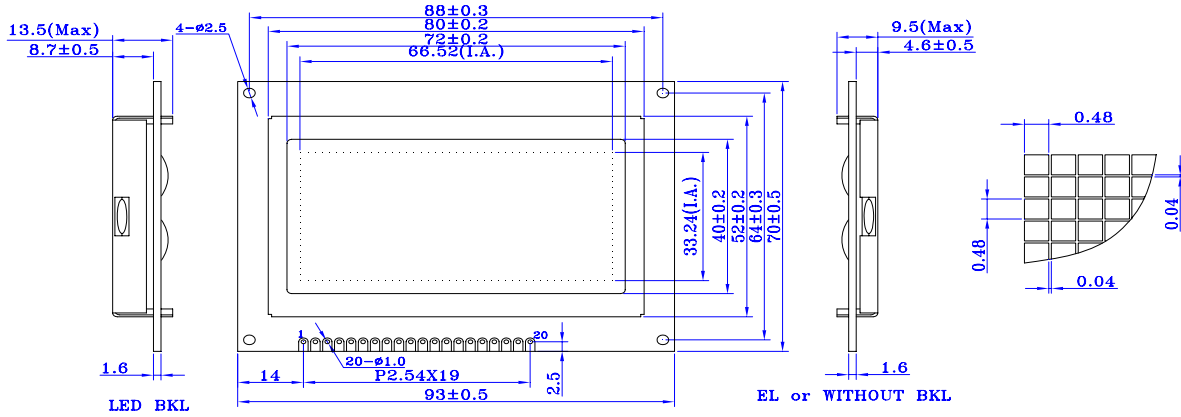
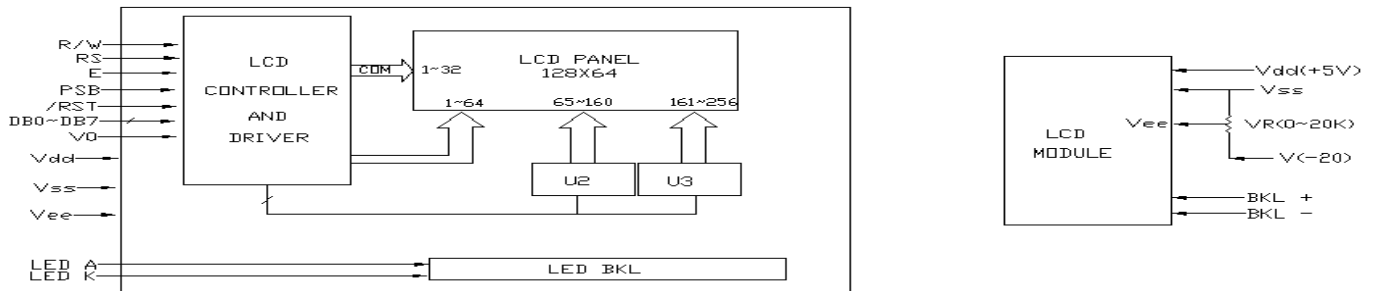


◆ **OUTLINE DIMENSION**



◆ **BLOCK DIAGRAM & POWER SUPPLY**



◆ **MECHANICAL SPEC. & FEATURES**

Item	Dimension(mm)	Features	
Module Size(W×H×T)	93.0×70.0×10.0/13.0	LC Fluid	STN (Yellow-green, Gray, Blue), FSTN
Viewing Area(W×H)	72.0×40.0	Polarizer	Reflective, Transflective, Transmissive
Dot Size(W×H)	0.48×0.48	View Angle	6:00 o'clock or 12:00 o'clock
Dot Pitch(W×H)	0.52×0.52	Display Type	Positive or Negative
Dots×Dots	128×64	Backlight	LED (Optional)
		Operating Temp.	0°C~50°C or -20°C~70°C
		Controller	ST7920 or Equivalent

◆ **INTERFACE PIN CONNECTIONS**

Pin No.	Symbol	Function	Pin No.	Symbol	Function
1	Vss	Ground for logic	15	PSB	Interface selection
2	Vdd	Power supply for logic	16	NC	
3	Vo	Power supply for LCD	17	/RST	Reset signal
4	RS	Register selection (H:Data, L:Instruction)	18	Vee	Negative voltage output
5	R/W	Read/Write selection (H: R, L: W)	19	A	BKL +
6	E	Enable signal	20	K	BKL -
7~14	DB0~DB7	Data bus lines			

◆ **ELECTRICAL CHARACTERISTICS**

Item	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Operating Voltage	Vdd	Ta=25°C	---	5.0	---	V
Operating Voltage for LCD	Vlcd	Ta=25°C	---	10.5	---	V
Supply Current	Idd	Ta=25°C, Vdd=5.0V	---	2.5	3.0	mA
Supply Voltage for LED	Vf	Ta=25°C, R=6.8 Ω	---	4.2	---	V
Supply Current for LED	If	Ta=25°C, Vf=4.2V	---	300	---	mA