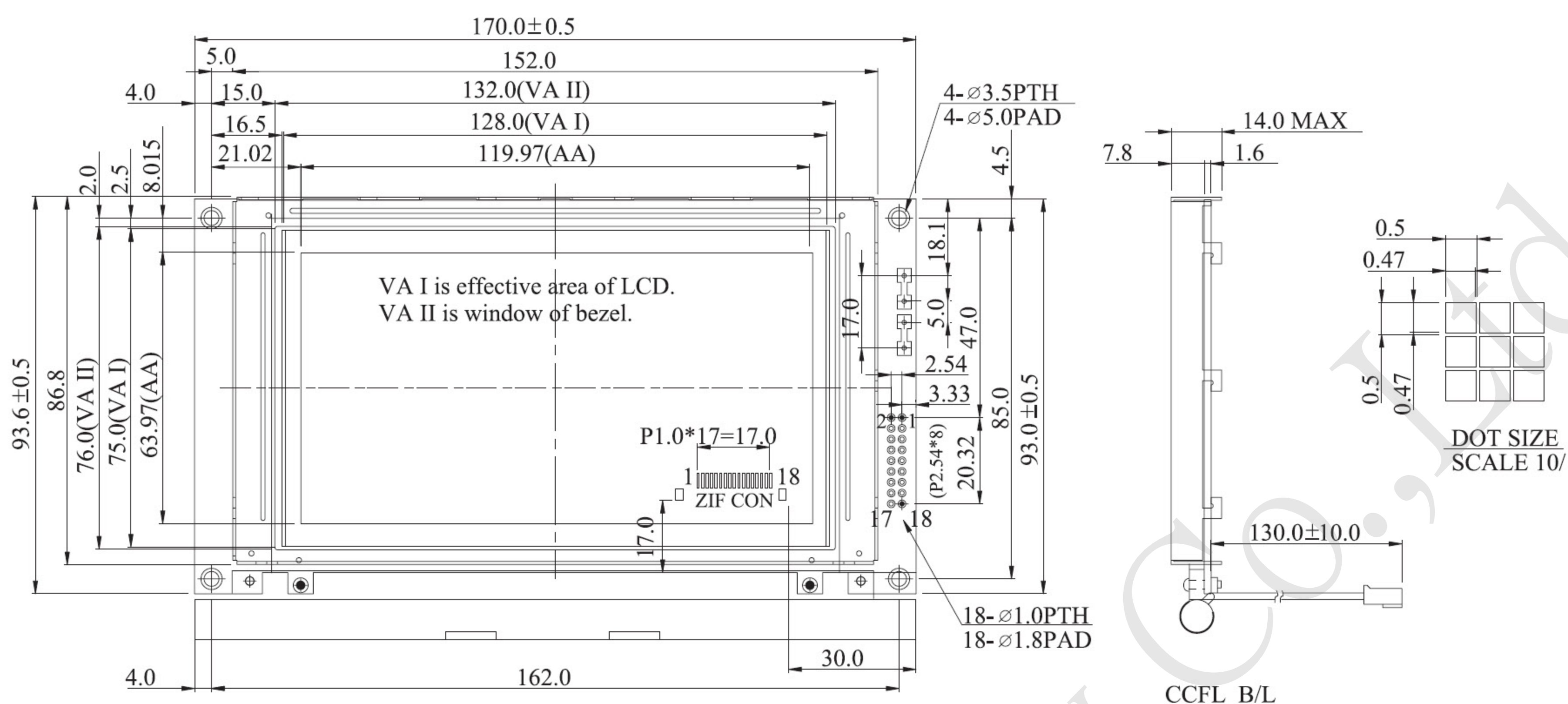


**Dimension drawing**



**Feature**

- 1. +5V power supply
- 2. 1/128duty cycle
- 3. Built-in N.V
- 4. No controller

**Mechanical Data**

Item	Standard Value	Unit
Module Dimension	170.0x93.6	mm
Viewing Area	128.0x75.0	mm
Dot Size	0.43x0.43	mm
Dot pitch	0.45x0.45	mm

**Absolute Maximum Rating**

Item	Symbol	Standard Value			Unit
		min.	typ.	max.	
Power Supply	VDD-VSS	4.75	5.0	5.25	V
Input Voltage	VI	-0.3	---	VDD	V

Note : VSS=0 Volt, VDD=5.0 Volt.

**Electronical Characteristics**

Item	Symbol	Condition	Standard Value			Unit
			min.	typ.	max.	
Input Voltage	VDD	L level	0.7V <sub>DD</sub>	---	V <sub>DD</sub>	V
	VIO	H level	0	---	0.3V <sub>DD</sub>	V
Supply Current	IDD	VDD=+5V	---	55	60	mA
Recommended LC Driving Voltage for Normal Temp. Version module	VDD-V0	-20°C	---	---	---	V
		0°C	20.3	21.4	21.8	
		25°C	12.1	19.1	22.1	
		50°C	17.7	18.9	20.1	
		70°C	9.1	11.6	12.8	
LED Forward Voltage	VF	25°C	---	4.2	4.6	V
LED Forward Current	IF	25°C	---	900	1800	mA
CCFL	VF	25°C	---	250	590	Vm
	IF	25°C	---	---	5.5	mA
EL	IEL	Vel=110VAC;400Hz	---	---	5.0	mA

Pin NO.	Symbol	Function
1	FGND	Frame Ground
2	DB0	H/L Data bus line
3	DB1	H/L Data bus line
4	DB2	H/L Data bus line
5	DB3	H/L Data bus line
6	DISPOFF	Display off when low level
7	FLM	Operating voltage for LCD
8	M	Control signal for AC driving
9	LP	Display data slatch
10	CP	Display data shift
11	Vdd	Power supply for(+5v)
12	Vss	Power supply for(GND)
13	Vee	Negative Voltage output
14	Vo	Contrast Adjustment
15	RV	H/L Data bus line
16	NC	No connection
17	A	Power supply for B/L
18	K	Power supply for B/L