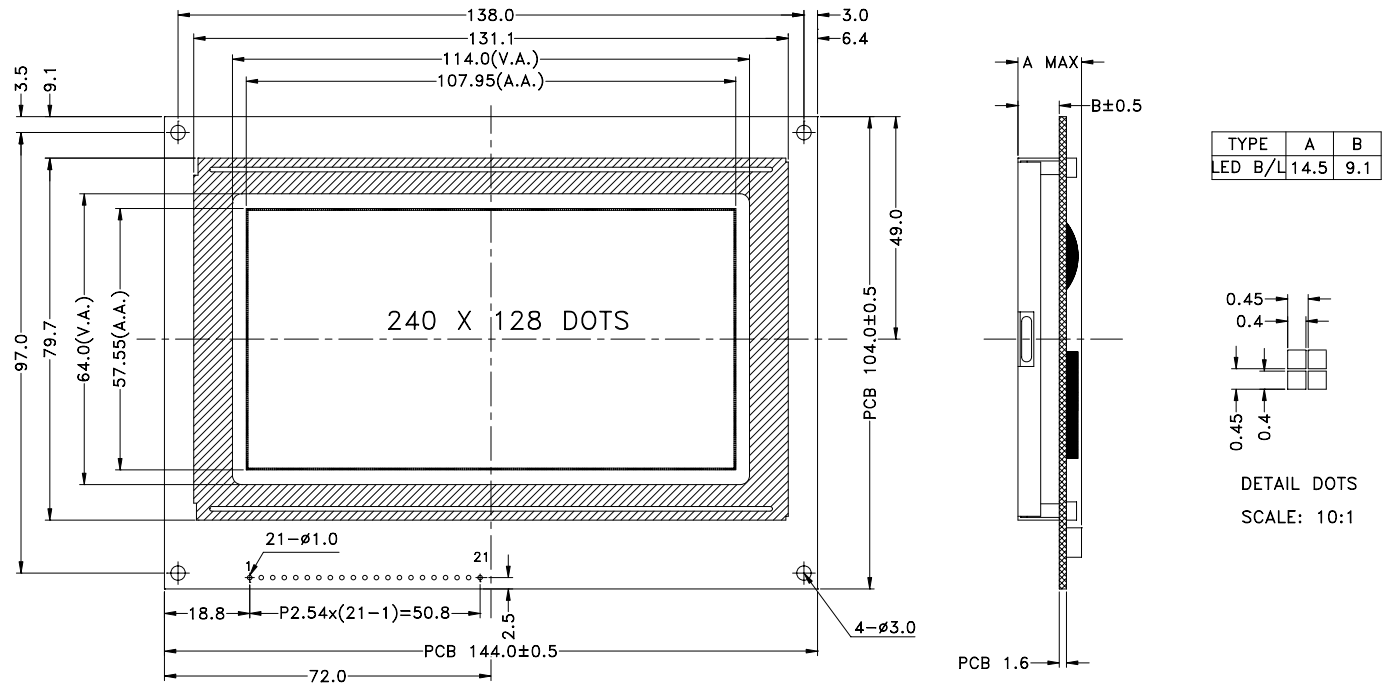


## Outline Dimension



## Graphic Type

### Feature :

- 1、240x128 dot-matrix
- 2、STN/Transmissive/Negative/Blue
- 3、Backlight: White /side light
- 4、Operating Temp.: -20°C ~ +70°C
- 5、1/128 duty cycle, 1/12 Bias
- 6、Built-in Controller ( T6963C or equivalent )
- 7、Viewing angle: 6 o'clock

### Absolute Maximum Rating :

Item	Symbol	Standard value			Unit
		M <sub>IN</sub>	T <sub>YP</sub>	M <sub>AX</sub>	
Power supply for logic	V <sub>DD</sub> -V <sub>SS</sub>	-0.3	--	7.0	V
Input voltage	V <sub>I</sub>	-0.3	--	V <sub>DD</sub> +0.3	V

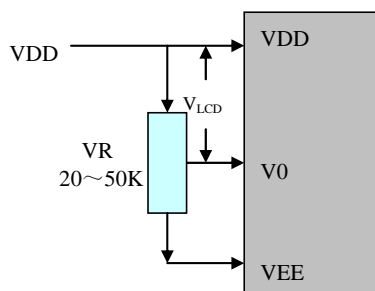
### Electrical Characteristic : ( V<sub>SS</sub>=0V, T<sub>a</sub> = 25°C )

Parameter	Symbol	Condition	M <sub>IN</sub>	T <sub>YP</sub>	M <sub>AX</sub>	Unit
Supply voltage for logic	V <sub>DD</sub>	--	4.8	5.0	5.2	V
Supply current for logic	I <sub>DD</sub>	--	--	20	--	mA
Operating voltage for LCD	V <sub>LCD</sub>	-20°C	--	--	--	V
		+25°C	--	15.8	--	V
		+70°C	--	--	--	V
Supply voltage for Backlight	V <sub>BL</sub>	--	--	5.0	--	V
Supply current for Backlight	I <sub>BL</sub>	--	--	180	--	mA

### Interface Pin Connections :

Pin No.	Symbol	Level	Description															
1	FG	0V	Ground for Frame.															
2	GND	0V	Ground output for pad option.															
3	VDD	+5.0V	Supply voltage for logic operating.															
4	V0	--	Adjusting the LCM display contrast voltage input.															
5	/WR	H/L	Data write. Write data into T6963C when WR=L.															
6	/RD	H/L	Data read. Read data from T6963C when RD=L.															
7	/CE	H/L	Chip Enable for T6963C. CE must be L when CPU communicates with T6963C.															
8	C/D	H/L	WR=L.....C/D=H: Command Write C/D=L: Data Write RD=L.....C/D=H: Status Read C/D=L: Data Read															
9	/RST	H/L	H.....Normal (T6963C has internal pull-up resistor) L.....Initialize T6963C. Text and Graphic have addresses and text and graphic area settings are retained.															
10~17	DB0~DB7	H/L	8-bit bi-directional data bus.															
18	FS	H/L	Pins for selection of font. The pin FS0 has been connected to the LOW in the PCB. <table border="1"> <tr> <td>FS0</td> <td>H</td> <td>L</td> <td>H</td> <td>L</td> </tr> <tr> <td>FS1</td> <td>H</td> <td>H</td> <td>L</td> <td>L</td> </tr> <tr> <td>Font</td> <td>5x8</td> <td>6x8</td> <td>7x8</td> <td>8x8</td> </tr> </table>	FS0	H	L	H	L	FS1	H	H	L	L	Font	5x8	6x8	7x8	8x8
FS0	H	L	H	L														
FS1	H	H	L	L														
Font	5x8	6x8	7x8	8x8														
19	VEE	--	DC/DC converted negative voltage output.															
20	LED+	+5.0V	Power supply for Backlight															
21	LED-	0V	The backlight ground.															

### Adjusting Display Contrast :



Note: Adjust V0 to VDD as an initial setting. When the module is operational, readjust V0 for optimal display appearance.