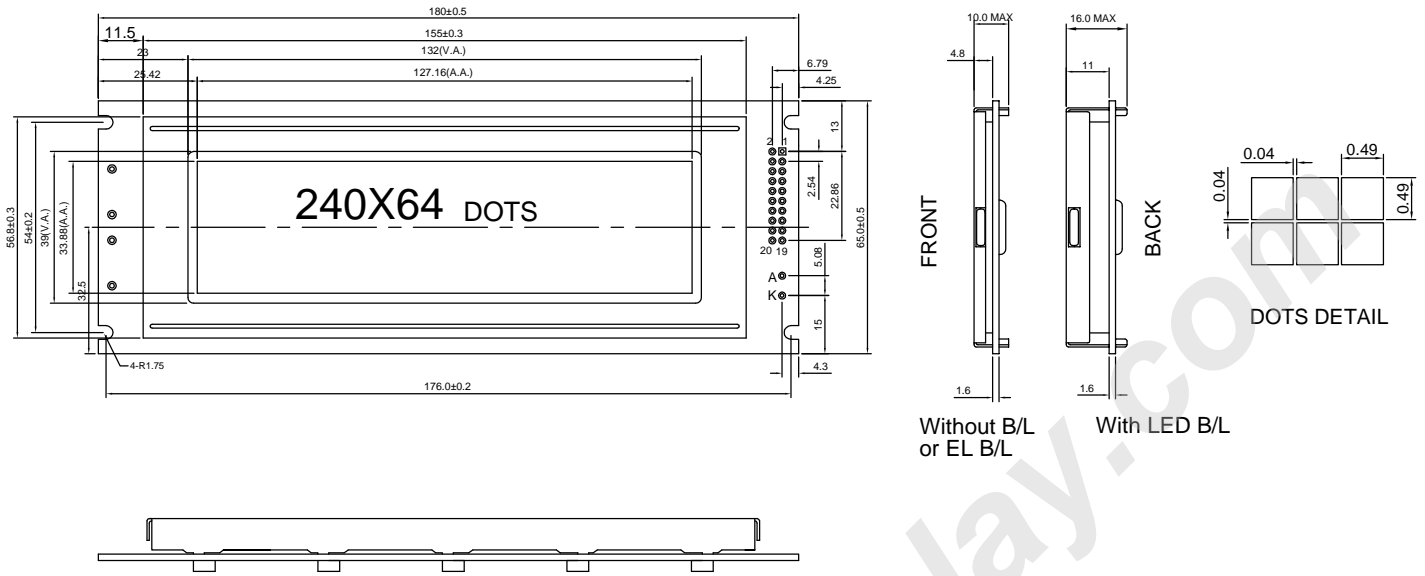


Dimension Drawing



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

Feature:

1. 240 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

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	VEE	Operating voltage for LCD
10	/RST	Reset signal
11	DB0	H/L Data bus line
12	DB1	H/L Data bus line
13	DB2	H/L Data bus line
14	DB3	H/L Data bus line
15	DB4	H/L Data bus line
16	DB5	H/L Data bus line
17	DB6	H/L Data bus line
18	DB7	H/L Data bus line
19	FS	Font selection
20	NC or LEDA	NC or Power supply for B/L(LED+)

Mechanical Data

Item	Standard	Unit
Module dimension	180.0 x 65.0	mm
Viewing area	132.0 x 39.0	mm
Mounting hole	176.0 x 54.0	mm
Dots size	0.49 x 0.49	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	12.8	13.0	13.2	
		0 °C	12.5	12.7	13.0	
		25 °C	12.2	12.5	12.8	
		50 °C	12.0	12.3	12.5	
LED forward voltage	V _F	25 °C	----	3.0	3.3	V
LED forward current	I _F	25 °C	Array	----	400	
			Edge	----	80	120
EL power supply	I _{EL}	V _{EL} =110V AC 400Hz	----	----	5.0	mA