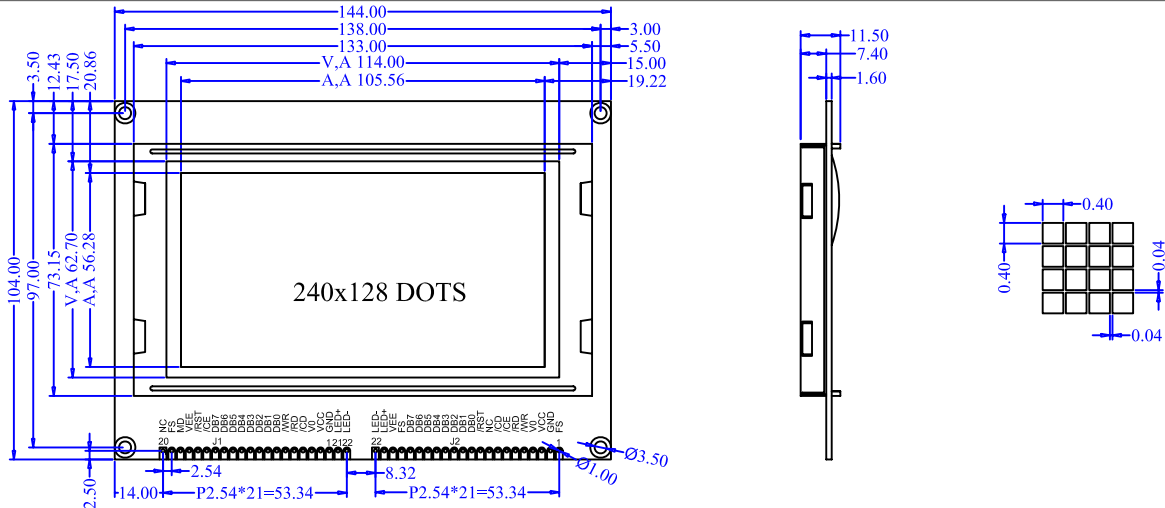


1. DIMENSION OUTLINE



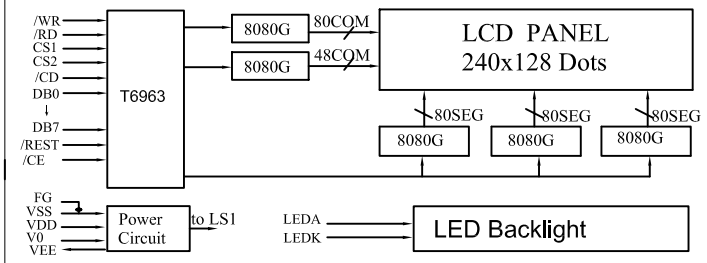
2. MECHANICAL SPECIFICATIONS

ITEM	SPECIFICATIONS	ITEM	REMARK
Module Size(L×W×H)	144.0×104.0×11.5	mm	Reference Dimensional Outline
View Area(W×H)	114.0×62.7	mm	
Effective V/Area	105.56×56.28	mm	
Number of Characters	240×128	-	
Dot Pitch(W×H)	0.44×0.44	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 _{DD}	Ta=25°C	-0.3V	6.5V
LCD Voltage	V _{LCD}		-0.3V	-20V
Input Voltage	V _I		-0.3V	V _{DD} +0.3V
Operation Temperature	T _{OP}	—	-20°C	70°C
Storage Temperature	T _{ST}	—	-30°C	80°C

4. BLOCK DIAGRAM MECHANICAL



5. LED BACKLIGHT SPECIFICATIONS

ITEM	SYMBOL	TYPE	MAX	UNIT
Ta=25°C				
Forward Voltage	V _f	4.05	4.25	V
Forward Current	I _f	720	—	mA
Emission Wave Length	λ _p	568	—	nm
Forward Voltage	V _f	3.0	3.1	V
Forward Current	I _f	90	120	mA
Emission Wave Length	λ _p	—	—	nm

6. INTERFACE PIN CONNECTIONS

J1	J2	SYMBOL	LEVEL	FUNCTIONS
1	2	GND	0V	Power Ground
2	3	VDD	+5V	Power Supply For Logic
3	4	V0	—	Contrast Adjust
4	8	C/D	H/L	H:command L:data
5	6	/RD	L	Read Signal
6	5	/WR	L	Write Signal
7-14	11-18	DB0-DB7	I/O	Data Bus
15	7	/CE	L	Chip Enable Signal
16	10	/REST	L	Reset Signal
17	20	VEE	—	Output Voltage For LCD Driving
18		MD	H/L	Number Columns L:40 H:32
19	19	FS	H/L	Font Selection L:8x8 H:6x8
20	9	NC	--	--
21	21	LEDA	+5V	Power Supply For LED Backlight
22	22	LEDK	0V	
	1	FG	--	Frame Ground

7. ELECTRICAL CHARACTERISTICS

ITEM	SYMBOL	MIN	TYPE	MAX	UNIT
Ta=25°C					
Logic Power	V _{DD}	4.5	5	5.5	V
Input High Voltage	V _{IH}	V _{DD} -2.2	—	V _{DD}	V
Input Low Voltage	V _{IL}	0	—	0.8	V
Output High Voltage	V _{OH}	V _{DD} -0.3	—	V _{DD}	V
Output Low Voltage	V _{OL}	0	—	0.3	V
Logic Current	I _{DD}	—	47	—	mA
Operation Voltage For LCD	V _{DD} -V ₀	—	18.5	—	V