Sauls Wharf House
Crittens Road
Great Yarmouth
Norfolk
NR31 0AG

Telephone +44 (0)1493 602602
Email:sales@midasdisplays.com
Email:tech@midasdisplays.com
www.midasdisplays.com

MC20805A6W-SPTLYS	2 x 8	5mm Character Height	LCD Module
Specification			
Version: 1		Date: 29/09/2016	
Revision			

Display Features			
Character Count	2 x 8		
Appearance	Black on Yellow/Green		
Logic Voltage	5V		
Interface	SPI		
Font Set	English / Japanese		
Display Mode	Transflective		
Character Height	5.56mm		
LC Type	STN		
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	Yellow/Green	---	---

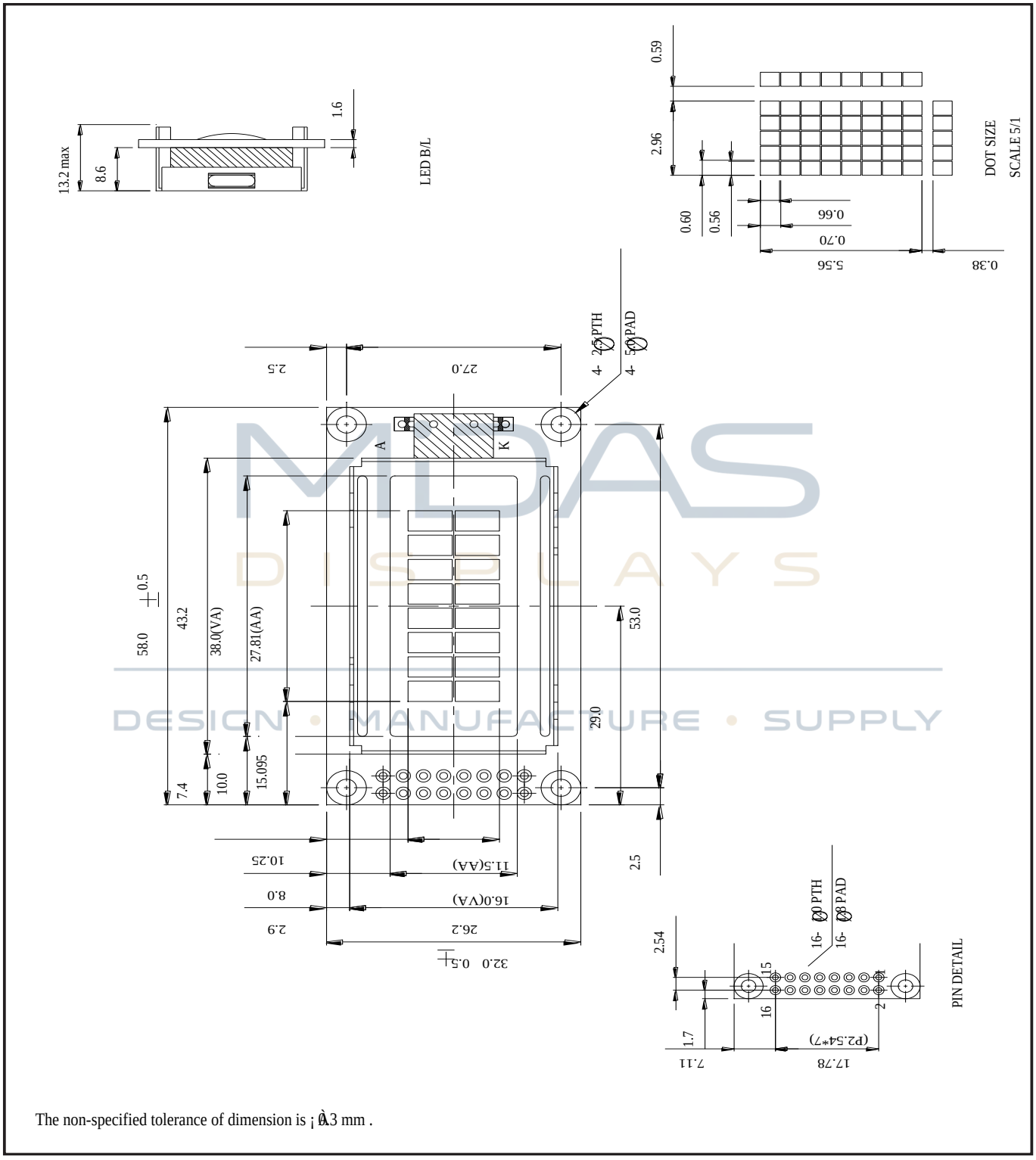
RoHS compliant

* - 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**
	White on Blue	

Mechanical Specifications					
Module Size	58.00 x 32.00 x 13.20 (With Backlight)				W x H x D mm
Viewing Area	38.00 x 16.00	W x H mm	Hole-to-Hole	53.00 x 26.20	W x H mm
Character Size	2.96 x 5.56	W x H mm	Character Pitch	3.55 x 5.94	W x H mm
Dot Size	0.56 x 0.66	W x H mm	Dot Pitch	0.60 x 0.70	W x H mm



The non-specified tolerance of dimension is ¡À0.3 mm .

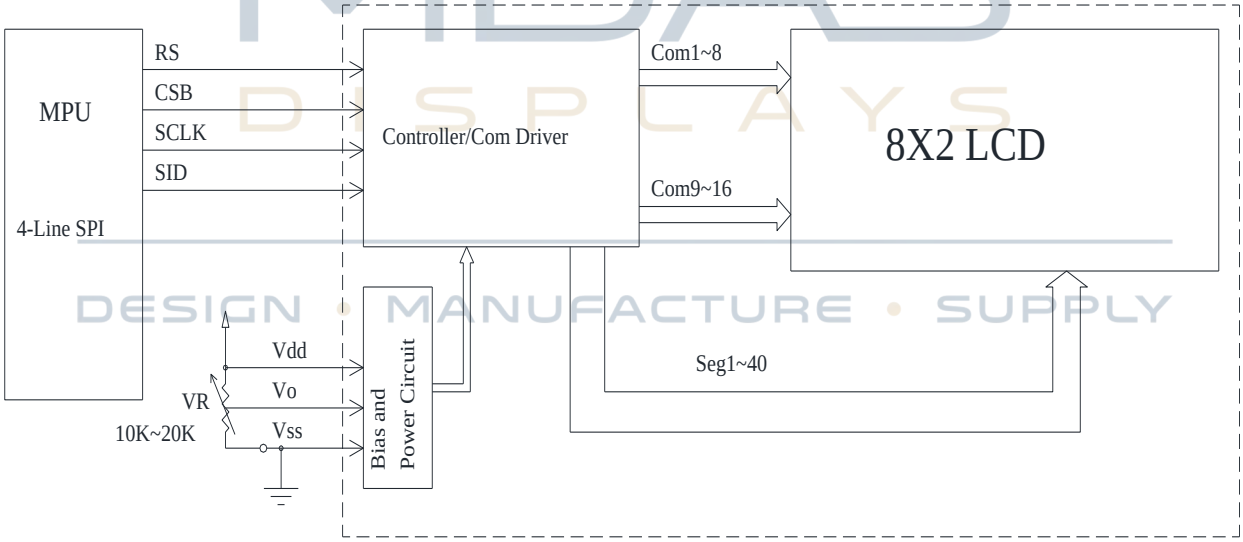
MIDAS DISPLAYS
DESIGN • MANUFACTURE • SUPPLY

MC20805A6W-SPTLYS	2 x 8	5mm Character Height	LCD Module
Specification			
Version: 1		Date: 29/09/2016	
Revision			

Pin Layout

PI	SYMBOL	DESCRIPTION	REMARKS
1	Vss	GND	
2	Vdd	Power supply for LCM	
3	V0	Operating Voltage for LCD	
4	RS	Register Select Input	
5	NC	No Connection	
6	NC	No Connection	
7	NC	No Connection	
8	NC	No Connection	
9	NC	No Connection	
10	NC	No Connection	
11	NC	No Connection	
12	CSB	Chip Select Low=True High=False	
13	SCLK	Serial Clock Input	
14	SID	Serial Data Input	
15	A	LED+	
16	K	LED-	

MIDAS DISPLAYS
DESIGN • MANUFACTURE • SUPPLY



External contrast adjustment.

Character located 1 2 3 4 5 6 7 8

DDRAM address

00	01	02	03	04	05	06	07
40	41	42	43	44	45	46	47

DDRAM address

MC20805A6W-SPTLYS	2 x 8	5mm Character Height	LCD Module
Specification			
Version: 1		Date: 29/09/2016	
Revision			

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)															

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_{IH}	---	2.50	---	V_{DD}	V
Input Voltage Low	V_{IL}	---	-0.30	---	0.55	V
Output Voltage High	V_{OH}	---	3.90	---	Vdd	V
Output Voltage Low	V_{OL}	---	---	---	0.40	V
Supply Voltage Logic	V_{DD} ~ V_{SS}	---	4.50	5.00	5.50	V
Supply Voltage LCD	V_{DD} ~ V_0	Ta=25°C	4.20	4.35	4.50	V
Supply Current	I_{DD}	V_{DD}=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	Φ2 – Φ1	CR≧2	40°	---	20	ψ=180°
	Θ		60°			
Contrast Ratio	K	---	---	3	---	---
Response Time (Rise)	TR	---	---	150	200	ms
Response Time (Fall)	TF	---	---	150	200	ms

MIDAS DISPLAYS
DESIGN • MANUFACTURE • SUPPLY

LED Characteristics

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Supply Current	ILED	V=4.2V	63	70	84	mA
Supply Voltage	V	---	4.0	4.20	4.50	V
Reverse Voltage	VR	---	---	---	8	V
Luminance (Without LCD)	IV	ILED=70mA	165	190	---	Cd/m^2
Wave Length	λP	ILED=70mA	568	572	575	nm
LED Life Time	---	ILED=70mA	---	100K	---	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.