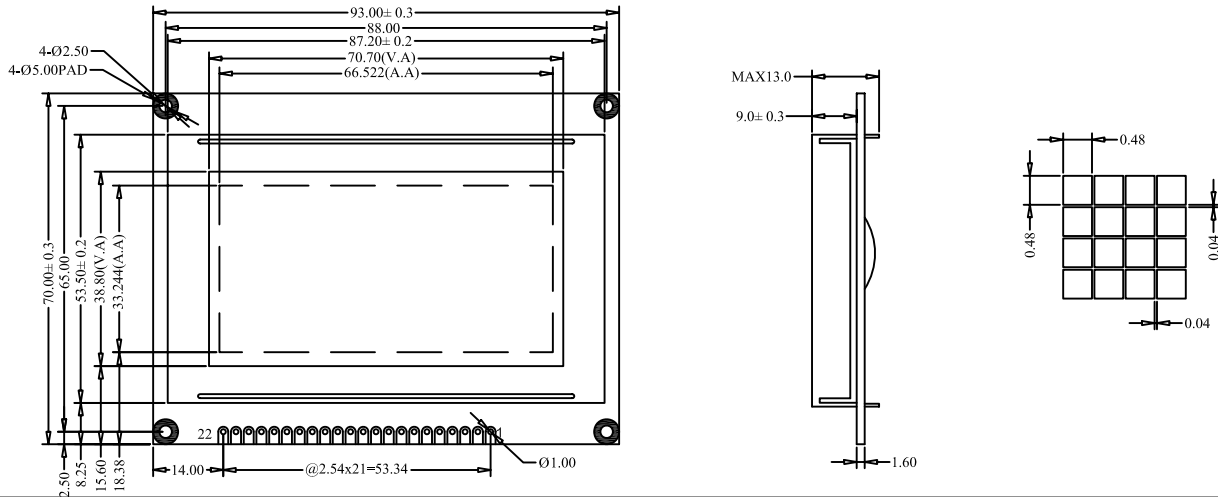


## 1. DIMENSION OUTLINE



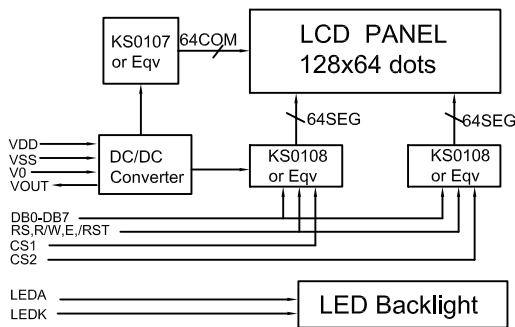
## 2. MECHANICAL SPECIFICATIONS

ITEM	SPECIFICATIONS	ITEM	REMARK
Module Size(L×W×H)	93.0×70.0×13.0	mm	Reference Dimensional Outline
View Area(W×H)	70.7×38.8	mm	
Effective V/Area	66.522×33.244	mm	
Number of Characters	128×64	-	
Dot Pitch(W×H)	0.52×0.52	mm	
Dot Size(W×H)	0.48×0.48	mm	
Weight (Reflective/Led)	-	g	

## 3. ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	CONDITION	STANDARD	
			MIN	MAX
Logic Voltage	V <sub>DD</sub>	Ta=25°C	-0.3V	7V
LCD Voltage	V <sub>LCD</sub>		-0.3V	17.5V
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 DIAGRAMMECHANICAL



## 5. LED BACKLIGHT SPECIFICATIONS

ITEM	SYMBOL	TYPE	MAX	UNIT
Ta=25°C				
Forward Voltage	V <sub>f</sub>	4.1	4.3	V
Forward Current	I <sub>f</sub>	360	—	mA
Emission Wave Length	λ <sub>P</sub>	568	—	nm

## 6. INTERFACE PIN CONNECTIONS

ITEM	SYMBOL	LEVEL	FUNCTIONS	
1	CS1	L	Chip selection signal 1	When CSA and CSB were not used
2	CS2	L	Chip selection signal 2	
3	VSS	0V	Power Ground	
4	VDD	+5V	Power supply for logic	
5	V0	—	Contrast adjust	
6	RS	H/L	H:data L:command	
7	R/W	H/L	H:read L:write	
8	E	H.H→L	Enable signal	
9-16	DB0-DB7	H/L	Data Bus	
17	CSA	H	Chip selection signal 1	When CS1 and CS2 were not used
18	CSB	H	Chip selection signal 2	
19	/RST	L	Reset signal	
20	VOUT	—	Output voltage for LCD driving	
21	LEDA	+5V	Power supply for LED backlight	
22	LEDK	0V		

## 7. ELECTRICAL CHARACTERISTICS

ITEM	SYMBOL	MIN	TYPE	MAX	UNIT
Ta=25°C					
Logic Power	V <sub>DD</sub>	4.5	5	5.5	V
Input High Voltage	V <sub>IH</sub>	0.8V <sub>DD</sub>	—	V <sub>DD</sub>	V
Input Low Voltage	V <sub>IL</sub>	VSS	—	0.8	V
Output High Voltage	V <sub>OH</sub>	2.4	—	—	V
Output Low Voltage	V <sub>OL</sub>	0	—	0.4	V
Logic Current	I <sub>DD</sub>	—	6	8	mA
Operation Voltage For LCD	V <sub>DD</sub> -V <sub>0</sub>	—	9	—	V