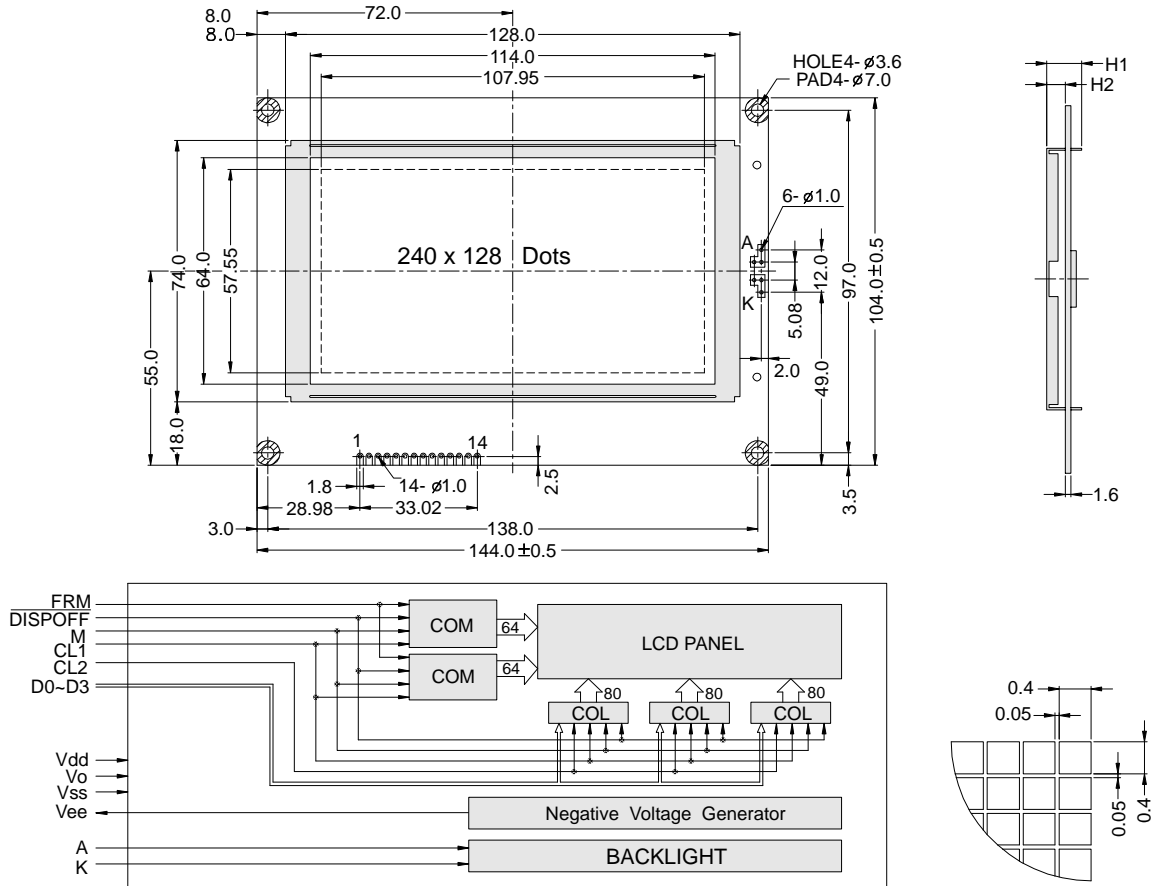




OUTLINE DIMENSION & BLOCK DIAGRAM



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

MECHANICAL SPECIFICATION			
Overall Size	144.0 x 104.0	Module	H2 / H1
View Area	114.0 x 64.0	W/O B/L	5.2 / 9.8
Dot Size	0.40 x 0.40	EL B/L	5.2 / 9.8
Dot Pitch	0.45 x 0.45	LED / CCFL B/L	9.2 / 13.8

PIN ASSIGNMENT		
Pin no.	Symbol	Function
1	Vo	Contrast Adjust
2	Vee	Negative voltage output
3	DB0	Data bus line
4	DB1	Data bus line
5	DB2	Data bus line
6	DB3	Data bus line
7	M	Alternation control signal
8	Vss	Power supply(GND)
9	Vdd	Power supply(+)
10	CL2	Display data input colock
11	CL1	Display data input colock
12	FRM	Shift direction select
13	DISPOFF	Column output control
14	FG	Frame ground

ABSOLUTE MAXIMUM RATING									
Item	Symbol	Condition	Min.	Max.	Units				
Supply for logic voltage	Vdd-Vss	25°C	-0.3	7	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	—	18.8	—	19.8	—	20.8	V
		0°C	12.5	—	13.1	—	13.7	—	V
		25°C	11.7	17.2	12.3	18.1	12.9	19.1	V
		50°C	10.9	—	11.4	—	11.9	—	V
70°C	—	16.1	—	16.9	—	17.7	V		
LCM current consumption (No B/L)	Idd	Vdd=5V	—	7	—	mA			
Backlight current consumption	LED/edge	VB/L=3.5V	—	120	—	mA			
	LED/array	VB/L=4.2V	—	900	—	mA			

REMARK

LCD option: STN, TN, FSTN

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

