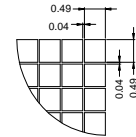
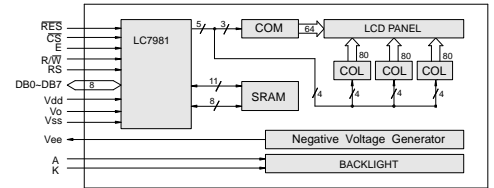
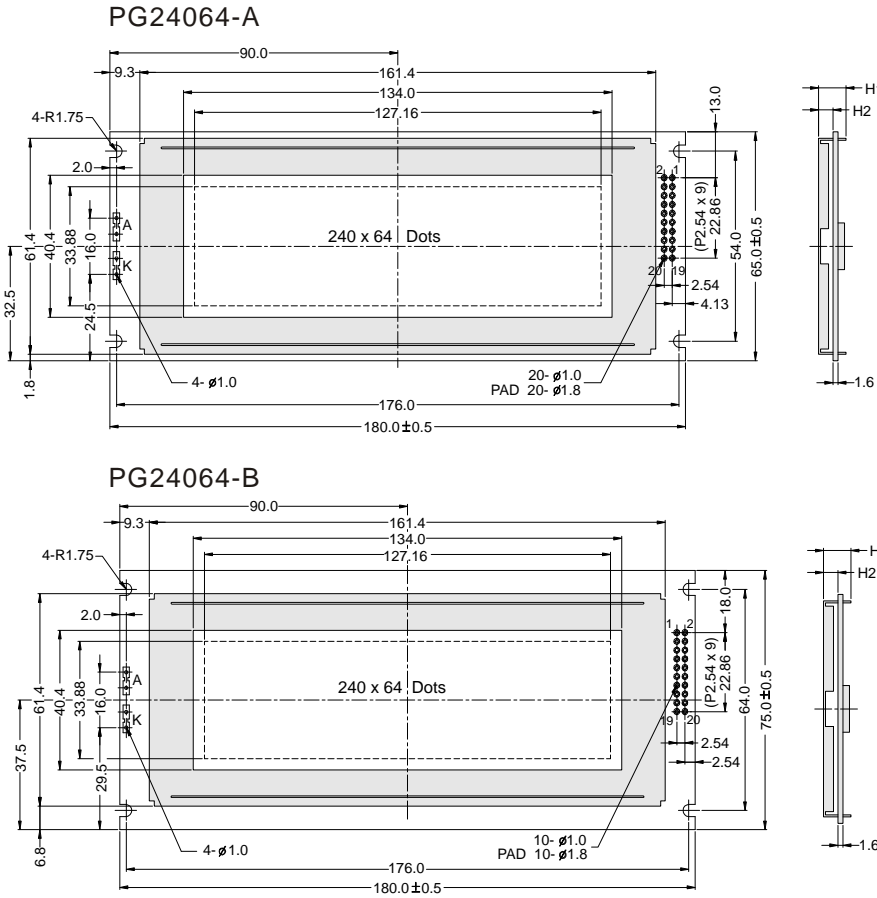




OUTLINE DIMENSION & BLOCK DIAGRAM



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

MECHANICAL SPECIFICATION			
Overall Size	180.0 x 65.0	Module	H2 / H1
View Area	134.0 x 40.4	W/O B/L	4.5 / 8.6
Dot Size	0.49 x 0.49	EL B/L	4.5 / 8.6
Dot Pitch	0.53 x 0.53	LED / CCFL B/L	9.2 / 13.3

PIN ASSIGNMENT		
Pin no.	Symbol	Function
1	Vss	Power supply(GND)
2	Vdd	Power supply(+)
3	Vo	Contrast adjust
4	RS	Command / data select
5	R/W	Data read / write
6	E	Enable signal
7-14	DB0-DB7	Data bus line
15	CS	Chip select
16	RST	Reset
17	Vee	Negative voltage output
18	NC	No Connection
19	A	Power supply for LED B/L(+)
20	K	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	4.75	—	5.25	V			
LCD operation voltage	Vop	Top	N	W	N	W	V		
		-25°C	—	14.3	—	14.7	—	V	
		0°C	9.7	—	10.2	—	10.7	V	
		25°C	8.9	13.2	9.4	13.6	9.9	14	V
		50°C	8.6	—	9.1	—	9.6	—	V
		70°C	—	12	—	12.4	—	12.8	V
LCM current consumption (No B/L)	Idd	Vdd=5V	—	42	—	mA			
Backlight current consumption	LED/edge	VB/L=3.5V	—	80	—	mA			
	LED/array	VB/L=4.2V	—	650	—	mA			

REMARK

LCD option: STN, TN, FSTN

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

