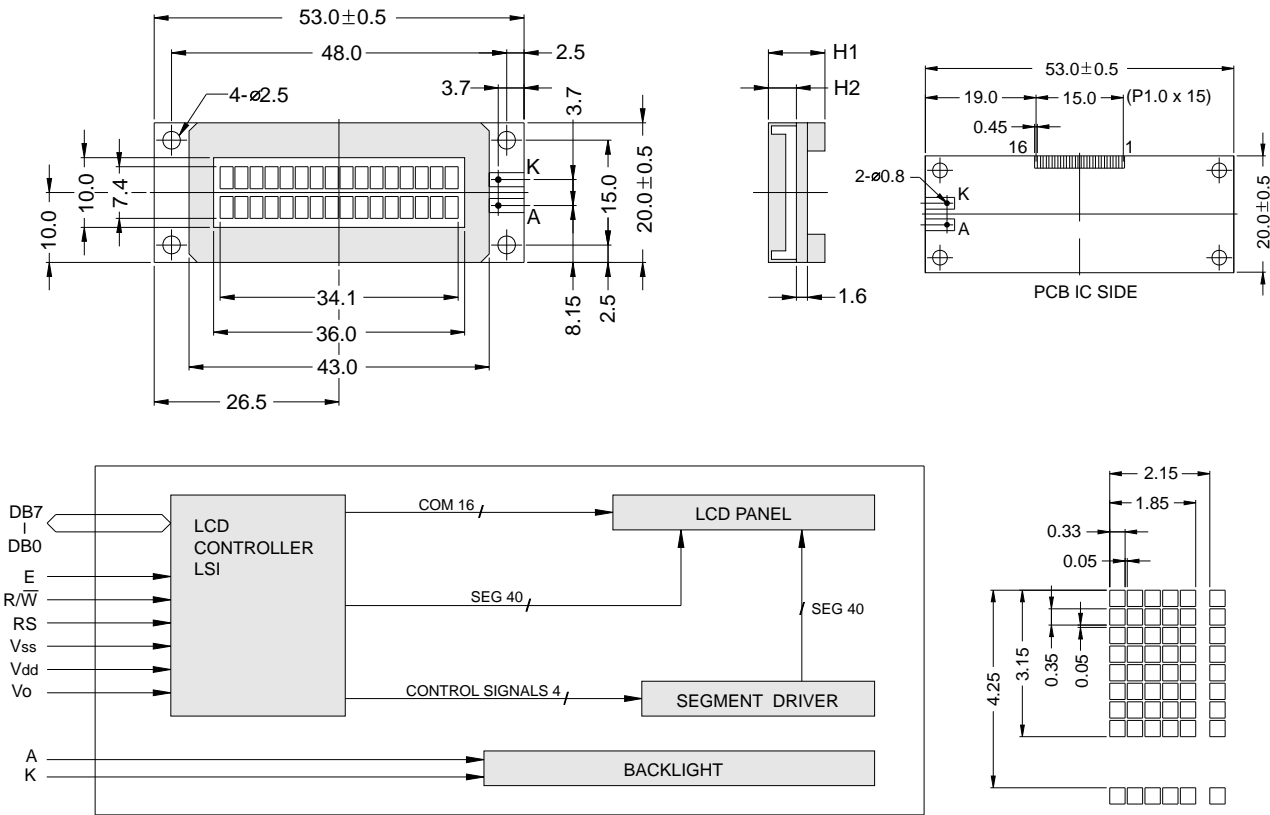




**OUTLINE DIMENSION & BLOCK DIAGRAM**



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

MECHANICAL SPECIFICATION			
Overall Size	53.0 x 20.0	Module	H2 / H1
View Area	36.0 x 10.0	W/O B/L	4.0 / 8.1
Dot Size	0.33 x 0.35	EL B/L	- / -
Dot Pitch	0.38 x 0.40	LED B/L	4.0 / 8.1

PIN ASSIGNMENT		
Pin no.	Symbol	Function
1	Vss	Power supply(GND)
2	Vdd	Power supply(+)
3	Vo	Contrast Adjust
4	RS	Register select signal
5	R/W	Data read / write
6	E	Enable signal
7	DB0	Data bus line
8	DB1	Data bus line
9	DB2	Data bus line
10	DB3	Data bus line
11	DB4	Data bus line
12	DB5	Data bus line
13	DB6	Data bus line
14	DB7	Data bus line
15	A	Power supply for LED B/L (+)
16	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	V						
LCD driving supply voltage	Vdd-Vee	25°C	-0.3	13	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	N	W	N	W	V
		-20°C	-	7.1	-	7.5	-	7.9	-	-	V
		0°C	4.8	-	5.1	-	5.4	-	-	-	V
		25°C	4.4	6.1	4.7	6.4	5	6.7	-	-	V
		50°C	3.9	-	4.2	-	4.5	-	-	-	V
		70°C	-	5.7	-	6	-	6.3	-	-	V
LCM current consumption (No B/L)	Idd	Vdd=5V	-	2	3	mA					
Backlight current consumption	LED/edge	VB/L=4.2V	-	20	-	mA					
	LED/array	VB/L=4.2V	-	-	-	mA					

**REMARK**

LCD option: STN, TN, FSTN

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

