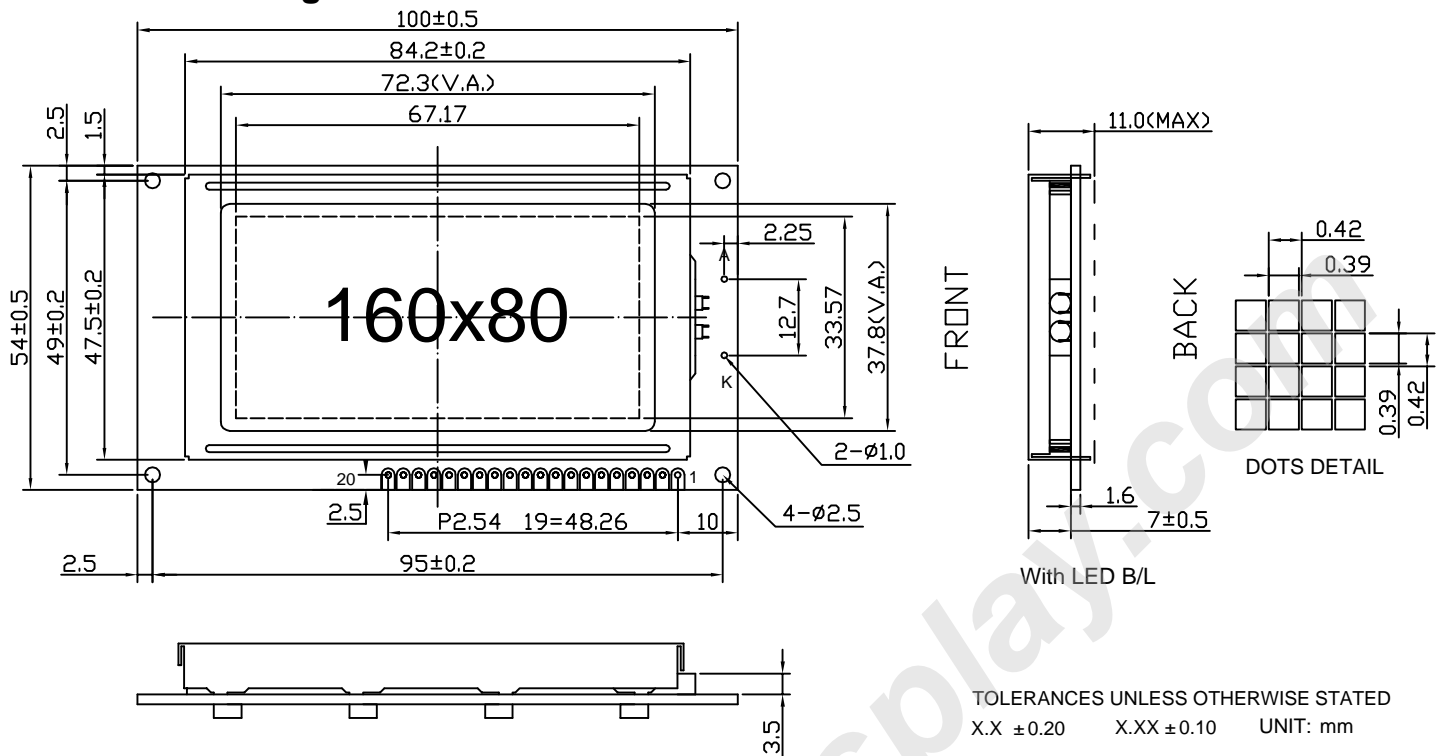


Dimension Drawing



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

Feature:

1. 160 x 80 Dots graphic display
2. Built-in controller(RA6963 or equivalent)
3. +5V Power supply(also available for +3.3V)
4. 1/80 Duty cycle
5. STN or FSTN Mode
6. Match all kind colors of LED back light
7. ROHS compliant

Interface Pin Connections

PIN NO.	Symbol	Function
1	VEE	Operating voltage for LCD
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	LEDA	Backlight (+) LED+
20	LEDK	Backlight (-) LED-

Mechanical Data

Item	Standard	Unit
Module dimension	100.0 x 54.0	mm
Viewing area	72.3 x 37.8	mm
Mounting hole	95.0 x 49.0	mm
Dots size	0.39 x 0.39	mm

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	15.3	15.6	15.9	
		0 °C	15.0	15.3	15.6	
		25 °C	14.7	15.0	15.3	
		50 °C	14.4	14.7	15.0	
LED forward voltage	V _F	25 °C	----	3.0	3.3	V
LED forward current	I _F	25 °C	Array	----	240	
			Edge	----	30	50
EL power supply	I _{EL}	V _{EL} =110V AC 400Hz	----	----	5.0	mA