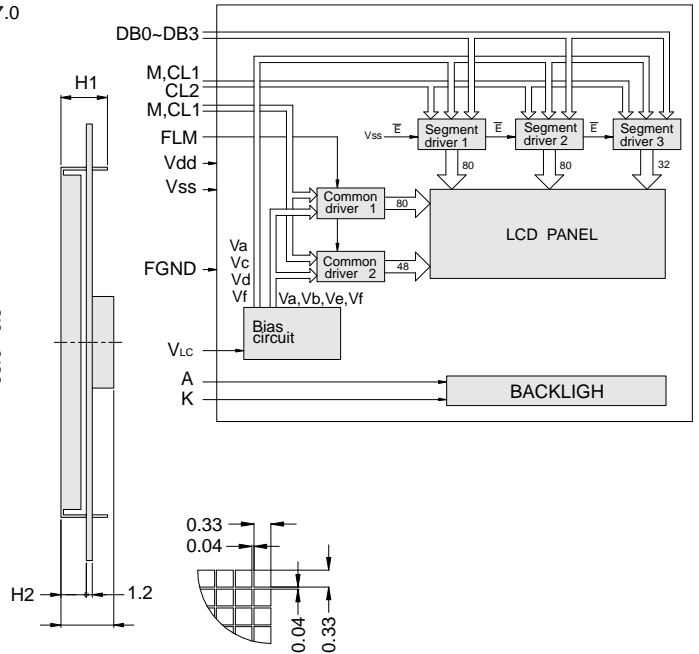
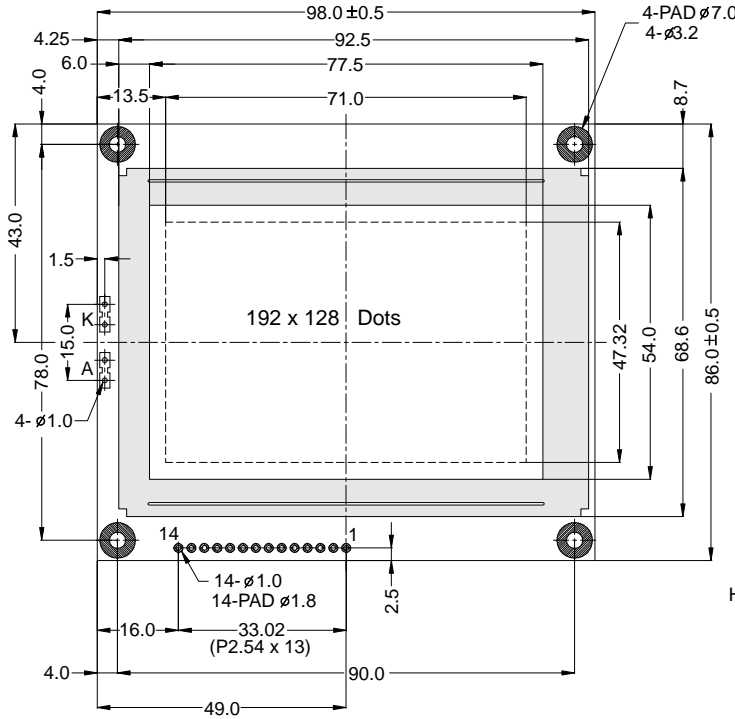




OUTLINE DIMENSION & BLOCK DIAGRAM



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

MECHANICAL SPECIFICATION			
Overall Size	98.0 x 86.0	Module	H2 / H1
View Area	75.0 x 54.0	W/O B/L	5.0 / 10.4
Dot Size	0.33 x 0.33	EL B/L	5.0 / 10.4
Dot Pitch	0.37 x 0.37	LED B/L	8.0 / 13.4

PIN ASSIGNMENT		
Pin no.	Symbol	Function
1,2	D3,D2	Data line
3	FLM	Shift direction select
4	M	Alternation control signal
5	CL1	Display data input colock
6	CL2	Display data input colock
7,8	D1,D0	Data line
9	Vdd	Power supply(+)
10	Vss	Power supply(GND)
11	Vlc	Contrast adjust
12	FGND	Frame adjust
13	K	Power supply for LED B/L (+)
14	A	Power supply for LED B/L (-)

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		
		-25°C	—	19.5	—	20.6	—	V	
		0°C	19.4	—	20.4	—	21.4	—	V
		25°C	18.0	17.0	18.9	17.9	19.8	18.8	V
		50°C	16.1	—	16.9	—	17.7	—	V
70°C	—	15.4	—	16.3	—	17.2	V		
LCM current consumption (No B/L)	Idd	Vdd=5V	—	2.5	—	mA			
Backlight current consumption	LED/edge	VB/L=4.2V	—	85	—	mA			
	LED/array	VB/L=4.2V	—	—	—	mA			

REMARK

LCD option: STN, TN, FSTN

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

