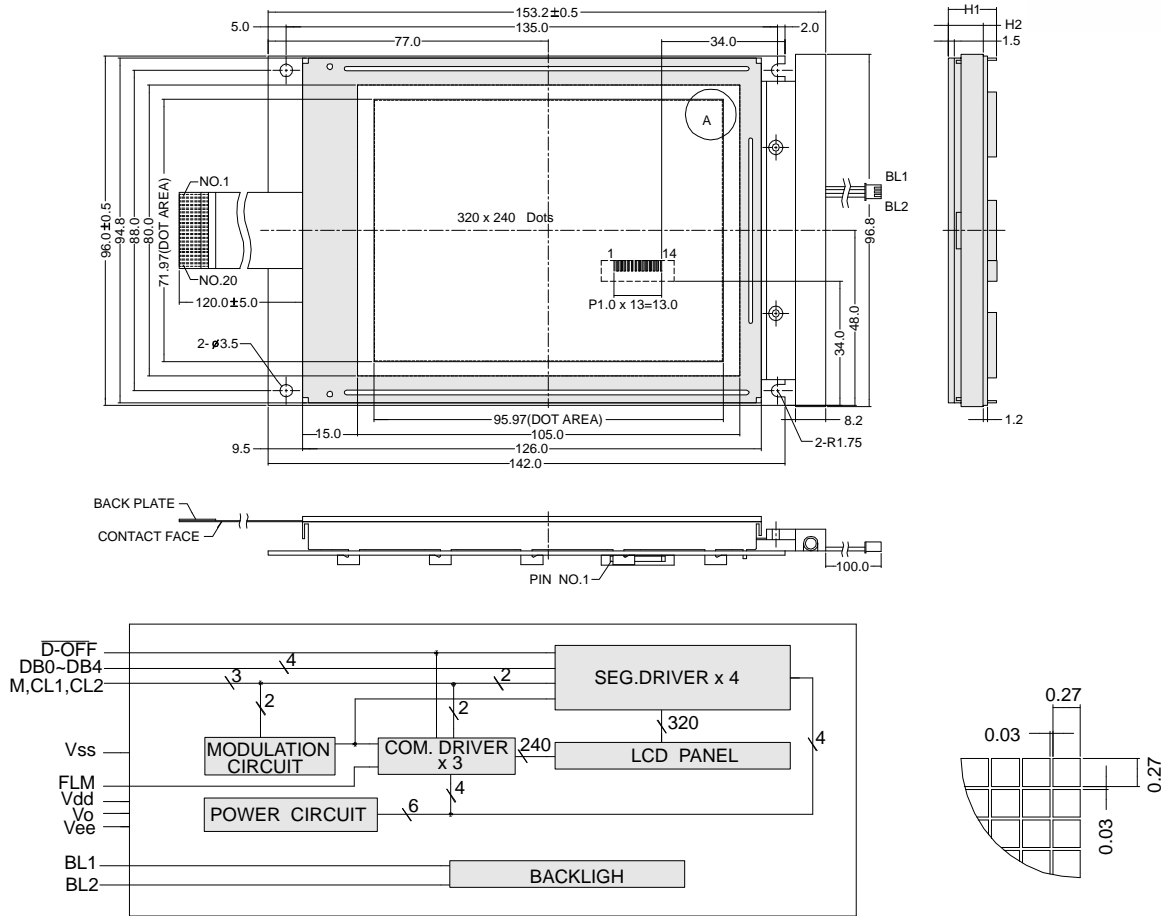




**OUTLINE DIMENSION & BLOCK DIAGRAM**



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

MECHANICAL SPECIFICATION			
Overall Size	153.2 x 96.0	Module	H2 / H1
View Area	105.0 x 80.0	W/O B/L	- / -
Dot Size	0.27 x 0.27	EL B/L	- / -
Dot Pitch	0.30 x 0.30	LED / CCFL B/L	10.5 / 20.3

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

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	+35.0	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	-	26.9	-	28.4	-	29.9	V
		0°C	25.5	-	27	-	28.5	-	V
		25°C	23.5	24.4	25	25.9	28.5	27.4	V
		50°C	21	-	22.5	-	24	-	V
70°C	-	22	-	23.5	-	25	V		
LCM current consumption (No B/L)	Idd	Vdd=5V	-	4	7	mA			
Backlight current consumption	LED/edge	VB/L=4.2V	-	180	-	mA			
	LED/white	VB/L=3.5V	-	120	-	mA			

**REMARK**

LCD option: STN, TN, FSTN

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

