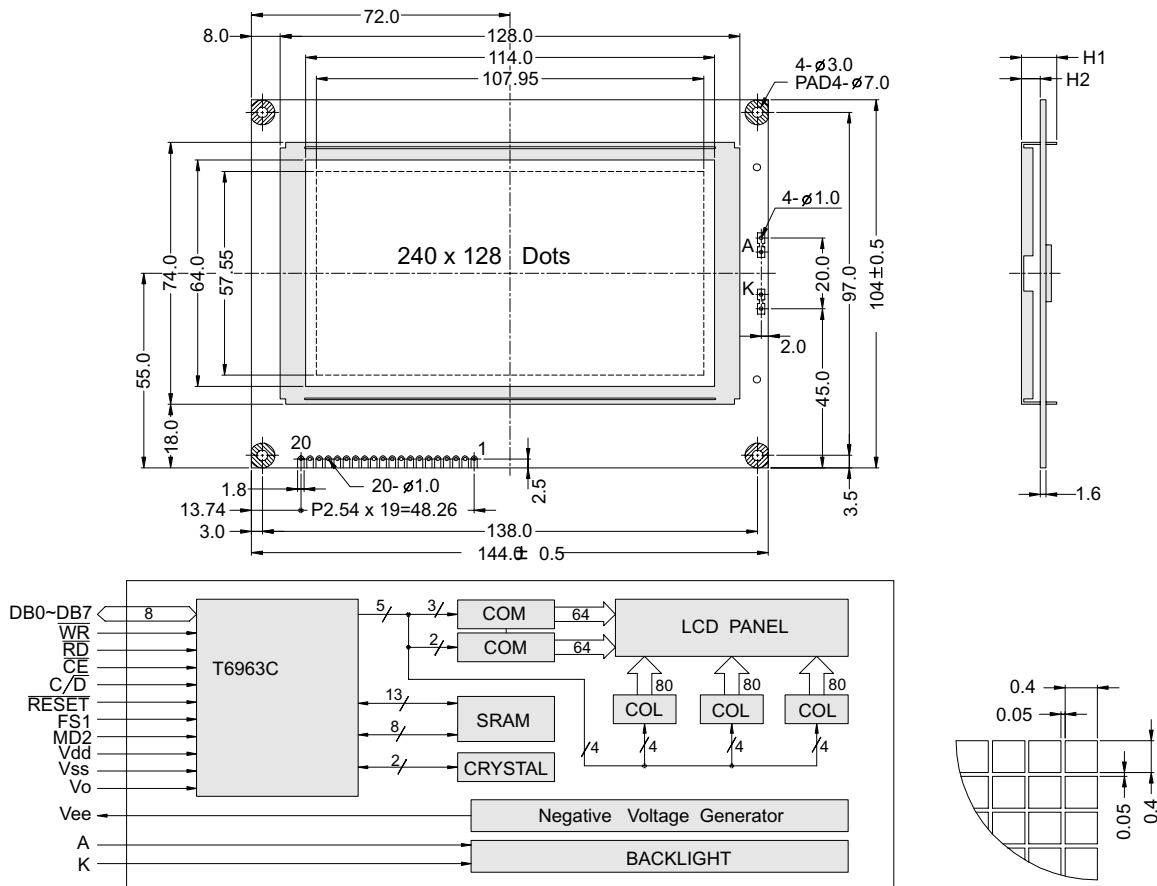




OUTLINE DIMENSION & BLOCK DIAGRAM



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	Vss	Power supply(GND)
2	Vdd	Power supply(+)
3	Vo	Contrast Adjust
4	C/D	Command / data select
5	RD	Data read
6	WR	Data write
7-14	DB0-DB7	Data bus line
15	CE	Chip enable
16	RST	Reset
17	Vee	Negative output
18	MD2	Select number of columns
19	FS1	Font selection
20	NC	No connection

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	-	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	-	35	50	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.

