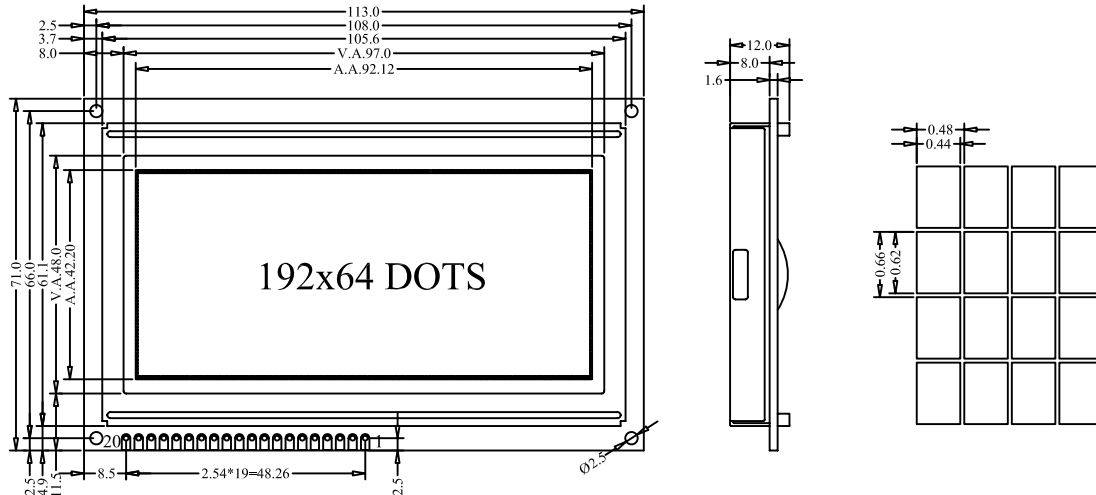


## 1. DIMENSION OUTLINE



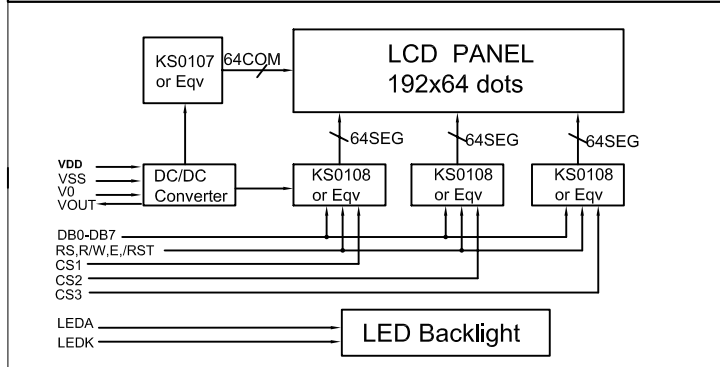
## 2. MECHANICAL SPECIFICATIONS

ITEM	SPECIFICATIONS	ITEM	REMARK
Module Size(L×W×H)	113.0×71.0×12.0	mm	Reference Dimensional Outline
View Area(W×H)	97.0×48.0	mm	
Effective V/Area	92.12×42.20	mm	
Number of Characters	192×64	-	
Dot Pitch(W×H)	0.48×0.66	mm	
Dot Size(W×H)	0.42×0.62	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>	3.1	3.2	V
Forward Current	I <sub>f</sub>	60	—	mA
Emission Wave Length	λ <sub>P</sub>	WHITE	—	nm

## 6. INTERFACE PIN CONNECTIONS

ITEM	SYMBOL	LEVEL	FUNCTIONS
1	VSS	0V	Power Ground
2	VDD	+5V	Power supply for logic
3	V0	—	Contrast adjust
4	RS	H/L	H:data L:command
5	R/W	H/L	H:read L:write
6	E	H.H→L	Enable signal
7-14	DB0-DB7	H/L	Data Bus
15	CS1	L	Chip selection Signal For IC1
16	CS2	L	Chip selection Signal For IC2
17	CS3	L	Chip selection Signal For IC3
18	/RST	L	Reset signal
19	VOUT	—	Output voltage for led driving
20	LEDA	+5V	LED B/L Power Supply

## 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>	—	10	—	mA
Operation Voltage For LCD	V <sub>DD-V0</sub>	—	12.5	—	V