

MCCOG240128A6W-FPTLW	240 x 128	N/A	LCD Module
Specification			
Version: 1		Date: 31/10/2016	
Revision			

Display Features			
Resolution	240 x 128		
Appearance	Black on White		
Logic Voltage	5V		
Interface	Parallel / SPI		
Font Set	N/A		
Display Mode	Transflective		
LC Type	FSTN		
Module Size	98.70 x 67.70 x 9.50		
Operating Temperature	-20°C ~ +70°C		
Construction	COB		
LED Backlight	White	Box Quantity	Weight / Display
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* - For full design functionality, please use this specification in conjunction with the UC1608 specification. (Provided Separately)

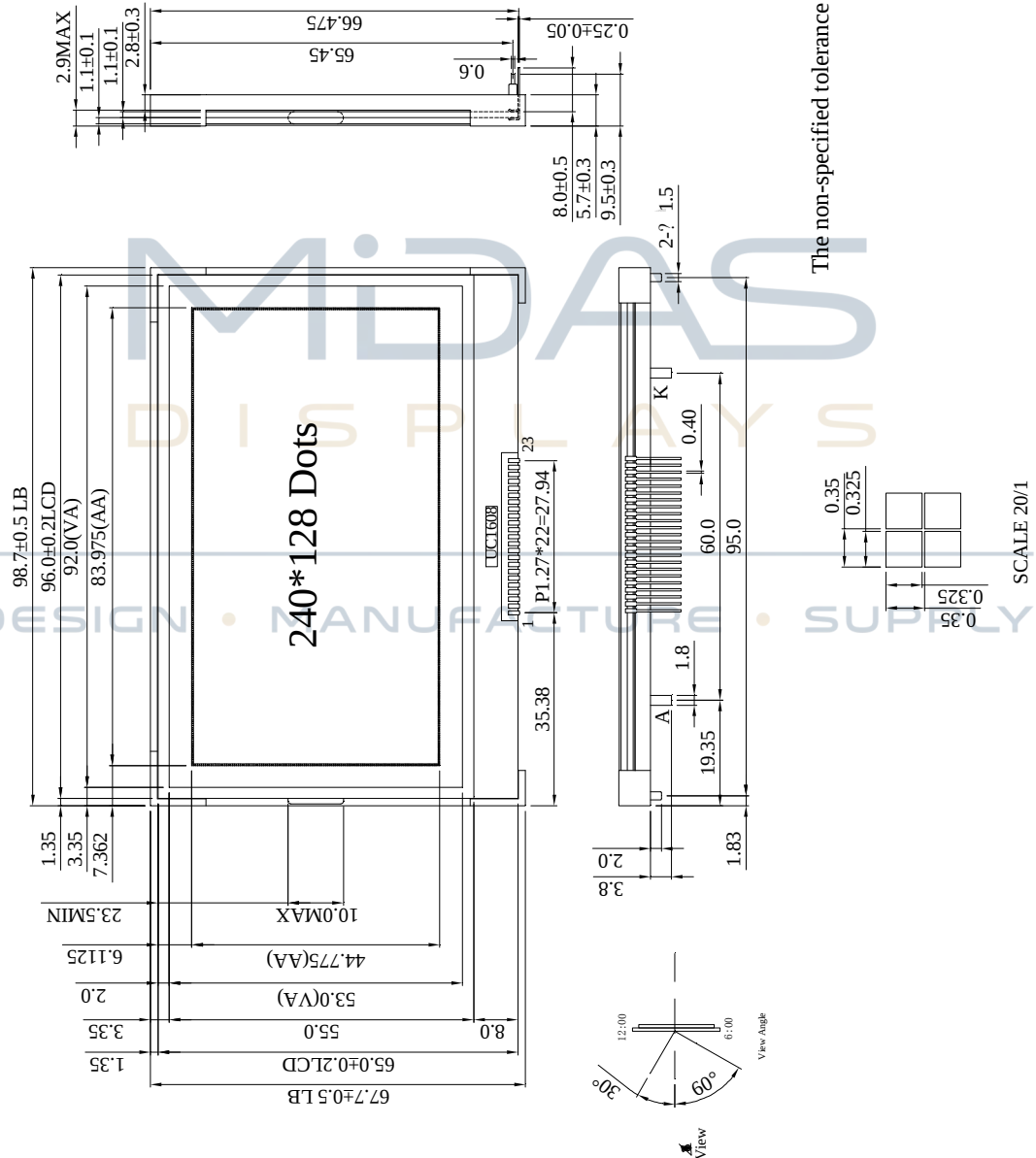
Display Accessories	
Part Number	Description

Optional Variants	
Appearances	Voltage

Mechanical Specifications

Module Size	98.70 x 67.70 x 9.50 (With Backlight)				W x H x D mm
Viewing Area	92.00 x 53.00	W x H mm	Hole-to-Hole	--	W x H mm
Dot Size	0.325 x 0.325	W x H mm	Dot Pitch	0.35 x 0.35	W x H mm

PIN NO.	SYMBOL
1	VB1-
2	VB1+
3	VB0-
4	VB0+
5	VLCD
6	VBIAS
7	VSS
8	VDD
9	D7
10	D6
11	D5
12	D4
13	D3
14	D2
15	D1
16	D0
17	WR1
18	WR0
19	CD
20	RST
21	CS
22	BM0
23	BM1



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Pin layout			
Pin	Symbol	Description	Remarks
1	VB1-	LCD Bias Voltages. Connect capacitors of CB value between VBX+~VBX+	
2	VB1+		
3	VB0-		
4	VB0+		
5	VLCD	LCD Power Supply	
6	VBIAS	Reference voltages to generate 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. Unused pins connect to VSS in serial modes. PS1=L, D0: SCK, D2: SDI, D4: SDO, D1 D3 D5~7: High impedance connect to VSS. PS1=H D7~0 under control of WR 1~0 and CS	
10	D6		
11	D5		
12	D4		
13	D3		
14	D2		
15	D1		
16	D0		
17	WR1	Controls read/write operation of the host interface. Parallel= Meaning of WR1~0 dependant on 6800 or 8080 mode. Serial= NC, connect to VSS	
18	WR0		
19	CD	Select control or display data for read/write.	
20	RST	RST=L All control registers are reinitialised by their default sates.	
21	CS	Chip Select.	
22	BM0	Bus Modes: Serial=LL Parallel=HL: 8080 HH:6800	
23	BM1		

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Absolute Maximums Ratings					
Item	Symbol	Minimum	Typical	Maximum	Unit
Power Supply Voltage	VDD-VSS	-0.3	---	4.0	V
Power Supply Voltage	VLCD	-0.3	---	18.0	V
Input Voltage	VIN/VOUT	-0.3	---	VDD+0.3	V
Operating Temperature	T _{OP}	-20°C	---	70°C	°C
Storage temperature	T _{ST}	-30°C	---	80°C	°C

Electronic Characteristics						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
---	---	---	---	---	---	---
---	---	---	---	---	---	---
---	---	---	---	---	---	---
---	---	---	---	---	---	V
Supply Voltage Logic	V _{DD} ~ V _{SS}	---	2.70	3.00	3.30	V
Supply Voltage LCD	V _{DD} ~ V ₀	Ta=25°C	---	15.50	---	V
Supply Current	I _{DD}	V _{DD} =3.3V	---	1.10	---	mA

LCD Characteristics						
For STN/FSTN LCD Panel Types						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Viewing Angle	Φ2 – Φ1	CR ≥ 2	30	---	60	ψ=180°
	Θ	CR ≥ 2	-45	---	45	
Contrast Ratio	CR	---	---	5	---	---
Response Time (Rise)	TR	---	---	200	300	ms
Response Time (Fall)	TF	---	---	250	300	ms

LED Characteristics						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Supply Current	I _{LED}	V=3.5V	86.40	96	1200	mA
Supply Voltage	V	---	3.4	3.5	3.6	V
Reverse Voltage	V _R	---	---	---	5	V
Wave Length	X	LED=96mA	0.26	0.28	0.30	---
	Y		0.28	0.30	0.32	---
Luminance (without LCD)	IV	LED=96mA	480	600	---	Cd/m ²
LED Life Time	---	I _{LED} =96mA	---	50K	---	Hours

Attention: It is constant current, not constant voltage, which should be applied when driving the LED backlight, please ensure you adhere to this rule.

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