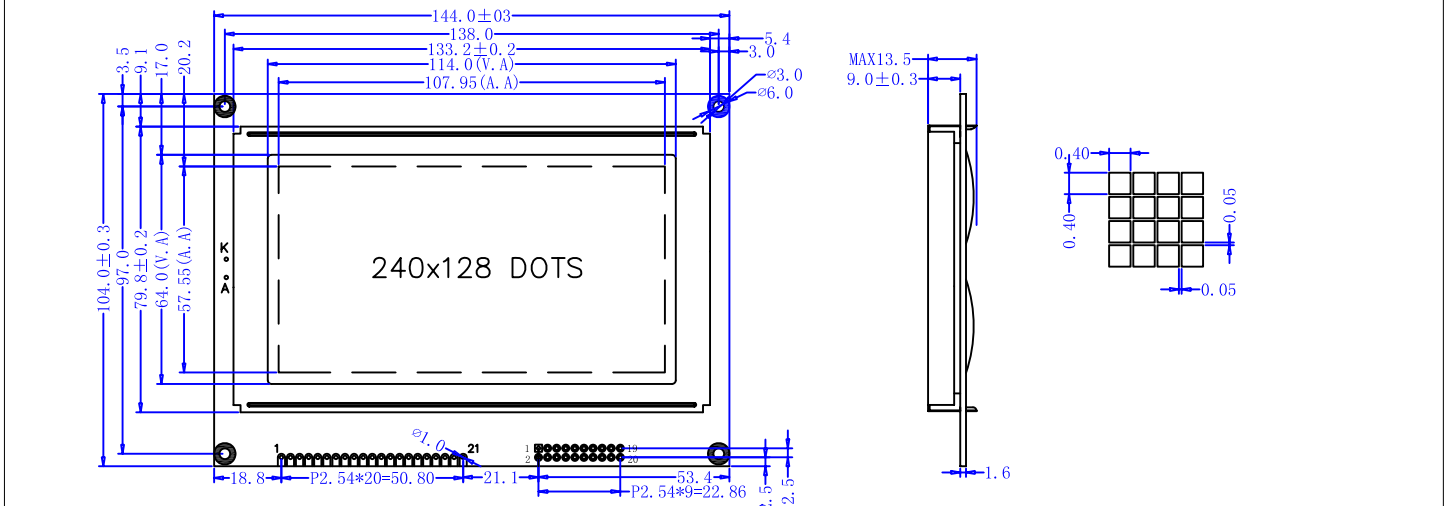


1. DIMENSION OUTLINE



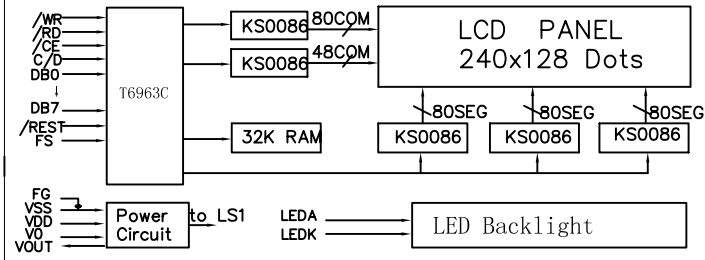
2. MECHANICAL SPECIFICATIONS

ITEM	SPECIFICATIONS	ITEM	REMARK
Module Size(L×W×H)	144.0×104.0×14.0	mm	Reference Dimensional Outline
View Area(W×H)	114.0×64.0	mm	
Effective V/Area	107.95×57.55	mm	
Number of Characters	240×128	-	
Dot Pitch(W×H)	0.45×0.45	mm	
Dot Size(W×H)	0.40×0.40	mm	
Weight (Reflective/Led)	-	g	

3. ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	CONDITION	STANDARD	
			MIN	MAX
Logic Voltage	V <sub>DD</sub>	T <sub>a</sub> =25 °C	-0.3V	7V
LCD Voltage	V <sub>LCd</sub>		-0.3V	25V
Input Voltage	V <sub>i</sub>		-0.3V	V <sub>DD</sub> +0.3V
Operation Temperature	T <sub>OP</sub>	-	-20 °C	70 °C
Storage Temperature	T <sub>St</sub>	-	-30 °C	80 °C

4. BLOCK DIAGRAM MECHANICAL



5. LED BACKLIGHT SPECIFICATIONS

ITEM	SYMBOL	TYPE	MAX	UNIT
T <sub>a</sub> =25 °C				
Forward Voltage	V <sub>f</sub>	4.05	4.25	V
Forward Current	I <sub>f</sub>	720	-	mA
Emission Wavelength	λ <sub>P</sub>	568	-	nm

7. ELECTRICAL CHARACTERISTICS

ITEM	SYMBOL	MIN	TYPE	MAX	UNIT
T <sub>a</sub> =25 °C					
Logic Power	V <sub>DD</sub>	4.5	5	5.5	V
Input High Voltage	V <sub>IH</sub>	V <sub>DD</sub> -2.2	-	V <sub>DD</sub>	V
Input Low Voltage	V <sub>IL</sub>	0	-	0.8	V
Output High Voltage	V <sub>OH</sub>	V <sub>DD</sub> -0.3	-	V <sub>DD</sub>	V
Output Low Voltage	V <sub>OL</sub>	0	-	0.3	V
Logic Current	I <sub>DD</sub>	-	15	25	mA
Operation Voltage For LCD	V <sub>DD</sub> -V <sub>0</sub>	-	18	-	V

6. INTERFACE PIN CONNECTIONS

ITEM1	SYMBOL	LEVEL	FUNCTIONS
1	FG	-	Frame Ground
2	VSS	0V	Power Ground
3	VDD	+5V	Power supply for logic
4	V0	-	Contrast adjust
5	/WR	L	Write signal
6	/RD	L	Read signal
7	/CE	L	Chip enable signal
8	C/D	H/L	H:command L:data
9	/RES	L	Reset signal
10-17	D0-D7	H/L	Data Bus
18	FS	H/L	Font selection L:8x8 H:6x8
19	VOUT	-	Output voltage for LCD Driving
20	A	+5V	Power supply for LED Backlight
21	K	0V	

ITEM2	SYMBOL	LEVEL	FUNCTIONS
1	FG	-	Frame Ground
2	VSS	0V	Power Ground
3	VDD	+5V	Power supply for logic
4	V0	-	Contrast adjust
5	/WR	L	Write signal
6	/RD	L	Read signal
7	/CE	L	Chip enable signal
8	C/D	H/L	H:command L:data
9	/RES	L	Reset signal
10-17	D0-D7	H/L	Data Bus
18	FS	H/L	Font selection L:8x8 H:6x8
19	VOUT/A	-	Output voltage for LCD Driving
20	A/K	+5V/0V	Power supply for LED Backlight