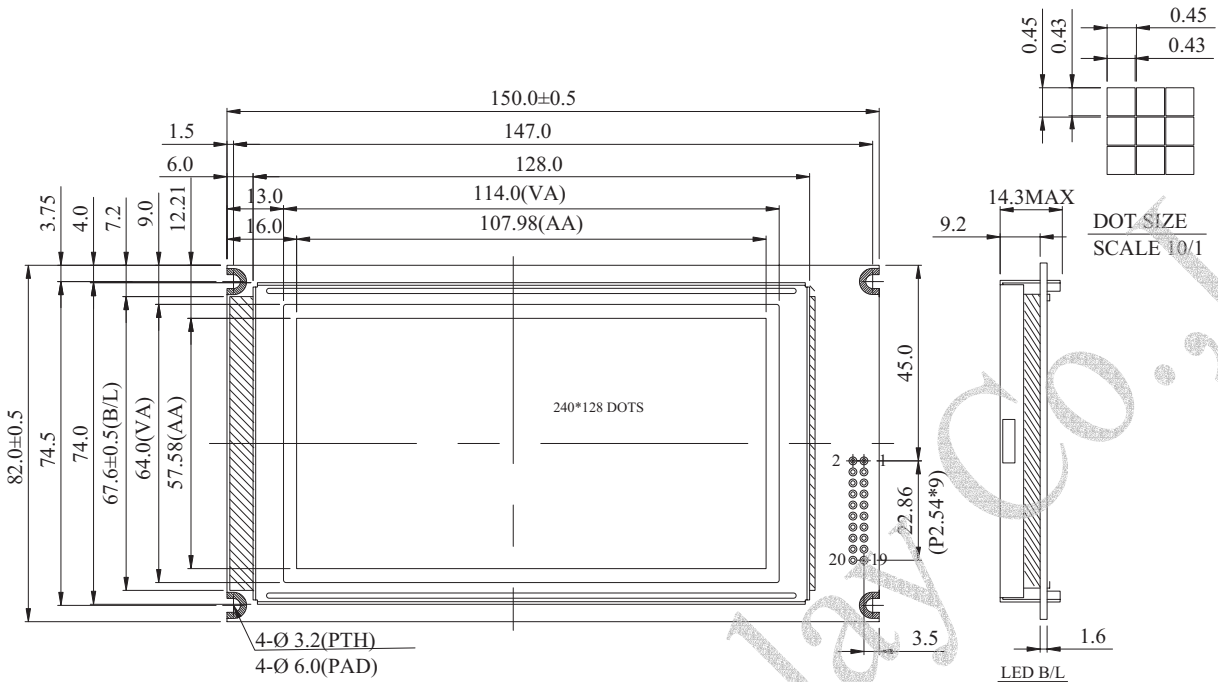




# WG240128L Graphic 240x128 dots

## Dimension drawing



### Feature

1. Built-in controller AVANT IC (T6963C equivalent)
2. Built-in Negative Voltage generator
3. 1/128 duty cycle
4. COB Version

### Mechanical Data

Item	Standard Value	Unit
Module Dimension	150.0x82.2	mm
Viewing Area	114.0x64.0	mm
Dot Size	147.0x74.5	mm
Dot Pitch	0.45x0.45	mm

Graphic type

Pin NO.	Symbol	Function
1	FG	Frame ground
2	VSS	GND
3	VDD	Power supply
4	VO	Power supply for LCD driver
5	/WR	L: Data write
6	/RD	L: Data read
7	CE	Enable signal
8	C/D	WR=L, C/D=H: Command Write C/D=L: Data write RD=L, C/D=H: Status Read C/D=L: Data read
9	VEE	Negative voltage
10	RESET	H: Normal; L: Initialize T6963C
11	DB0	Data Bus line
12	DB1	Data Bus line
13	DB2	Data Bus line
14	DB3	Data Bus line
15	DB4	Data Bus line
16	DB5	Data Bus line
17	DB6	Data Bus line
18	DB7	Data Bus line
19	FS	Pins for selection of font; H: 6 * 8, L: 8 * 8
20	RV	H: Reverse L: Normal

### 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	---	4.75	5.0	5.25	V
Supply Current	IDD	VDD=5V	---	28.2	---	mA
Recommended LC Driving Voltage for Normal Temp. Version module	VDD-VO	-20°C	---	---	20.1	V
		25°C	---	---	18.9	
		70°C	---	---	16.3	
CCFL Starting	VFLS	25°C	---	---	---	Vrms
CCFL Driving Voltage	VFLD	25°C	---	---	---	Vrms
CCFL Driving Current	IFLD	VfQ=450Vrms 30KHz	---	---	---	mAms
LED Forward Voltage	VF	25°C	3.4	3.5	3.6	V
LED Forward Current	IF	25°C	140	180	270	mA
EL Power Supply Current	IEF	Vel=110VAC:400Hz	---	---	5.0	mA