

# SG12864J ( 128 DOTS X 64 DOTS )

## FEATURES

- BUILT-IN CONTROLLER T6963C OR EQUIVALENT)
- +5 V POWER SUPPLY
- 1/64 DUTY CYCLE
- 8-BIT PARALLEL INTERFACE

## MECHANICAL DATA

ITEM	DIMENSIONS	UNIT
Module Size (W x H x T)	78.0 x 70.0 x 10.5(13.2LED)	mm
Viewing Area ( W x H )	62.0 x 44.0	mm
Active Area ( W x H )	56.28 x 38.36	mm
Dot Size ( W x H )	0.40 x 0.56	mm
Dot Pitch ( W x H )	0.44 x 0.60	mm

## INTERFACE PIN CONNECTIONS

NO.	SYMBOL	LEVEL	FUNCTION
1	FG	-	Frame Ground
2	Vss	0V	Power Supply Ground
3	VDD	5V	Power Supply Voltage
4	Vo	-	Contrast Adjustment Voltage
5	/WR	L	Write Singal
6	/RD	L	Read Signal
7	/CE	L	Enable Signal
8	C/D	H/L	H : Instruction Code, L : Data Code
9	/RST	L	Reset Signal
10~17	DB0~DB7	H/L	Data Bus Line
18	FS	H/L	H : 6*8 , L : 8*8 Select Of Columns
19	A	4.2V	LED Power (+)
20	K	0V	LED Power (-)

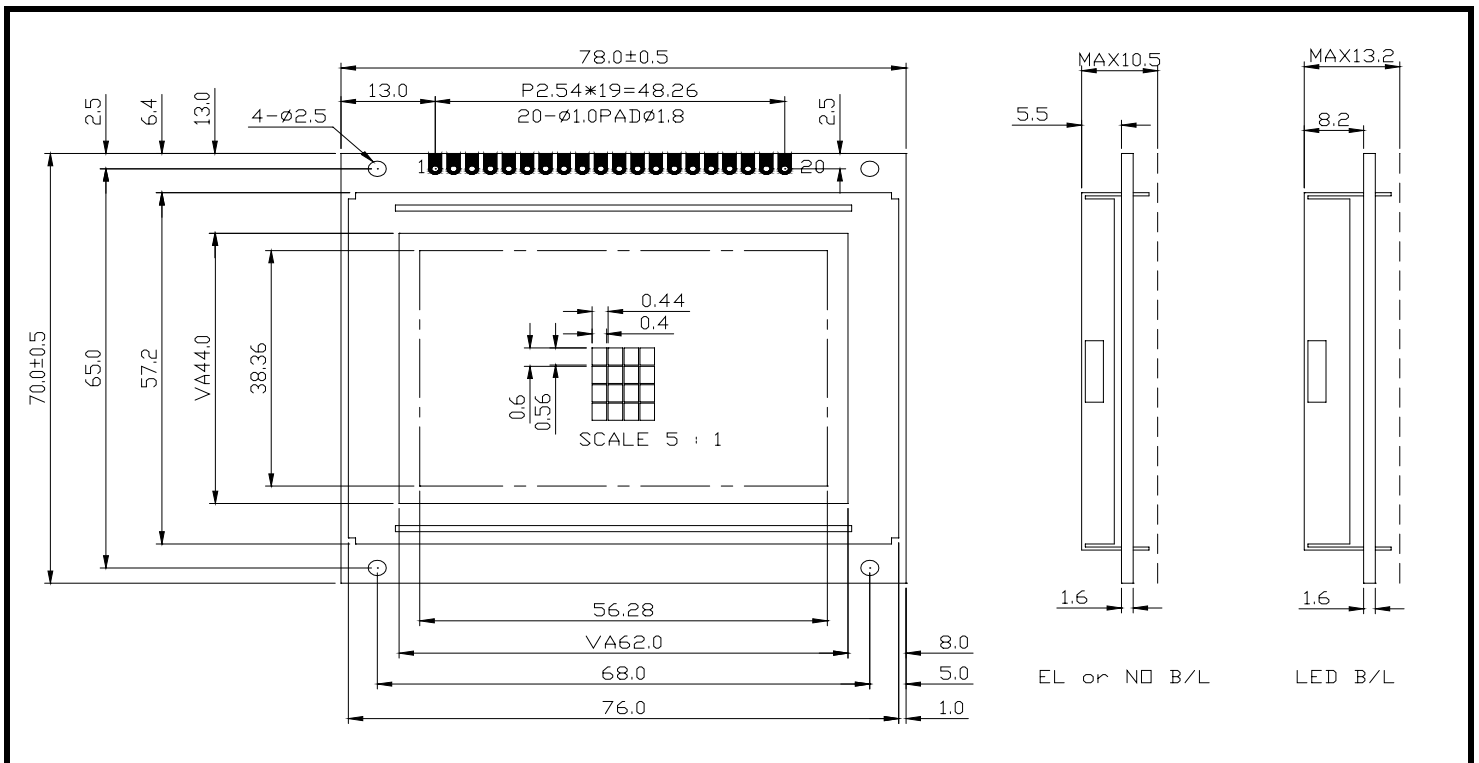
## ABSOLUTE MAXIMUM RATINGS

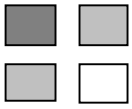
ITEM	SYMBOL	MIN.	TYP.	MAX.	UNIT
Supply Voltage For Logic	VDD-VSS	0	-	7	V
Supply Voltage For LCD Drive	VDD-Vo	0	-	14	V
Input Voltage	VI	VSS	-	VDD	V

## ELECTRICAL CHARACTERISTICS

ITEM	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT	
Supply Voltage For Logic	VDD-VSS	-	4.5	5	5.5	V	
Supply Voltage For LCD	VDD-Vo	VDD=5V Ta=25	9.3	10.5	11.7	V	
Supply Current	IDD	VDD=5V	-	4.5	10	mA	
Input Voltage	"HIGH" Level	V <sub>IH</sub>	-	2.2	-	V <sub>DD</sub>	V
	"LOW" Level	V <sub>IL</sub>	-	-	-	0.6	V
Output Voltage	"HIGH" Level	V <sub>OH</sub>	-	2.4	-	-	V
	"LOW" Level	V <sub>OL</sub>	-	-	-	0.4	V

## EXTERNAL DIMENSIONS



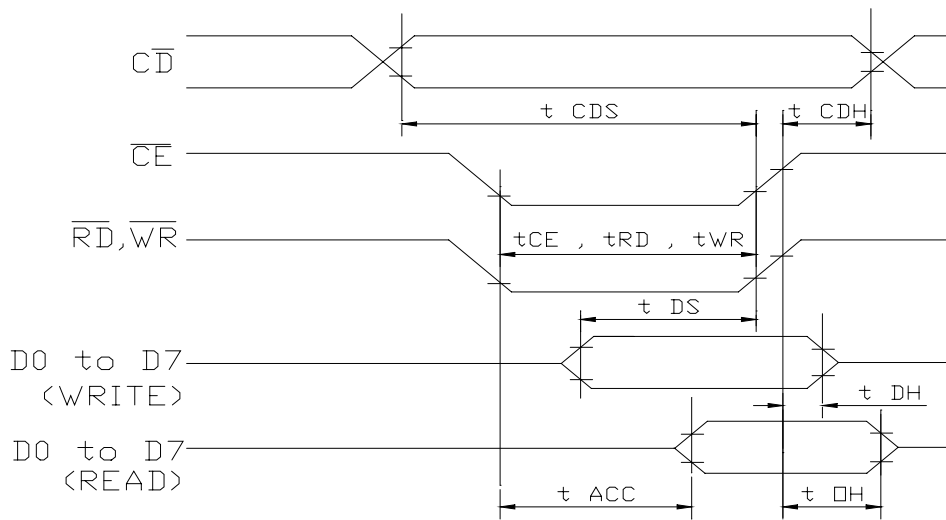


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## TIMING CHARACTERISTICS

ITEM	SYMBOL	MIN.	MAX.	UNIT.
C/D Setup Time	$t_{CDS}$	100	-	ns
C/D Hold Time	$t_{CDH}$	10	-	ns
CE, RD,WR Pulse Width	$t_{CE}, t_{RD}, t_{WR}$	80	-	ns
Data Setup Time	$t_{DS}$	80	-	ns
Data Hold Time	$t_{DH}$	40	-	ns
Access Time	$t_{ACC}$	-	150	ns
Output Hold Time	$t_{OH}$	10	50	ns

### Bus Timing



## BLOCK DIAGRAM

