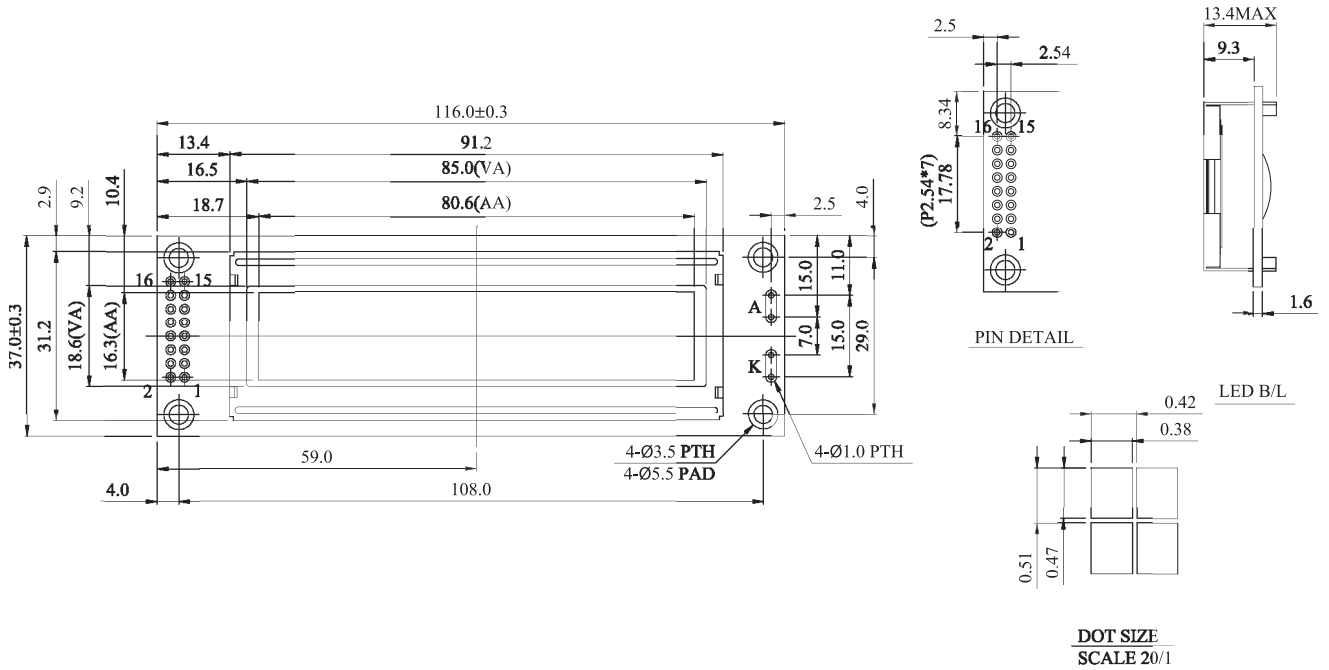


**WG19232C** Graphic 192x32

**Dimension drawing**



Graphic type

**Feature**

- 1. Built in controller (ST7920)
- 2. +5V power supply
- 3. 1/32 duty cycle
- 4. LED can be driver by PIN 15, PIN16

Pin NO.	Symbol	Function
1	Vss	GND
2	Vdd	Power supply for logic
3	Vo	Vo/N.C
4	RS	Register select signal
5	R/W	H/L Read/Write signal
6	E	H→L Enable signal
7	DB0	Data bus line
8	DB1	Data bus line
9	DB2	Data bus line
10	DB3	Data bus line
11	DB4	Data bus line
12	DB5	Data bus line
13	DB6	Data bus line
14	DB7	Data bus line
15	A	Power supply for B/L
16	K	Power supply for B/L

**Mechanical Data**

Item	Standard Value	Unit
Module Dimension	116.0x37.0x13.4	mm
Viewing Area	85x18.6	mm
Dot Size	0.38x0.47	mm
Dot Pitch	0.42x0.51	mm
Mounting hole	108x29	mm

**Absolute Maximum Rating**

Item	Symbol	Standard Value			Unit
		min.	typ.	max.	
Power Supply	VDD-VSS	4.75	5	5.25	V
Input Voltage	VI	0	---	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	---	2	---	mA
Recommended LC Driving Voltage for Normal Temp. Version module	Vo-Vss	-20°C	---	---	5.2	V
		0°C	---	---	4.8	
		25°C	---	4.5	---	
		50°C	4.7	---	---	
		70°C	3.8	---	---	
LED Forward Voltage	VF	25°C	---	---	---	V
LED Forward Current	IF	25°C	---	---	---	mA
CCFL	VF	25°C	---	---	---	Vms
	IF	25°C	---	---	---	mA
EL	IEL	Vel=110vAC;400Hz	---	---	---	mA