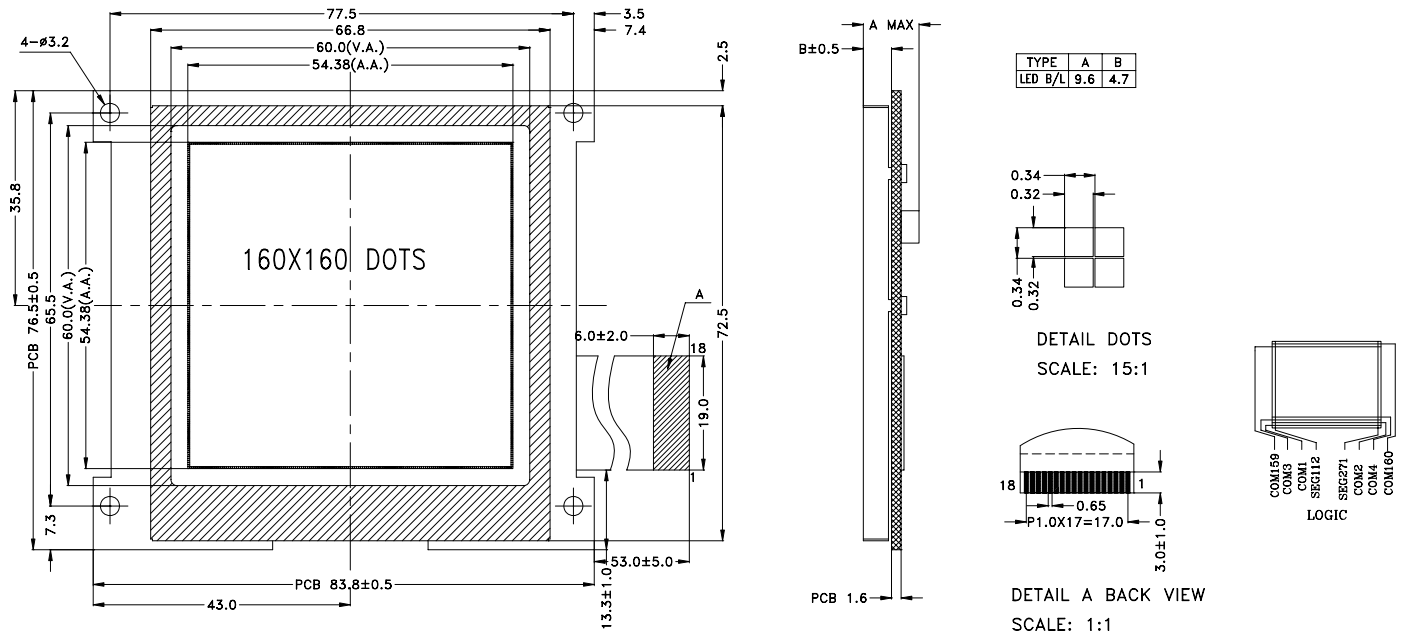


## Outline Dimension



## Graphic Type

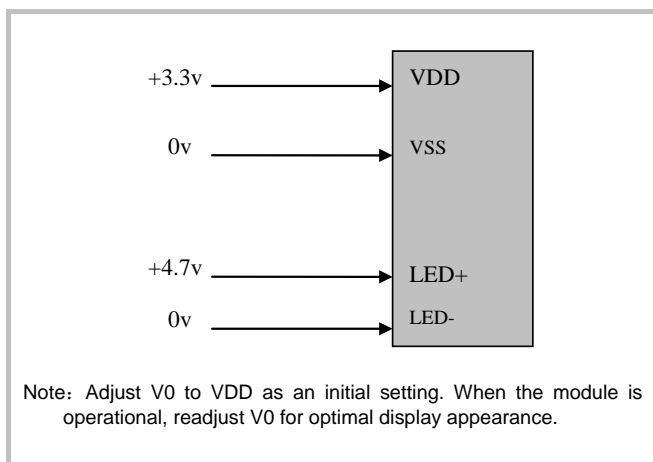
### Feature :

- 160x160 dot-matrix
- FSTN/Transflective/Positive/B-W
- Backlight: White /side light
- Operating Temp.: -20°C ~ +70°C
- 1/160 duty cycle, 1/10 Bias
- Built-in Controller (UC1698 or equivalent)
- Viewing angle: 6 o'clock

### Absolute Maximum Rating :

Item	Symbol	Standard value			Unit
		M <sub>IN</sub>	T <sub>YP</sub>	M <sub>AX</sub>	
Power supply for logic	V <sub>DD</sub> -V <sub>SS</sub>	-0.5	--	4.0	V
Input voltage	V <sub>I</sub>	-0.5	--	V <sub>DD</sub> +0.5	V

### Adjusting Display Contrast :



### Electrical Characteristic : (V<sub>SS</sub>=0V, T<sub>a</sub> = 25°C)

Parameter	Symbol	Condition	M <sub>IN</sub>	T <sub>YP</sub>	M <sub>AX</sub>	Unit
Supply voltage for logic	V <sub>DD</sub>	--	3.1	3.3	3.5	V
Supply current for logic	I <sub>DD</sub>	--	--	3	--	mA
Operating voltage for LCD	V <sub>LCD</sub>	-20°C	--	--	--	V
		+25°C	--	16.5	--	V
		+70°C	--	--	--	V
Supply voltage for Backlight	V <sub>BL</sub>	--	--	4.7	--	V
Supply current for Backlight	I <sub>BL</sub>	--	--	75	--	mA

### Interface Pin Connections :

Pin No.	Symbol	Level	Description
1	VSS	0V	The ground of power.
2	A0	H/L	Selects Control data or Display data for read/write operation. "L": Control data "H": Display data
3	WR	H/L	Write control input pin(Write signal)
4	RD	H/L	Read enable signal(Read signal)
5	XCS	H/L	Chip Select. Chip is selected when XCS = "L".
6	RST	H/L	When RST="L", all control registers are re-initialized by their default states. Since UC1698u has built-in Power-ON reset and software reset commands, RST pin is not required for proper chip operation.
7	VDD	+3.3V	Supply voltage for logic operating.
8~15	DB0~DB7	H/L	8-bit bi-directional data bus.
16	LED-	0V	The backlight ground.
17	NC	--	Non-connection.
18	LED+	+4.7V	Power supply for Backlight