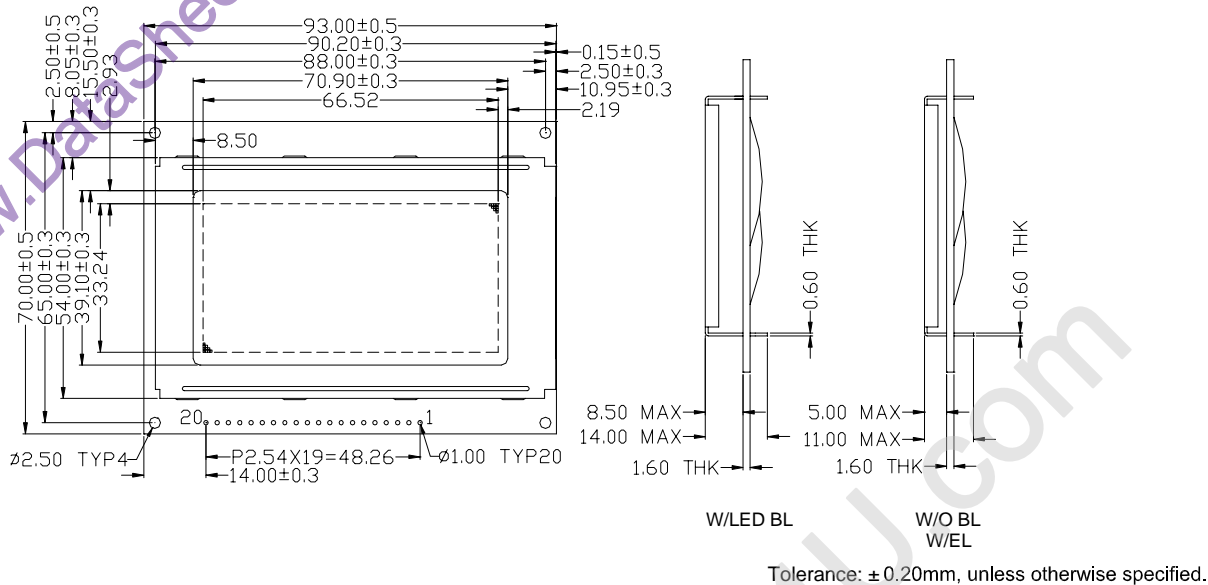
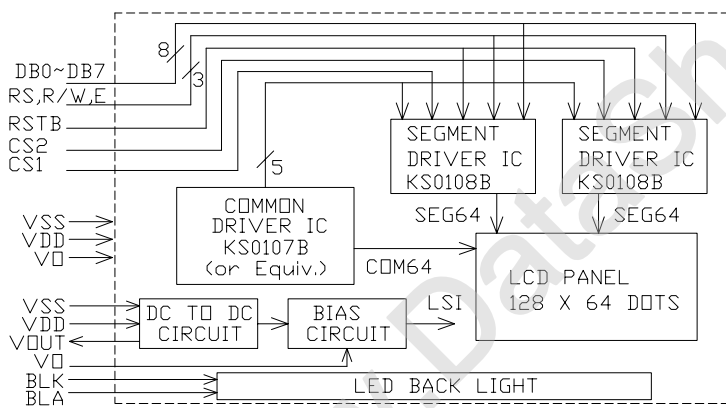


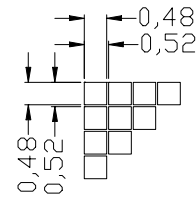
**OUTLINE DIMENSION**



**BLOCK DIAGRAM**



**DISPLAY PATTERN**



**MECHANICAL SPECIFICATION**

Item	Dimensions(W)X(H)	Unit
Overall Size	93.0x70.0	MM
View Area	70.9x39.1	MM
Dot Size	0.48x0.48	MM
Dot Pitch	0.52x0.52	MM

**PIN ASSIGNMENT**

Pin no	Symbol	Function
1	Vss	Power Supply(GND)
2	Vdd	Power Supply(+)
3	VO	Contrast adjust voltage
4	RS	Data / Instruction signal
5	R/W	Read / Write signal
6	E	Clock
7~14	DB0~7	Data bus 0~7
15	CS1	Chip select signal for KS0108B(1)
16	CS2	Chip select signal for KS0108B(2)
17	RSTB	Reset signal
18	VOUT	Voltage booster output
19	BLA	Back light anode
20	BLK	Back light cathode

**ABSOLUTE MAXIMUM RATING**

Item	Symbol	Condition	Min	Max	Unit
Supply for logic voltage	VDD	25°C	-0.3	7.0	V
LCD driving supply voltage	V <sub>LCD</sub>	25°C	-0.3	V <sub>DD</sub> +0.3	V
Input voltage	VI	25°C	-0.3	V <sub>DD</sub> +0.3	V

**ELECTRICAL CHARACTERISTICS**

Item	Symbol	Condition	Min	Typical	Max	Unit
Supply voltage for logic	VDD	---	4.5	5.0	5.5	V
Supply current for logic	I <sub>DD</sub>	---	---	2.02	4.0	mA
Operation voltage for LCD	V <sub>DD-Vo</sub>	0°C	7.9	8.3	8.7	V
		25°C	7.7	8.1	8.5	V
		50°C	7.5	7.9	8.3	V
Input voltage " H " level	V <sub>IH</sub>	---	0.7V <sub>DD</sub>	---	V <sub>DD</sub>	V
Input voltage " L " level	V <sub>IL</sub>	---	0	---	0.3V <sub>DD</sub>	V
Supply voltage for back light	VF	---	---	4.2	4.6	V
Supply current for back light	IF	VF=4.2V	---	360	720	mA

**REMARKS:**

- LCD options: STN, FSTN.
- Back light Options: LED\EL Back light feature.