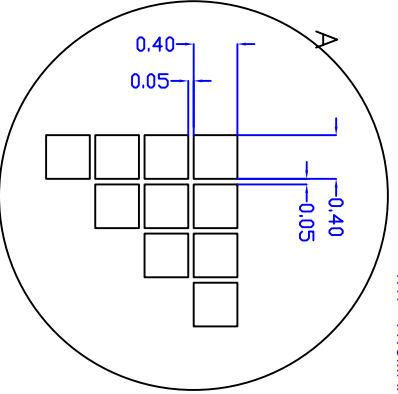
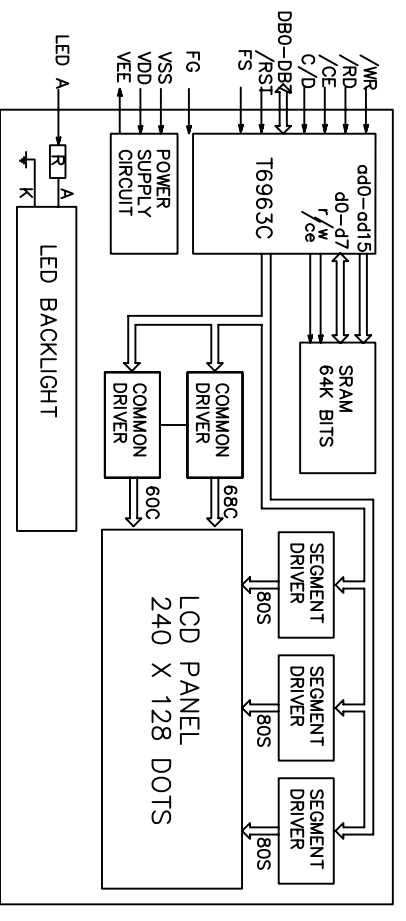
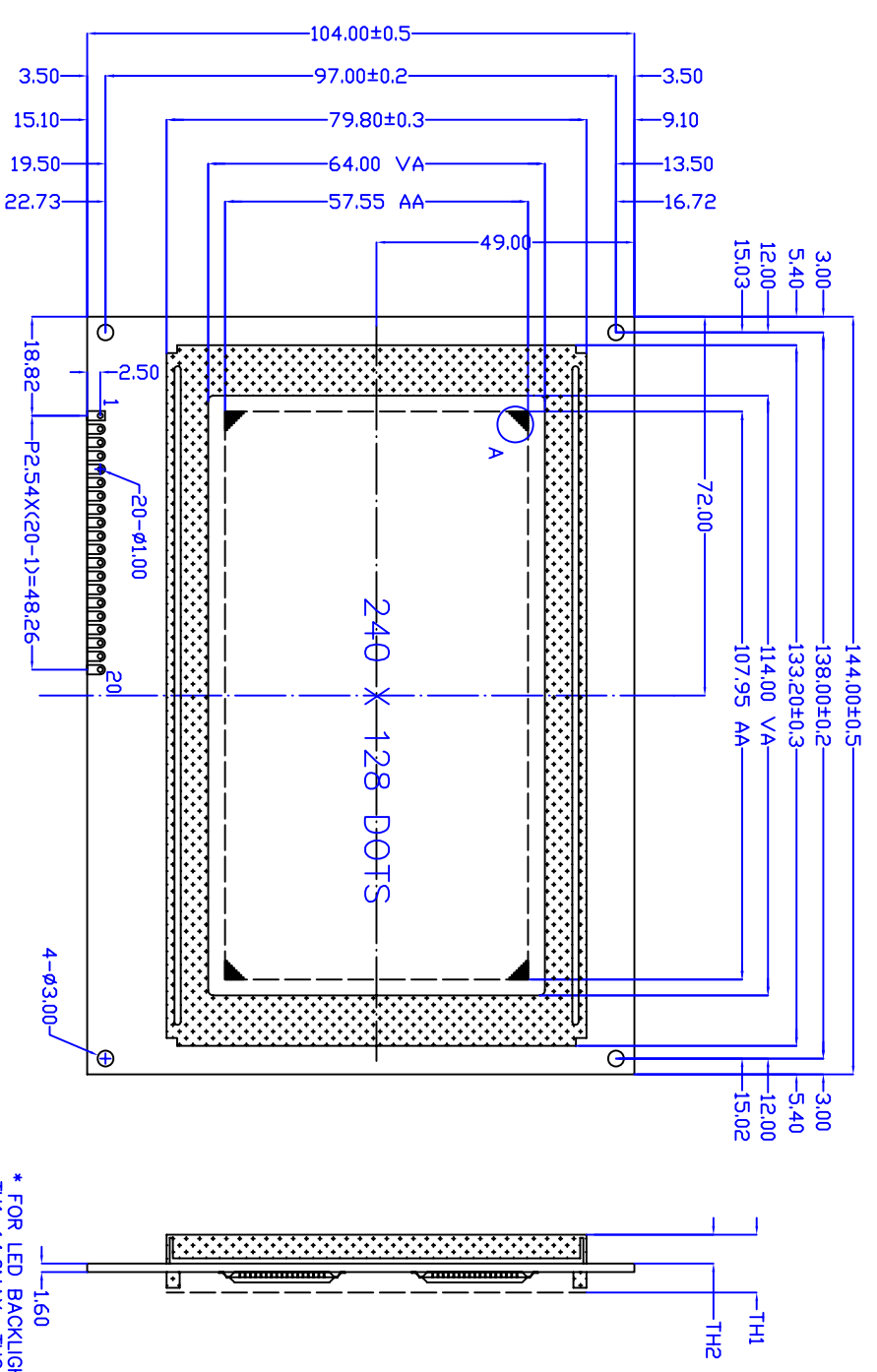
ITEM	SYMBOL	MIN	TYP	MAX	UNIT
VOLTAGE FOR LOGIC	VDD-VSS	4.75	5.0	5.25	V
SUPPLY CURRENT	IDD	-	12.0	-	mA
		-	16.0	-	V
LCD OPERATING	25C VDD-V0	-	15.0	-	V
VOLTAGE	40C	-	14.0	-	V
INPUT VOLTAGE	VI	VH	0.7VDD	-	V
		VL	0	0.3VDD	V

MECHANICAL SPECIFICATIONS

ITEM	SPECIFICATION	UNIT
OVERALL SIZE	144.0W x 104.0H x 14.0T(11.0T)	MM
VIEWING ANGLE	133.2Wx64.0H	MM
DOT NUMBER	240 x 128	DOTS
DOT SIZE	0.40W x 0.40H	MM
DOT PITCH	0.45W x 0.45H	MM

OPTIONS

1. LCD TYPE:	Y/G STN.	GRAY STN.	B/W FSTN
2. BACKLIGHT:	WITHOUT BACKLIGHT	LED	EL
3. COLOR OF BACKLIGHT:	Y/G	BLUE	WHITE
4. TEMPERATURE RANGE:	NORMAL(0--50C)		
5. POWER SUPPLY:	ON BOARD DC/DC(SINGLE 5.0V)		
	DUAL POWER SUPPLY(5.0V & -10.0V)		
6. VIEWING ANGLE:	6H	12H	



\* FOR LED BACKLIGHT  
 TH1=14.0MAX TH2=9.0MAX  
 \* FOR EL OR NO BACKLIGHT  
 TH1=11.0MAX TH2=6.0MAX

