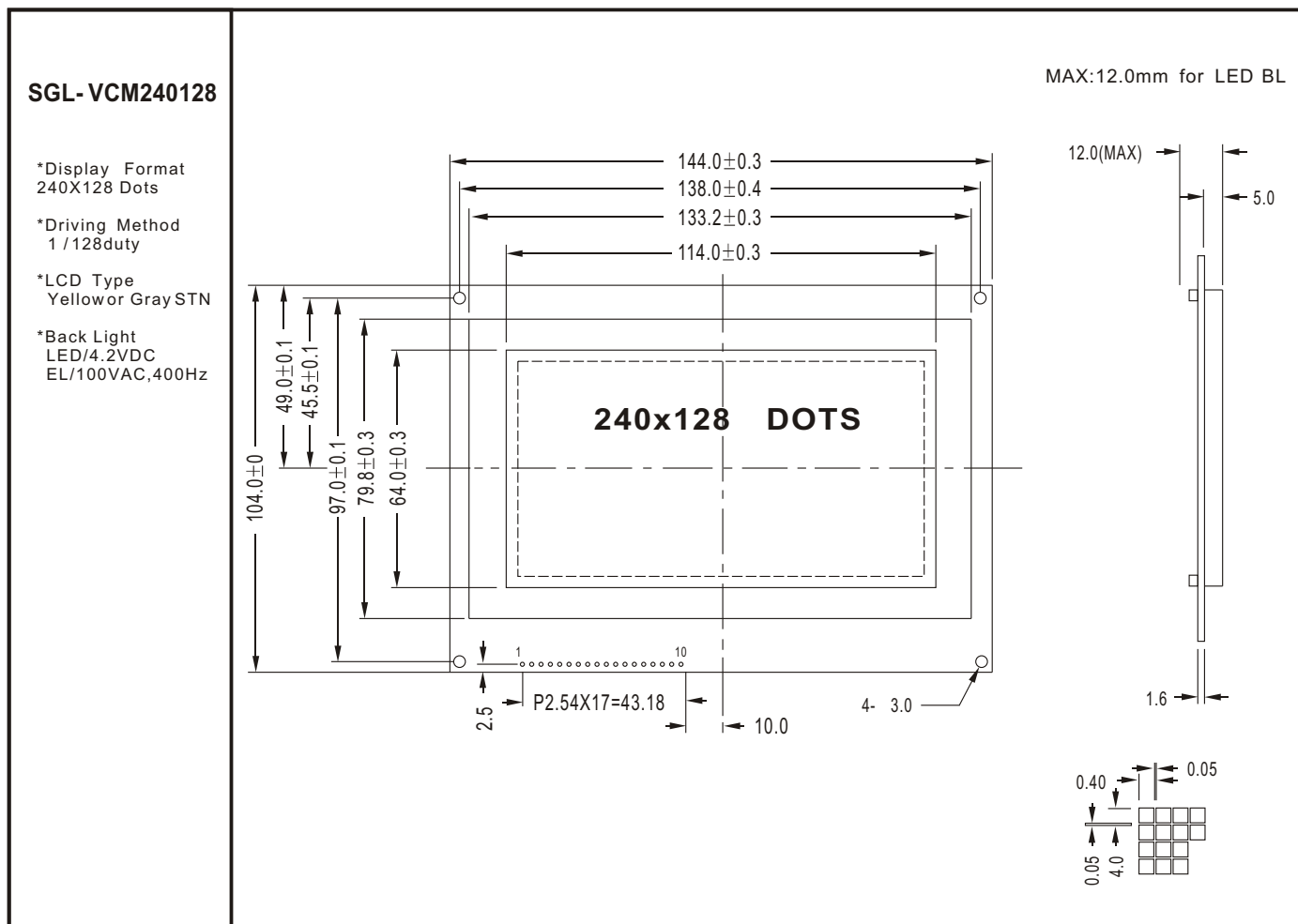




Electro-Optical Characteristics

(V_{SS}=0V)

Item	Symbol	Condition	Min	Typ.	Max.	Unit
Supply Voltage	Logic	V _{DD}	4.75	5.0	5.25	V
	LCD Drive	V _{DD} -V _{EE}	-	-	17.0	
Input Voltage	"H" level	V _{IH}	0.8V _{DD}	-	V _{DD}	V
	"L" level	V _{IL}	0	-	0.2V _{DD}	
Frame Frequency	f FLM	V _{DD} =5V	70	75	80	Hz
Current Consumption	Logic	I _{DD}	V _{DD} =5V V _{EE} =V _{SS} =13.6V f FLM=75Hz	-	13.8	mA
	LCD Drive	I _{EE}	-	1.9	3.5	
LCD Drive Voltage (Recommend Voltage)	V _{DD} -V _{EE}	T _a =-10°C θ=0°, θ=0°	-	-	-	V
		T _a =25°C θ=0°, θ=0°	-	15	-	
		T _a =50°C θ=0°, θ=0°	-	-	-	
Response Time	Rise Time	T _r	T _a =25°C θ=0°, θ=0°	-	150	ms
	Decay Time	T _d	-	200	250	
Viewing Angle	Δθ	θ=0°	40	-	-	deg
		θ=90°	40	-	-	
Contrast Ratio	K	θ=0°, θ=0°	2.0	3.0	-	-

Note 1) Duty=1/128

Note 2) All Dots on State

I/O Connection

Pin No.	Symbol	Function
1	FG	Frame Ground(Connected To Metal Bezel)
2	V _{SS}	Signal Ground
3	V _{DD}	Power Supply for LCD
4	V _{EE}	Power Supply for LCD Drive
5	WR	Data Write(Write Data to the Module at "L")
6	RD	Data Read(Read Data from the Module at "L")
7	CE	Chip Enable for The Module(Active at "L")
8	C/D	WR="L" : C/D="H" : Command, C/D="L" : Data Write WR="H" : C/D="H" : Command, C/D="L" : Data Read
9	RESET	Controller Reset(Module Reset)
10~17	D0~D7	Data Line
18	FS	Font Select: Open or Connect to V _{DD} : 6×8 Dots Font Connect to V _{SS} : 8×8 Dots Font