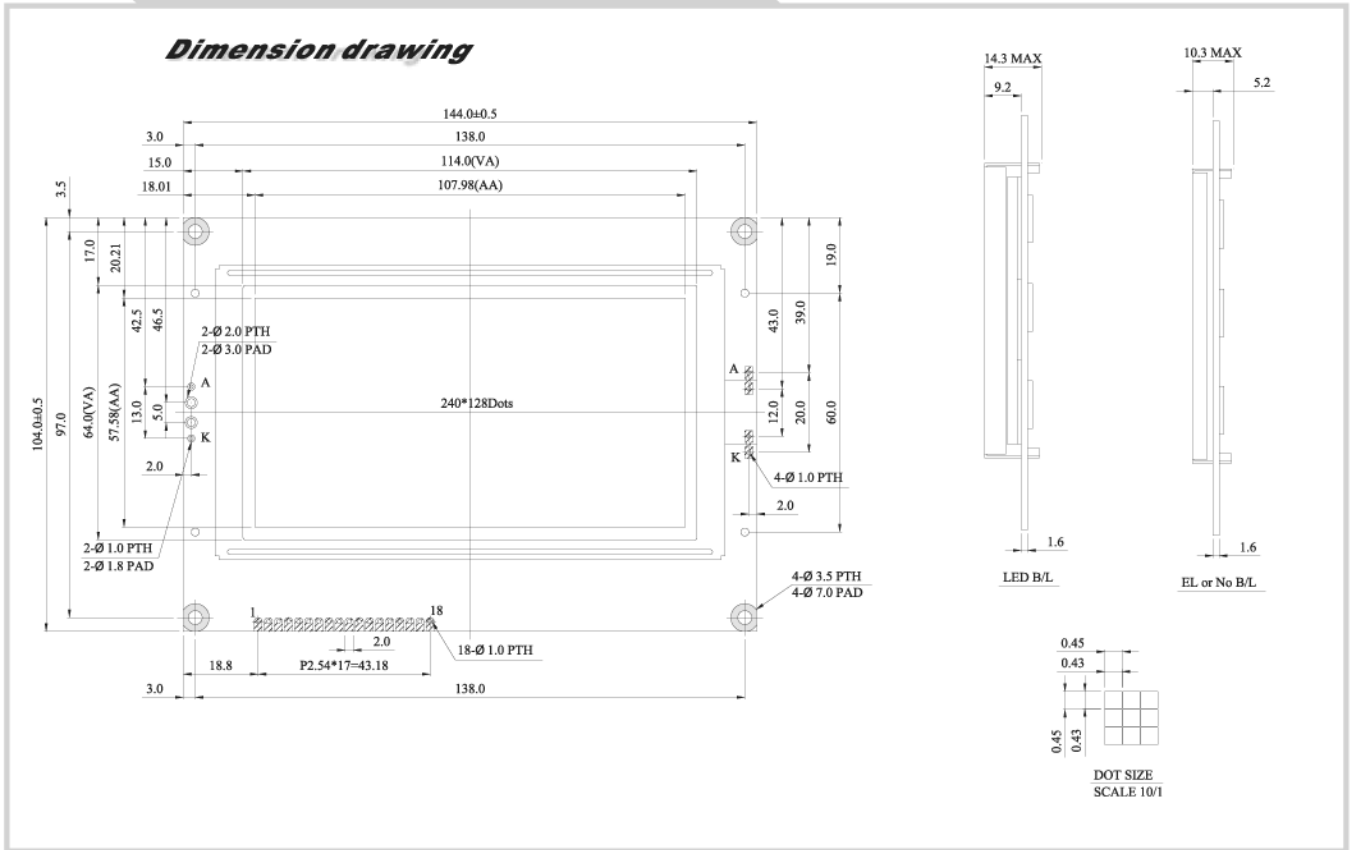


**WG240128E** Graphic 240x128dots



Graphic type

**Feature**

1. Built-in controller TOSHIBA(T6963C or equivalent)
2. +5V power supply
3. 1/128 duty cycle
4. Built-in N.V

**Mechanical Data**

Item	Standard Value	Unit
Module Dimension	144.0x104.0	mm
Viewing Area	114.0x64.0	mm
Dot Size	0.43x0.43	mm
Dot pitch	0.45x0.45	mm

Pin NO.	Symbol	Function
1	Vee/FG	Negative Voltage output/Frame GND
2	VSS	GND
3	VDD	+5V
4	VO	Scan Start-up signal
5	WR	Frame reverse signal (alternate Signal)
6	RD	Data Latch pulse
7	CE	Display Enable signal
8	C/D	Data Shift pulse
9	RST	Display Data signal
10	DB0	Data bus line
11	DB1	Data bus line
12	DB2	Data bus line
13	DB3	Data bus line
14	DB4	Data bus line
15	DB5	Data bus line
16	DB6	Data bus line
17	DB7	Data bus line
18	F S	Pins for selection of font;H:6*8,L:8*8

**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.

**Electrical 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	---	---	0.3V <sub>DD</sub>	V
Supply Current	IDD	VDD=5V	0	55	60	mA
Recommended LC Driving Voltage for Normal Temp. Version module	VDD-V0	0°C	20.3	21.4	22.5	V
		25°C	18.0	19.1	20.2	
		50°C	17.8	18.9	20.0	
LED Forward Voltage	VF	25°C	---	4.2	---	V
LED Forward Current	IF	25°C	---	900	1800	mA
	CCFL	25°C	---	250	590	V <sub>rms</sub>
EL	IF	25°C	---	---	5.5	mA
	---	---	---	---	5.0	mA