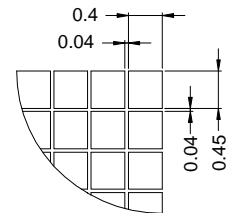
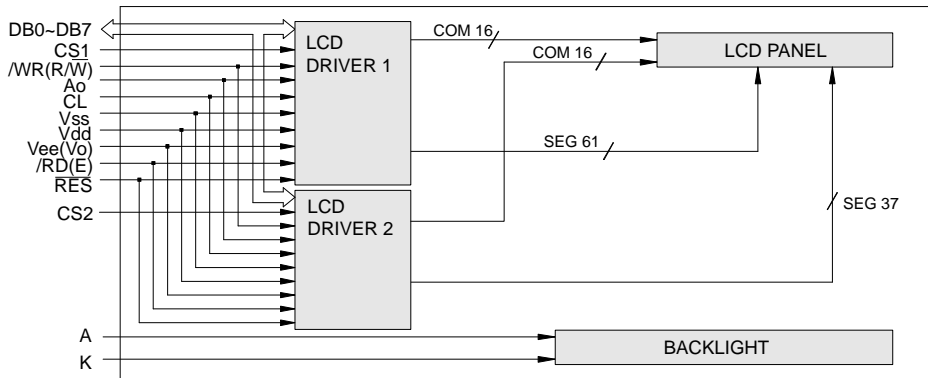
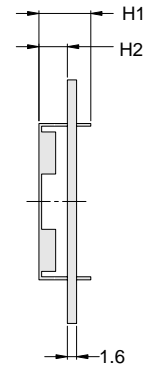
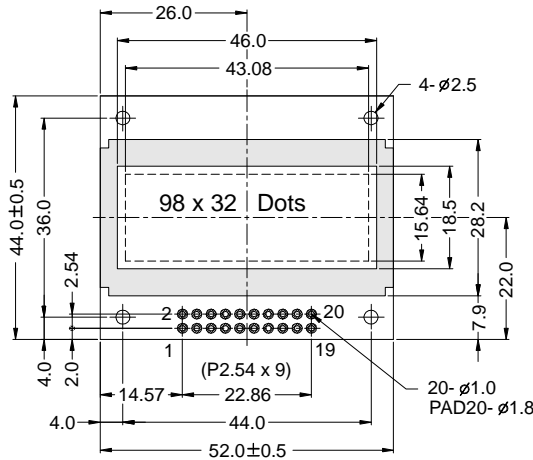




OUTLINE DIMENSION & BLOCK DIAGRAM



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

MECHANICAL SPECIFICATION			
Overall Size	52.0 x 44.0	Module	H2 / H1
View Area	46.0 x 18.5	W/O B/L	5.1 / 9.20
Dot Size	0.40 x 0.45	EL B/L	- / -
Dot Pitch	0.44 x 0.459	LED B/L	8.9 / 13.0

PIN ASSIGNMENT		
Pin no.	Symbol	Function
1	Vss	Power supply(GND)
2	Vdd	Power supply(+)
3	Vee(Vo)	Contrast Adjust
4	A0	Command / Data select
5	CS1	Chip select driver 1
6	CS2	Chip select driver 2
7	CL	External clock input
8	E	Enable signal
9	R/W	Data read / write
10-17	DB0-DB7	Data bus line
18	RES	Reset
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	8.0	V				
LCD driving supply voltage	Vdd-Vee	25°C	-0.3	16.5	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	2.7	-	5.5	V			
LCD operation voltage	Vop	Top	N	W	N	W	V		
		-20°C	-	6.1	-	6.4	-	6.7	V
		0°C	-	-	-	-	-	-	V
		25°C	-	6	-	6.3	-	6.6	V
		50°C	-	-	-	-	-	-	V
70°C	-	5.8	-	6.1	-	6.4	V		
LCM current consumption (No B/L)	Idd	Vdd=5V	-	1.0	2.5	mA			
Backlight current consumption	LED/edge	VB/L=4.2V	-	-	-	mA			
	LED/array	VB/L=4.2V	-	120	-	mA			

REMARK

LCD option: STN, TN, FSTN

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

