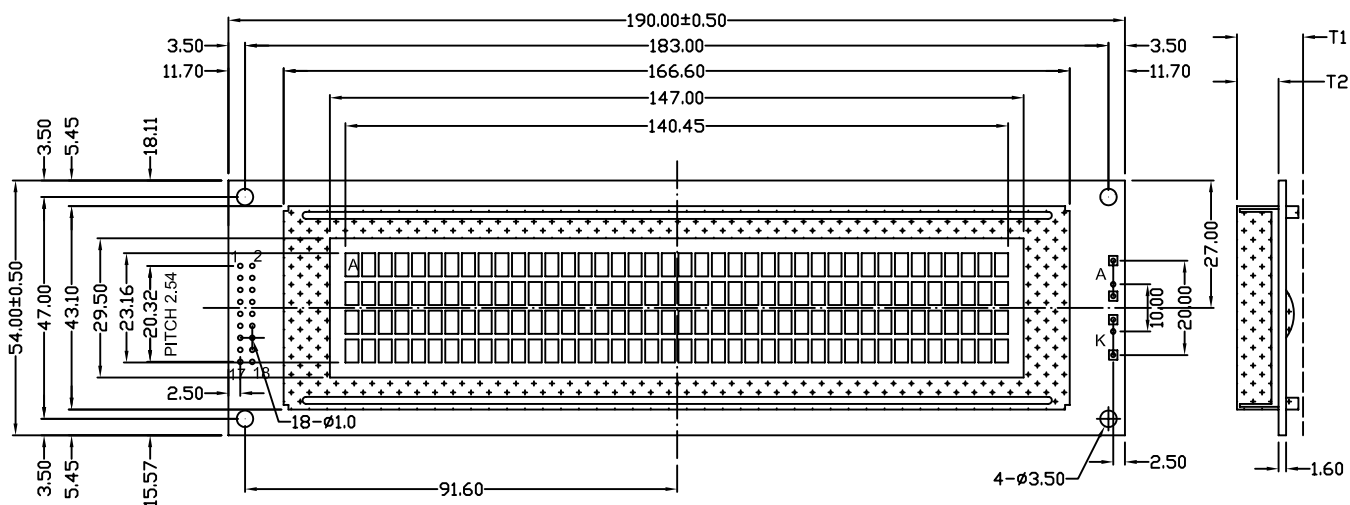


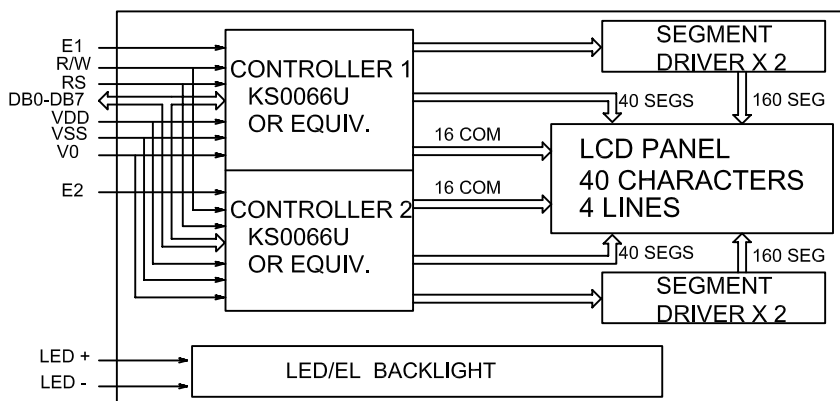
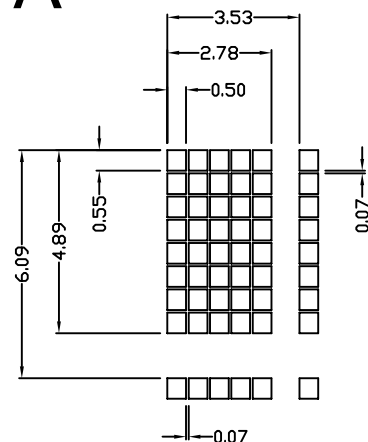
# LINK-SUN (HONG KONG) ELECTRONICS LTD

## Model No: LSM4004-1



\* FOR LED BACKLIGHT  
T1=14.0MAX T2=9.0± 0.3  
\* FOR EL OR NO BACKLIGHT  
T1=10.0MAX T2=5.0± 0.3

**A**



PINS ASSIGNMENT		
NO.	SYMBOL	DESCRIPTION
1--8	DB7--DB0	DATA BUS
9	E1	ENABLE SIGNAL FOR CONTROLLER 1
10	R/W	READ/WRITE CONTROL
11	RS	DATA/INSTRUCTION SELECT
12	V0	OPERATING VOLTAGE FOR LCD
13	VSS	POWER SUPPLY
14	VDD	POWER SUPPLY
15	E2	ENABLE SIGNAL FOR CONTROLLER 2
16	NC	NO CONNECT
17	LED -	POWER SUPPLY FOR LED BACKLIGHT (-)
18	LED +	POWER SUPPLY FOR LED BACKLIGHT (+)

ELECTRICAL CHARACTERISTICS (VDD=5.0± 0.25V, 25C)						
ITEM	SYMBOL	MIN	TYP	MAX	UNIT	
VOLTAGE FOR LOGIC	VDD-VSS	4.75	5.0	5.25	V	
SUPPLY CURRENT	IDD	-	6.0	7.5	mA	
VOLTAGE FOR LCD	VDD-V0	4.7	4.9	5.1	V	
INPUT VOLTAGE	H	V <sub>IH</sub>	2.2	-	VDD	V
	L	V <sub>IL</sub>	-0.3	-	0.6	V
OUTPUT VOLTAGE	H	V <sub>OH</sub>	2.4	-	V	V
	L	V <sub>OL</sub>	-	-	0.4	V

MECHANICAL SPECIFICATIONS		
ITEM	SPECIFICATION	UNIT
OVERALL SIZE	190.0W x 54.0H x 14.0T(10.0T)	MM
VIEWING AREA	147.0W x 29.5H	MM
CHARACTERS	40 CHARACTERS x 4 LINES	
CHARACTER SIZE	2.78W x 4.89H	MM
CHARACTER PITCH	3.53W x 6.09H	MM

OPTIONS	
1.	LCD TYPE: Y/G STN; GRAY STN; TN
2.	BACKLIGHT: WITHOUT BACKLIGHT; LED; EL
3.	COLOR OF BACKLIGHT: Y/G; BLUE; WHITE
4.	TEMPERATURE RANGE: NORMAL(0--50C) EXTENDED(-20--70C)
5.	POWER SUPPLY: 5.0V; 3.0V
6.	VIEWING ANGLE: 6H; 12H
7.	CHARACTER TABLE: JAPANESE; EUROPEAN; CYRILLIC

ABSOLUTE MAXIMUM RATING				
ITEM	SYMBOL	MIN	MAX	UNIT
POWER SUPPLY(LOGIC)	VDD-VSS	-0.3	7.0	V
POWER SUPPLY(LCD DRV.)	VDD-V0	-0.3	13.5	V
INPUT VOLTAGE	V <sub>I</sub>	-0.3	VDD	V