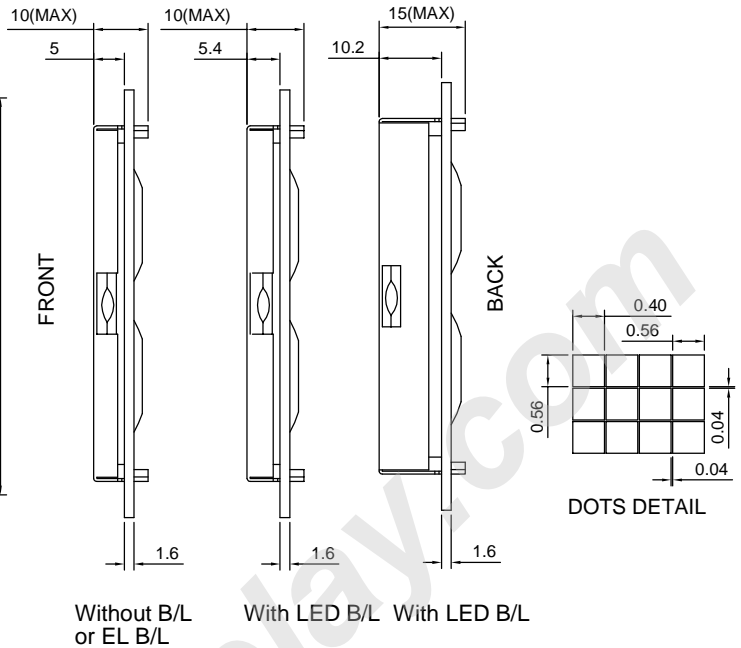
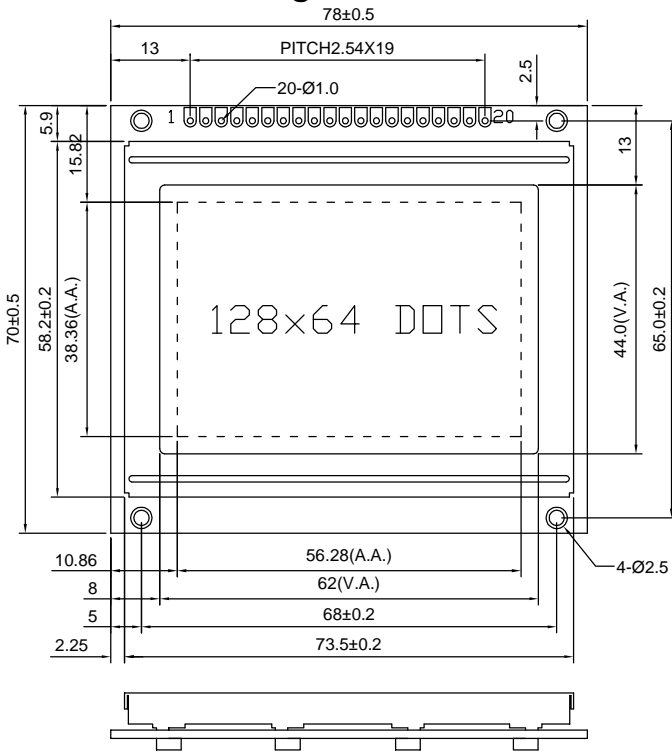


Dimension Drawing



TOLERANCES UNLESS OTHERWISE STATED
 X.X ±0.20 X.XX ±0.10 UNIT: mm

Feature:

1. 128 x 64 dots graphic display
2. Built-in controller(RA6963 or equivalent)
3. +5V power supply(also available for +3.3V)
4. 1/64 Duty cycle
5. STN or FSTN Mode
6. Match all kind colors of LED back light
7. ROHS compliant

Mechanical Data

Item	Standard	Unit
Module dimension	78.0 x 70.0	mm
Viewing area	62.0 x 44.0	mm
Mounting hole	68.0 x 65.0	mm
Dots size	0.56x 0.48	mm

Interface Pin Connections

PIN NO.	Symbol	Function
1	FGND	Frame ground
2	VSS	GND
3	VDD	+5V or +3.3V
4	V0	Contrast adjustment
5	/WR	Write enable signal
6	/RD	Read enable signal
7	/CE	Chip enable signal
8	C/D	H → Data L → Instruction
9	/RST	Reset signal
10	DB0	H/L Data bus line
11	DB1	H/L Data bus line
12	DB2	H/L Data bus line
13	DB3	H/L Data bus line
14	DB4	H/L Data bus line
15	DB5	H/L Data bus line
16	DB6	H/L Data bus line
17	DB7	H/L Data bus line
18	FS	Font selection
19	A	Power supply for B/L(LED+)
20	K	Power supply for B/L(LED-)

Absolute Maximum Rating

Item	Symbol	Standard			Unit
		Min	Typ	Max	
Power supply	VDD-VSS	-0.3	---	7.0	V
Input voltage	VI	-0.3	---	VDD+0.3	

Electronical Characteristics

Item	Symbol	Condition	Standard			Unit
			Min	Typ	Max	
Input voltage	VDD	+5.0V	4.5	5.0	5.5	V
		+3.3V	3.0	3.3	4.5	
Supply current	I _{DD}	VDD=5V	----	3	5	mA
Recommended LCD driving voltage for normal temp version module	VDD-V0 (VDD=5V)	-20 °C	9.8	10.0	10.3	
		0 °C	9.5	9.8	10.1	
		25 °C	9.2	9.5	9.8	
		50 °C	9.0	9.2	9.4	
		70 °C	8.7	8.9	9.2	
LED forward voltage	V _F	25 °C	----	4.2	4.6	V
LED forward current	I _F	25 °C	Array	----	300	
			Edge	----	60	80
EL power supply	I _{EL}	V _{EL} =110V AC 400Hz	----	----	5.0	mA