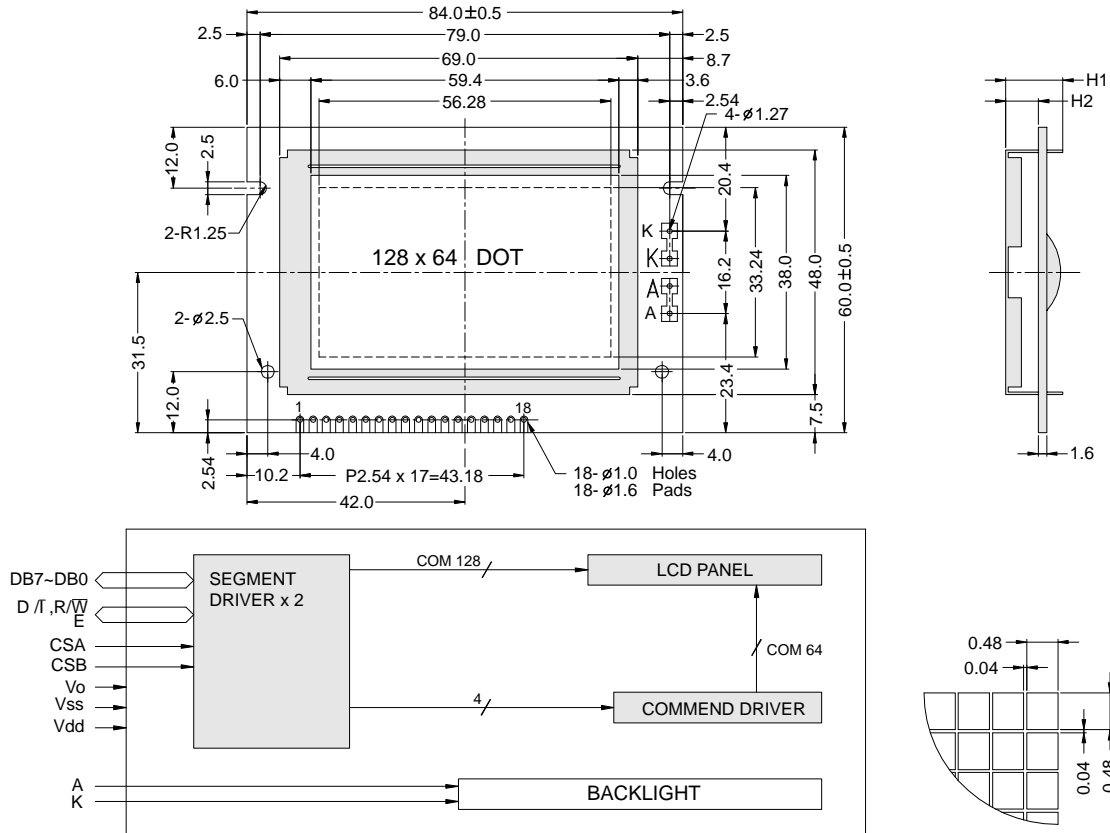


**OUTLINE DIMENSION & BLOCK DIAGRAM**



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

MECHANICAL SPECIFICATION			
Overall Size	84.0 x 60.0	Module	H2 / H1
View Area	59.4 x 38.0	W/O B/L	3.6 / 8.2
Dot Size	0.40 x 0.48	EL B/L	3.6 / 8.2
Dot Pitch	0.44 x 0.52	LED B/L	6.3 / 11.0

PIN ASSIGNMENT		
Pin no.	Symbol	Function
1-8	DB0-DB7	Data bus line
9	E	Enable signal
10	R/W	Data read / write
11	D/I	Command /Data select
12	Vo	Contrast Adjust
13	Vdd	Power supply(+)
14	Vss	Power supply(GND)
15	K	Power supply for LED B/L(-)
16	A	Power supply for LED B/L(+)
17	CSA	Chip selection driver 1
18	CSB	Chip selection driver 2

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	-0.3	19.0	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	9.5	-	10	-	10.6	-	V
		25°C	8.8	13.2	9.3	13.6	9.8	14	V
		50°C	8.5	-	9	-	9.5	-	V
		70°C	-	12	-	12.4	-	12.8	V
LCM current consumption (No B/L)	Idd	Vdd=5V	-	1.5	3	mA			
Backlight current consumption	LED/edge	VB/L=4.2V	-	100	-	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.

