


MC20805A6W-BNMLWI-V2	2 x 8	5mm Character Height	LCD Module
<b>Specification</b>			
Version: 1		Date: 29/09/2016	
<b>Revision</b>			

Display Features					
Character Count	2 x 8				
Appearance	White on Blue				
Logic Voltage	5V				
Interface	I2C				
Font Set	English / Japanese				
Display Mode	Transmissive				
Character Height	5.56mm				
LC Type	BSTN				
Module Size	58.00 x 32.00 x 13.20 mm				
Operating Temperature	-20°C ~ +70°C				
Construction	COB			Box Quantity	Weight / Display
LED Backlight	White			---	---

\* - For full design functionality, please use this specification in conjunction with the RW1063 specification. (Provided Separately)

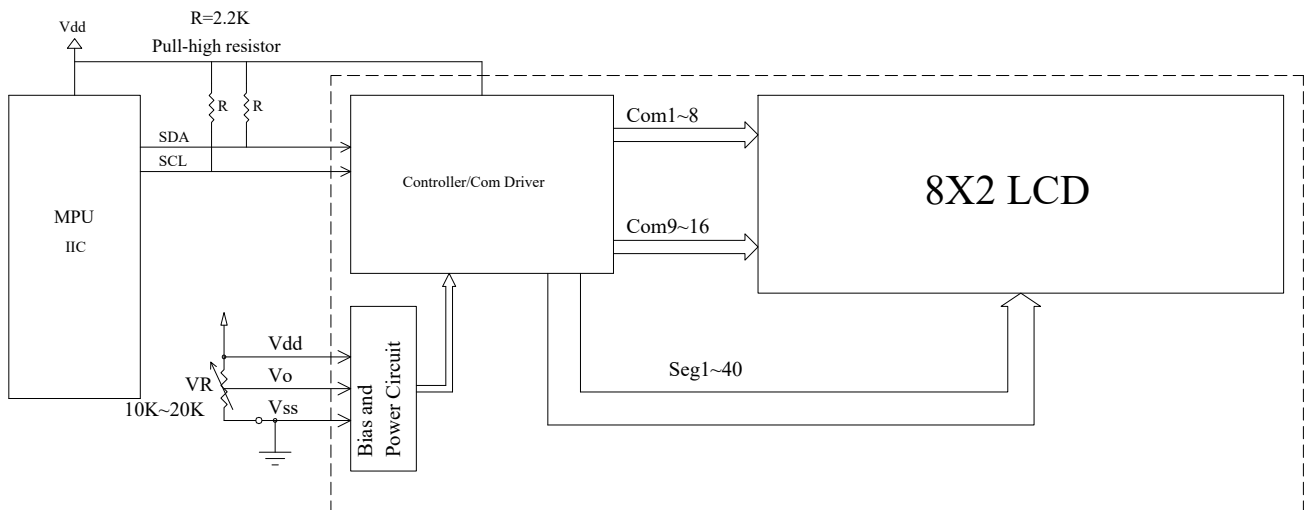
Display Accessories	
Part Number	Description
MCCMDB-16DIL	LCD Interconnect board, can be driven from either a PC or a single Board computer with a USB output.
MCCBL1A16DLIP-16DILS-150	16 Way, Dual in-line to Dual In-line connector Cable.

Optional Variants		
Fonts	Appearances	Voltage
	Black on Yellow/Green	



# Pin Layout

PI	SYMBOL	DESCRIPTION	REMARKS
1	Vss	GND	
2	Vdd	Power supply for LCM	
3	V0	Operating Voltage for LCD	
4	NC	No Connection	
5	NC	No Connection	
6	NC	No Connection	
7	SA0	I2C Interface, SA1 and SA0 slave	
8	SA1	address. Connect to VDD/VSS	
9	NC	No Connection	
10	NC	No Connection	
11	NC	No Connection	
12	CSB	Chip Select Low=True High=False	
13	SDA	Serial Clock Input	
14	SCL	Serial Data Input	
15	A	Power Supply for BKL	
16	K	Power Supply for BKL	



External contrast adjustment.

Character located	1	2	3	4	5	6	7	8
DDRAM address	00	01	02	03	04	05	06	07
DDRAM address	40	41	42	43	44	45	46	47

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# Font Map

Upper 4bit Lower 4bit	LLLL	LLLH	LLHL	LLHH	LHLL	LHLH	LHHL	LHHH	HLLL	HLLH	HLHL	HLHH	HHLL	HHLH	HHHL	HHHH
LLLL	CG RAM (1)															
LLLH	(2)															
LLHL	(3)															
LLHH	(4)															
LHLL	(5)															
LHLH	(6)															
LHHL	(7)															
LHHH	(8)															
HLLL	(1)															
HLLH	(2)															
HLHL	(3)															
HLHH	(4)															
HHLL	(5)															
HHLH	(6)															
HHHL	(7)															
HHHH	(8)															

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Absolute Maximum Ratings						
Item	Symbol	Condition	Min	Typ	Max	Unit
Power Supply ( LOGIC)	Vdd	25 °C	-0.3	---	5.5	V
Power Supply (LCD)	V0	25 °C	Vss -0.3	---	Vss +7.0	V
Input Voltage	Vin	25 °C	-0.3	---	Vdd +0.3	V
Operating Temperature	Vopr	---	-20	---	70	°C
Storage Temperature	Vstg	---	-30	---	80	°C

Electronic Characteristics						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Input Voltage High	V <sub>IH</sub>	---	2.50	---	V <sub>DD</sub>	V
Input Voltage Low	V <sub>IL</sub>	---	-0.30	---	0.55	V
Output Voltage High	V <sub>OH</sub>	---	3.90	---	Vdd	V
Output Voltage Low	V <sub>OL</sub>	---	---	---	0.40	V
Supply Voltage Logic	V <sub>DD</sub> - V <sub>SS</sub>	---	4.50	5.00	5.50	V
Supply Voltage LCD	V <sub>DD</sub> - V <sub>0</sub>	Ta=25°C	4.20	4.35	4.50	V
Supply Current	I <sub>DD</sub>	V <sub>DD</sub> =5.0V	1.00	1.20	1.50	mA

LCD Characteristics						
For STN/FSTN LCD Panel Types						
Item	Symbol	Condition	Min	Typ	Max	Unit
Viewing Angle	$\Phi 2 - \Phi 1$	CR $\geq$ 2	40°	---	20	$\psi=180^\circ$
	$\Theta$		60°			
Contrast Ratio	K	---	---	3	---	---
Response Time (Rise)	TR	---	---	150	200	ms
Response Time (Fall)	TF	---	---	150	200	ms

LED Characteristics						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Supply Current	I <sub>LED</sub>	V=3.5V	---	16	20	mA
Supply Voltage	V	---	3.40	3.50	3.60	V
Reverse Voltage	VR	---	---	---	5	V
Luminance (Without LCD)	IV	I <sub>LED</sub> =16mA	400	480	---	Cd/m <sup>2</sup>
---	---	---	---	---	---	---
LED Life Time	---	I <sub>LED</sub> =16mA	---	50K	---	Hour

**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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