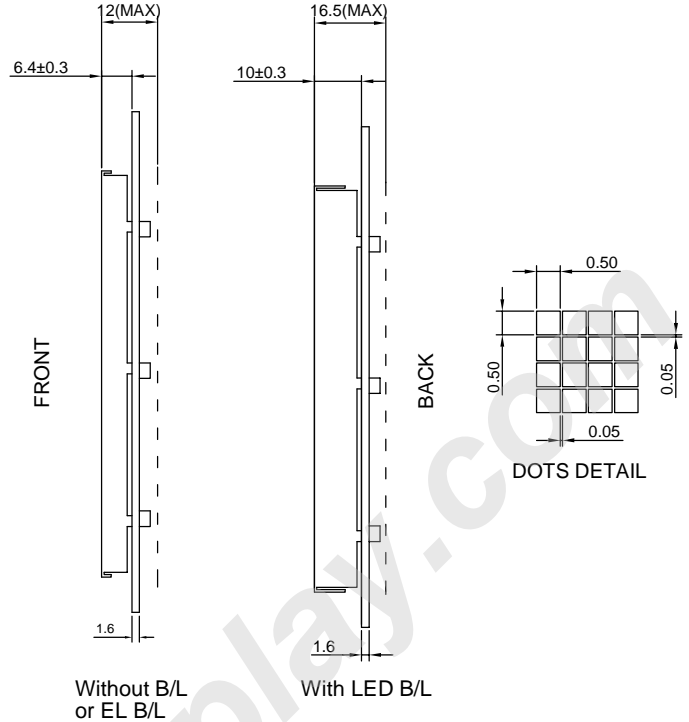
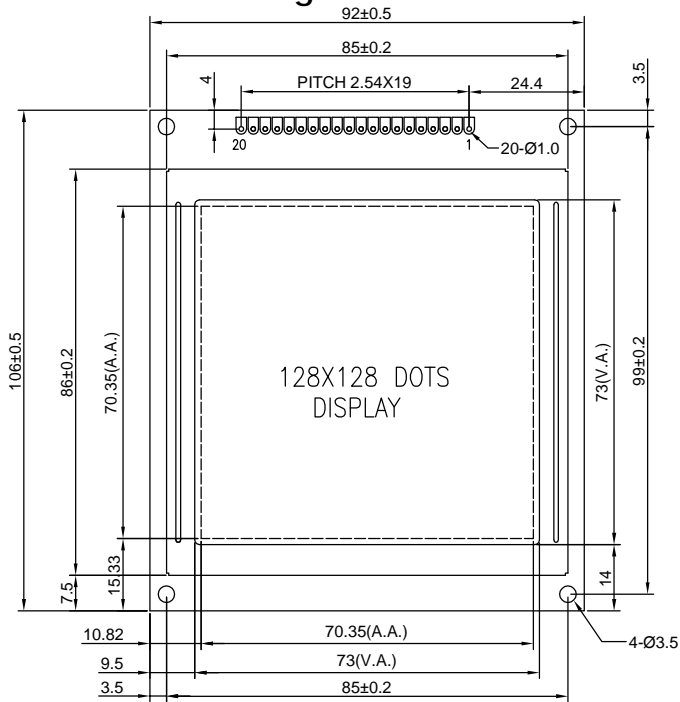


Dimension Drawing



Without B/L
or EL B/L

With LED B/L

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

Feature:

1. 128 x 128 Dots graphic display
2. Built-in controller(RA6963 or equivalent)
3. +5V Power supply(also available for +3.3V)
4. 1/128 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	/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	Power supply for B/L(LED+)
20	LEDK	Power supply for B/L(LED-)

Mechanical Data

Item	Standard	Unit
Module dimension	92.0 x 106.0	mm
Viewing area	73.0 x 73.0	mm
Mounting hole	99.0 x 85.0	mm
Dots size	0.50 x 0.50	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	

Electrical 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	18.8	19.0	19.2	
		0 °C	18.5	18.7	19.0	
		25 °C	18.2	18.5	18.8	
		50 °C	18.0	18.3	18.5	
		70 °C	17.8	18.1	18.3	
LED forward voltage	V _F	25 °C	----	3.0	3.3	V
LED forward current	I _F	25 °C	Array	----	400	
			Edge	----	60	80
EL power supply	I _{EL}	V _{EL} =110V AC 400Hz	----	----	5.0	mA