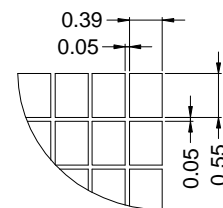
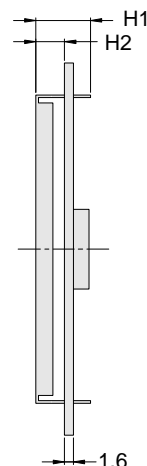
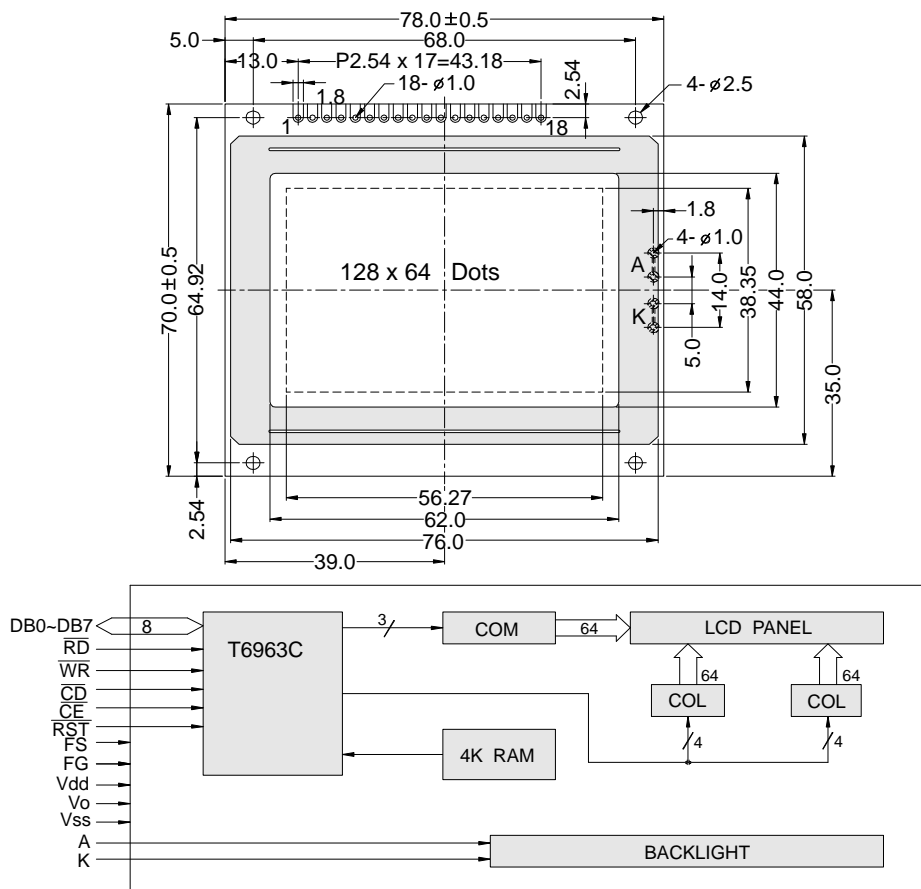


**OUTLINE DIMENSION & BLOCK DIAGRAM**



The tolerance unless classified  $\pm 0.3\text{mm}$

**MECHANICAL SPECIFICATION**

Overall Size	78.0 x 70.0	Module	H2 / H1
View Area	62.0 x 44.0	W / O B/L	5.1 / 9.7
Dot Size	0.39 x 0.55	EL B/L	5.1 / 5.7
Dot Pitch	0.44 x 0.60	LED B/L	9.2 / 13.8

**PIN ASSIGNMENT**

Pin no.	Symbol	Function
1	FG	Frame ground
2	Vss	Power supply(GND)
3	Vdd	Power supply(+)
4	Vo	Contrast Adjust
5	WR	Data write
6	RD	Data read
7	CE	Chip enable
8	CD	Command / data select
9	RST	Reset
10-17	DB0-DB7	Data bus line
18	FS	Font select

**ABSOLUTE MAXIMUM RATING**

Item	Symbol	Condition	Min.	Max.	Units
Supply for logic voltage	Vdd-Vss	25°C	-0.3	7.0	V
LCD driving supply voltage	Vdd-Vee	25°C	0	22.0	V
Input voltage	Vin	25°C	-0.3	Vdd+0.3	V

**ELECTRICAL CHARACTERISTICS**

Item	Symbol	Condition	Min.	Typical	Max.	Units			
Power supply voltage	Vdd-Vss	25°C	4.5	—	5.5	V			
LCD operation voltage	Vop	Top	N	W	N	W	V		
		-20°C	—	8.6	—	9	—	9.5	V
		0°C	8.5	—	8.9	—	9.3	—	V
		25°C	8	8.6	8.4	9	8.8	9.5	V
		50°C	7.6	—	8	—	8.4	—	V
		70°C	—	8	—	8.4	—	7.8	V
LCM current consumption (No B/L)	Idd	Vdd=5V	—	6.5	—	mA			
Backlight current consumption	LED/edge	VB/L=4.2V	—	—	—	mA			
	LED/array	VB/L=4.2V	—	350	—	mA			

**REMARK**

LCD option: STN, TN, FSTN

Backlight Option: LED, EL Backlight feature, other Specs not available on catalog is under request.

