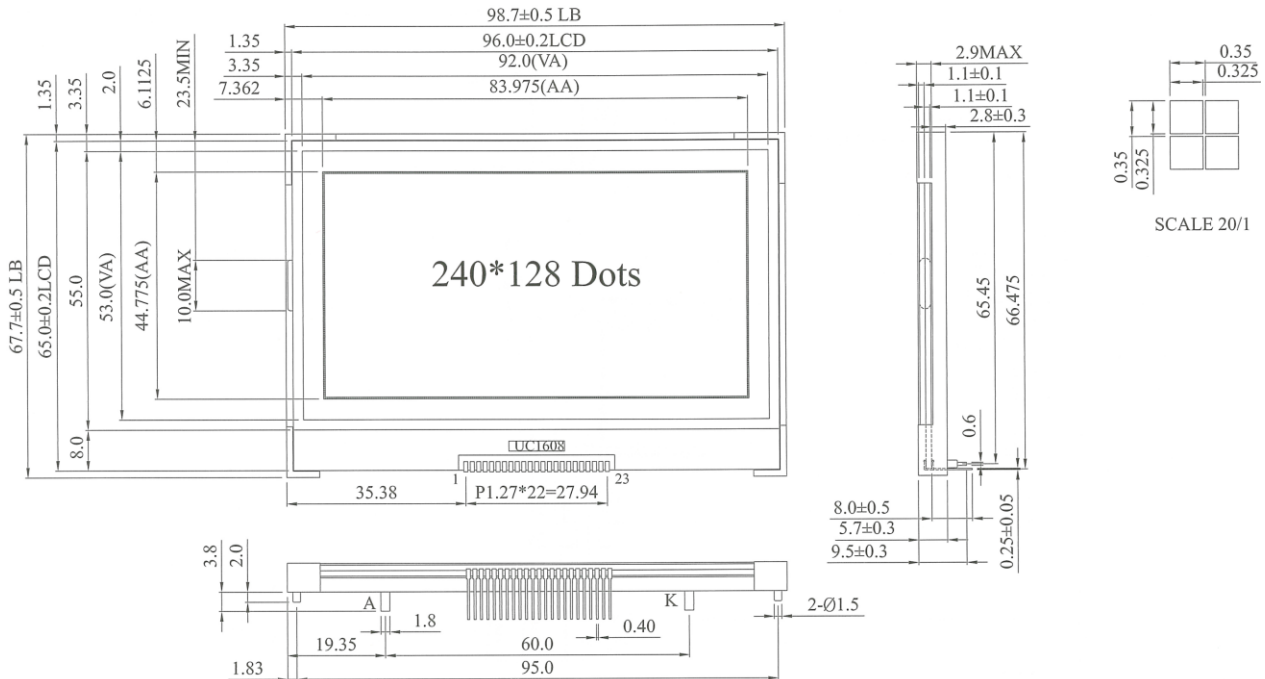


# MSO240128A

Graphic COG 240x128

# GMS.

■ ■ ■ DISPLAY SYSTEMS



Feature		
1. 240x128 dots includes cursor		
2. Built-in controller (UC1608)		
3. +3V Power supply		
4. 1/28 duty cycle		
Pin	Symbol	Description
1	VB1-	LCD Bias Voltages. These voltages are always generated internally. Connect capacitors of CB value between VBX+ to VBX-.
2	VB1+	
3	VB0-	
4	VB0+	
5	VLCD	Main LCD Power supply
6	VBIAS	Reference voltages to generate the actual seg driving voltages
7	Vss	Ground
8	Vdd	Supply voltage for logic
9	D7	Bi-directional bus for both serial and parallel host interfaces. Connect unused pins to Vss in serial mode. When PS=L, D0: SCK (serial clock), D2: SDI (input data), D4: SDO (output data), D1, D3, D5-D7: High impedance, connect to Vss. When PS=H, D7: 0 is under control of WR(t0) and CS (t0)
10	D6	
11	D5	
12	D4	
13	D3	
14	D2	
15	D1	
16	D0	
17	WR1	WR(t0) controls the read/write operation of the host interface. In parallel mode, WR (t0) meaning depends on whether the interface is in the 6800 mode or the 8080 mode. In serial interface modes, these two pins are not used. Connect to Vss.
18	WR0	
19	CD	Select control data or Display data for read/write operation. When in serial 9-bit mode, this pin is not used, connect to Vss. L: Control data, H: Display data
20	RST	When RST=L, all control registers are reinitialized by their default states and/or by their pin configurations if applicable. When RST is not used, connect the pin to Vdd1.
21	CS	Chip select. Chip selected when CE=H
22	BM0	Bus modes
23	BM1	Serial: LL: SPI 2-bit serial mode. Parallel modes: HL: 8080 HH: 6800

Mechanical Data					
Item	Standard Value	Unit			
Module Dimension	98.7 x 67.7	mm			
Viewing Area	92.0 x 53.0	mm			
Dot Size	0.325 x 0.325	mm			
Dot Pitch	0.35 x 0.35	mm			
Absolute Maximum Rating					
Item	Symbol	Standard Value			Unit
		min	typ	max	
Power Supply	Vdd - Vss	2.7	3.0	3.3	V
Input Voltage	Vi	0	---	Vdd	V

Note: Vss= 0 V, Vdd= 3.0 V

Electronical Characteristics						
Item	Symbol	Condition	Standard Value			Unit
			min	typ	max	
Input Voltage	Vdd	---	2.7	3.0	3.3	V
Supply Current	Idd	Vdd=3.0V	---	1.1	---	mA
Recommended LC Driving Voltage for normal Temperature Version module	Vo-Vss	-20°C	---	---	---	V
		25°C	---	15.5	---	
		70°C	---	---	---	

See Specification for Backlight information.

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