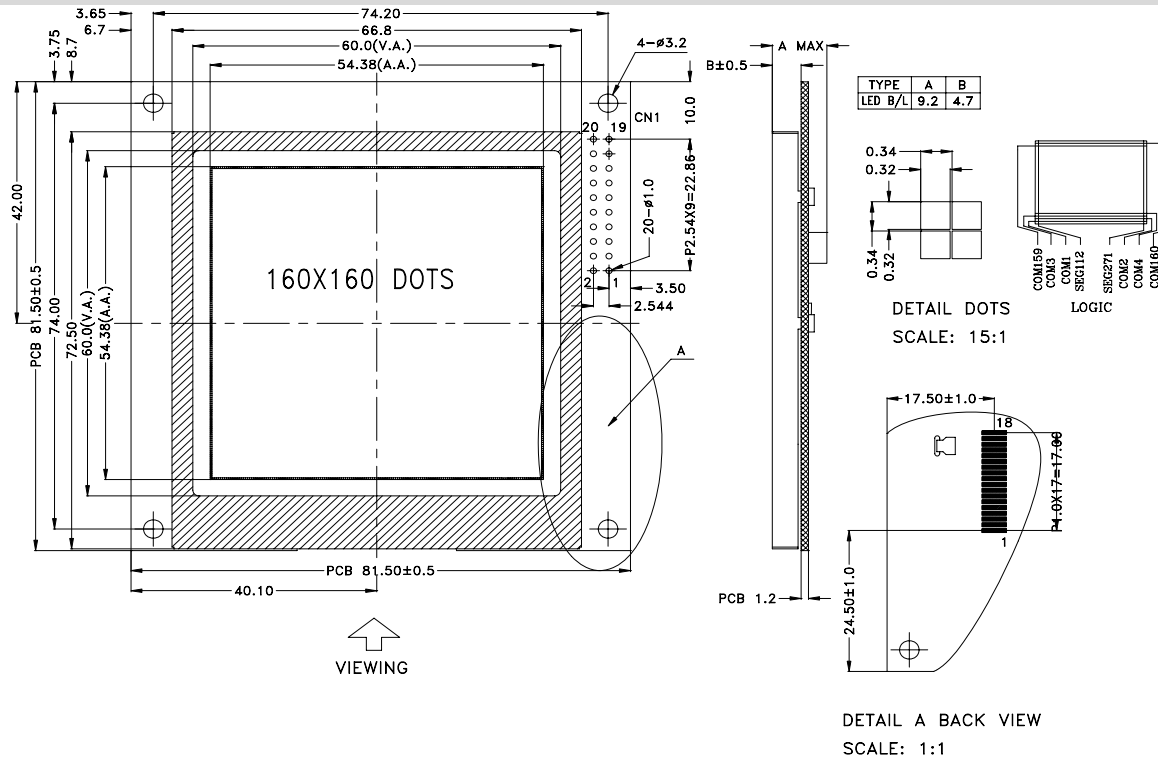


Outline Dimension



Graphic Type

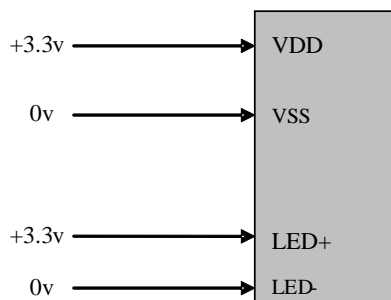
Feature :

- 160x160 dot-matrix
- FSTN/Transflective/Positive/B-W
- Backlight: White /side light
- Operating Temp.: -20°C ~ +70°C
- 1/160 duty cycle, 1/12 Bias
- Built-in Controller (UC1698 or equivalent)
- Viewing angle: 6 o'clock

Absolute Maximum Rating :

Item	Symbol	Standard value			Unit
		M _{IN}	T _{YP}	M _{AX}	
Power supply for logic	V _{DD} -V _{SS}	-0.5	--	4.0	V
Input voltage	V _I	-0.5	--	V _{DD} +0.5	V

Adjusting Display Contrast :



Note: Adjust V0 to VDD as an initial setting. When the module is operational, readjust V0 for optimal display appearance.

Electrical Characteristic : (V_{SS}=0V, T_a = 25°C)

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

Interface Pin Connections :

CN1:

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.
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+	+3.3V	Power supply for Backlight

CN2:

Pin No.	Symbol	Level	Description
1	VSS	0V	The ground of power.
2	VDD	+3.3V	Supply voltage for logic operating.
3	NC	--	Non-connection.
4	WR	H/L	Write control input pin(Write signal)
5	RD	H/L	Read enable signal(Read signal)
6	XCS	H/L	Chip Select. Chip is selected when XCS = "L".
7	A0	H/L	Selects Control data or Display data for read/write operation."L": Control data "H": Display data
8	RST	H/L	When RST="L", all control registers are re-initialized by their default states.
9-16	DB0~DB7	H/L	8-bit bi-directional data bus.
17-18	NC	--	Non-connection.
19	LED+	+3.3V	Power supply for Backlight
20	LED-	0V	The backlight ground.