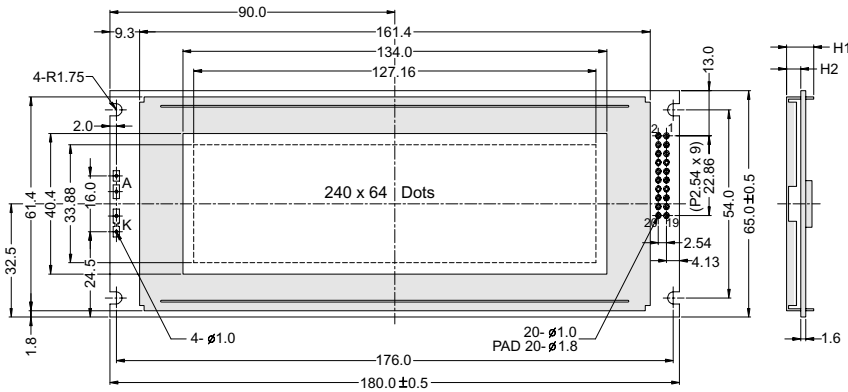


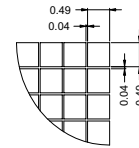
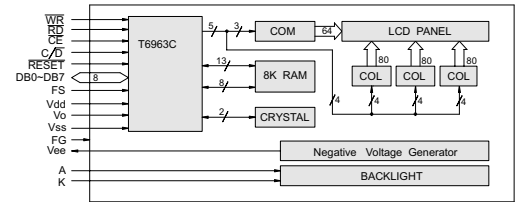
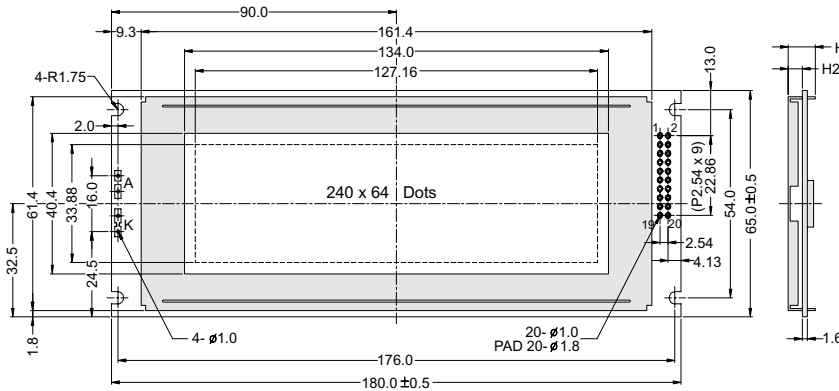


**OUTLINE DIMENSION & BLOCK DIAGRAM**

**PG 24064-E**



**PG 24064-F**



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	FG	Frame ground
2	Vss	Power supply(GND)
3	Vdd	Power supply(+)
4	Vo	Contrast Adjust
5	WR	Data write
6	RD	Data read
7	CE	Chip enable
8	C/D	Command / data select
9	Vee	Negative output
10	RST	Reset
11-18	DB0-DB7	Data bus line
19	FS	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	-	14.3	-	14.7	-	15.1	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	-	10	-	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.

