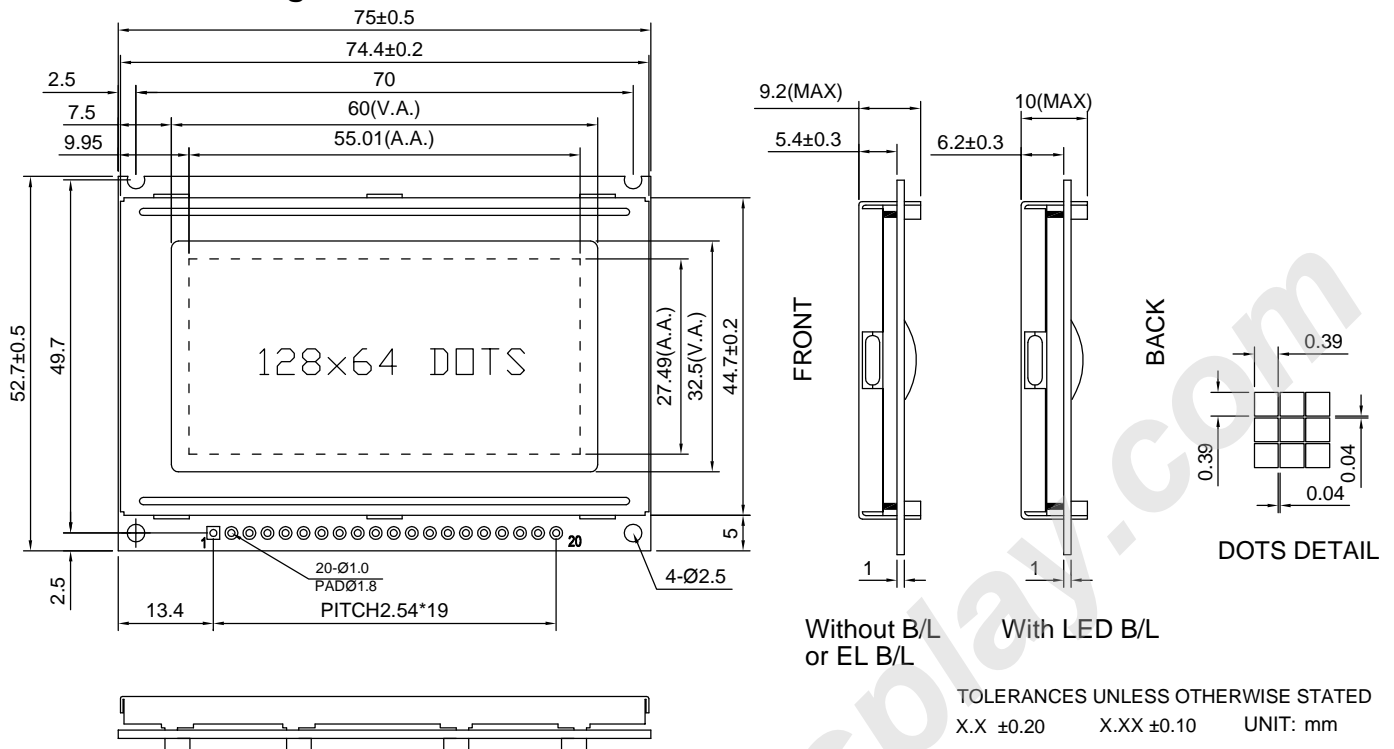


Dimension Drawing



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(NT7108 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	75.0 x 52.7	mm
Viewing area	60.0 x 32.5	mm
Mounting hole	70.0 x 49.7	mm
Dots size	0.48 x 0.48	mm

Interface Pin Connections

PIN NO.	Symbol	Function
1	VSS	GND
2	VDD	+5V or +3.3V
3	V0	Contrast adjustment
4	DB0	H/L Data bus line
5	DB1	H/L Data bus line
6	DB2	H/L Data bus line
7	DB3	H/L Data bus line
8	DB4	H/L Data bus line
9	DB5	H/L Data bus line
10	DB6	H/L Data bus line
11	DB7	H/L Data bus line
12	CS2	L → Chip2 Enable
13	CS1	L → Chip1 Enable
14	/RES	H → L Rest the LCM
15	R/W	H :Read data L :Write data
16	D/I	H → Data L → Instruction
17	E	Enable signal
18	VEE	Negative voltage output
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	VDD-19.0	---	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	2.7	3.3	4.5		
Supply current	I _{DD}	VDD=5V	----	----	0.5	mA	
Recommended LCD driving voltage for normal temp version module	VDD-V0 (VDD=5V)	-20 °C	9.8	10.0	10.3	V	
		0 °C	9.5	9.8	10.1		
		25 °C	9.2	9.5	9.8		
		50 °C	9.0	9.2	9.4		
LED forward voltage	V _F	25 °C	----	4.2	4.6	V	
LED forward current	I _F	25 °C	Array	----	300	----	mA
			Edge	----	60	80	
EL power supply	I _{EL}	V _{EL} =110V AC 400Hz	----	----	5.0	mA	