


MC122032B6W-BNMLW-V2	122 x 32		LCD Module
Specification			
Version: 1		Date: 31/10/2016	
Revision			

Display Features			
Resolution	122 x 32		
Appearance	White on Blue		
Logic Voltage	5V		
Interface	Parallel		
Font Set	N/A		
Display Mode	Transmissive		
LC Type	BSTN		
Module Size	84.00 x 44.00 x 15.00		
Operating Temperature	-20°C ~ +70°C		
Construction	COB	Box Quantity	Weight / Display
LED Backlight	White	45 pcs	28.88 grams



RoHS
compliant

* - For full design functionality, please use this specification in conjunction with the SBN1661G_M02 specification.(Provided Separately)

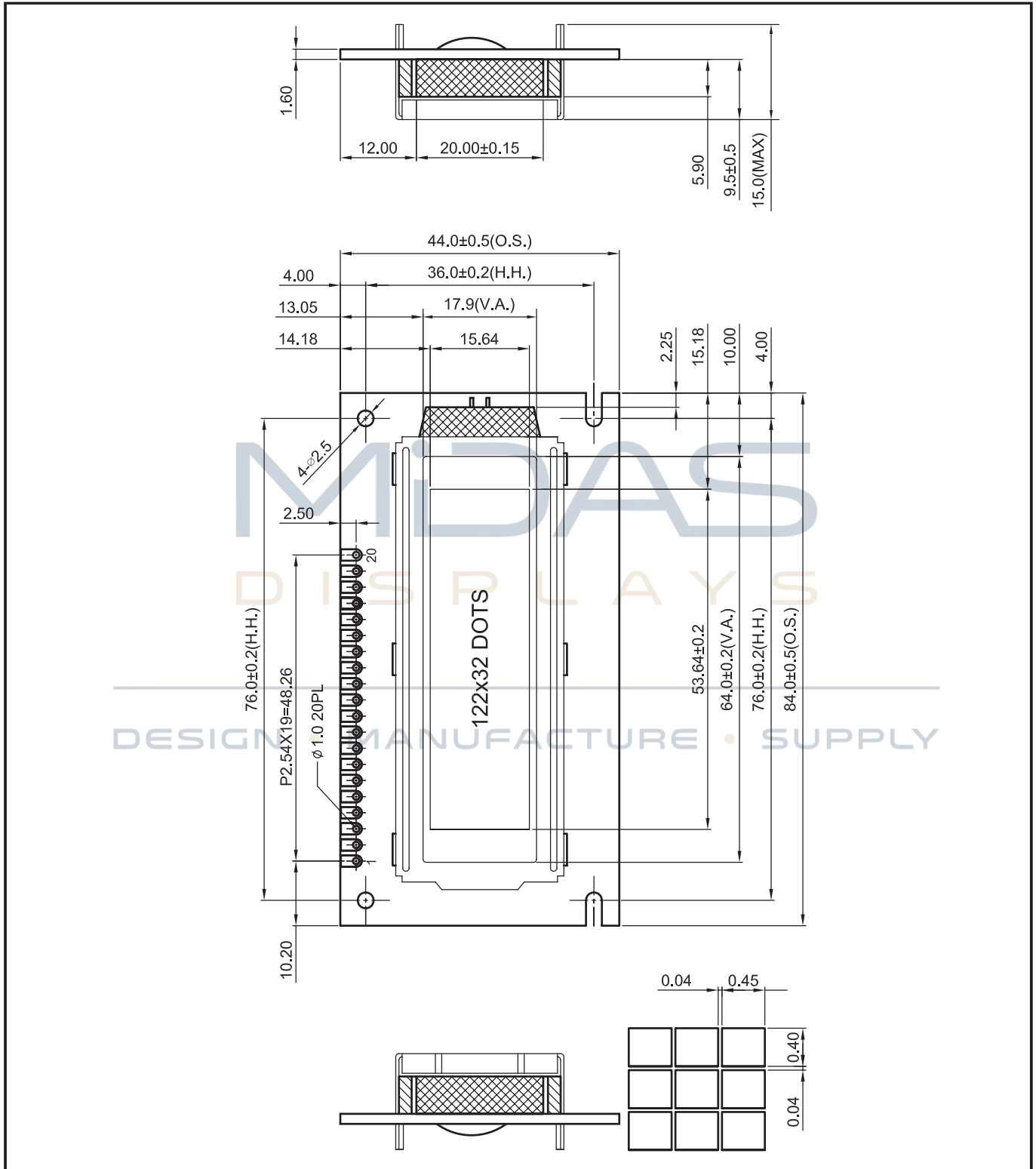
Display Accessories	
Part Number	Description
VBWFD1	USB PIC18F2550 microcontroller board to 20-way Single in-line COB Graphic LCD.

Optional Variants	
Appearances	Voltage
Black on Yellow/Green Black on White	



Mechanical Specifications

Module Size	84.00 x 44.00 x 15.00 (With Backlight)				W x H x D mm
Viewing Area	64.00 x 17.90	W x H mm	Hole-to-Hole	76.00 x 36.00	W x H mm
Dot Size	0.40 x 0.45	W x H mm	Dot Pitch	0.04 x 0.04	W x H mm

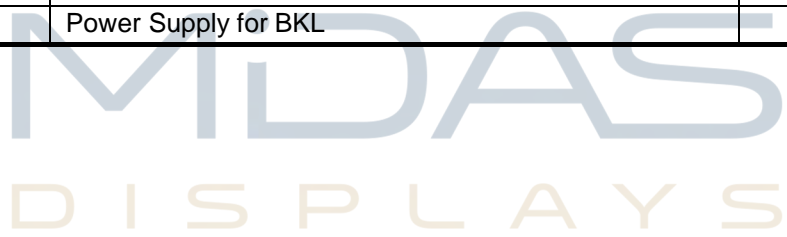


MC122032B6W-BNMLW-V2	122 x 32	Specification	LCD Module
Version: 1	Date: 31/10/2016		
Revision			

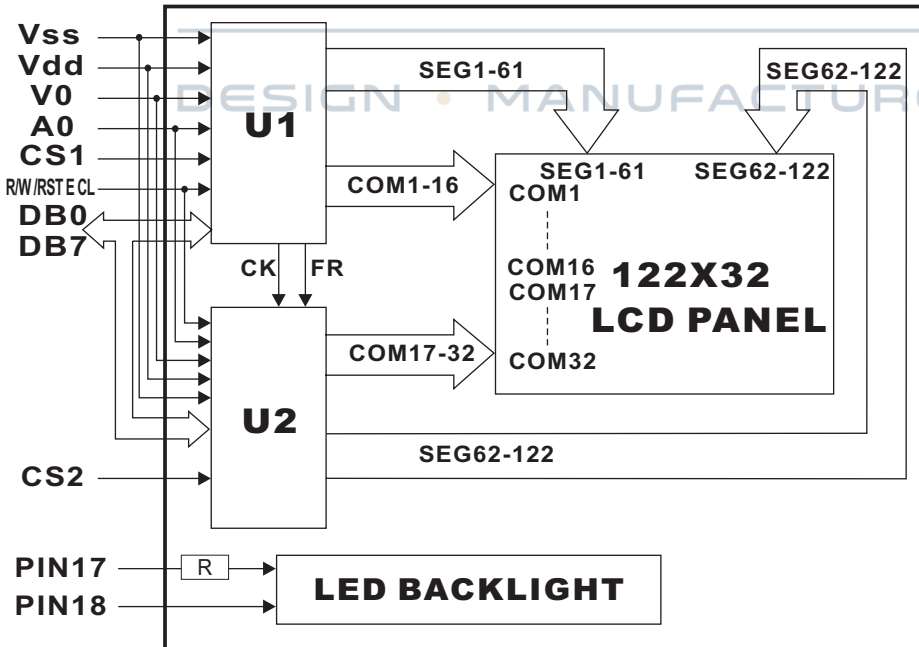


Pin Layout

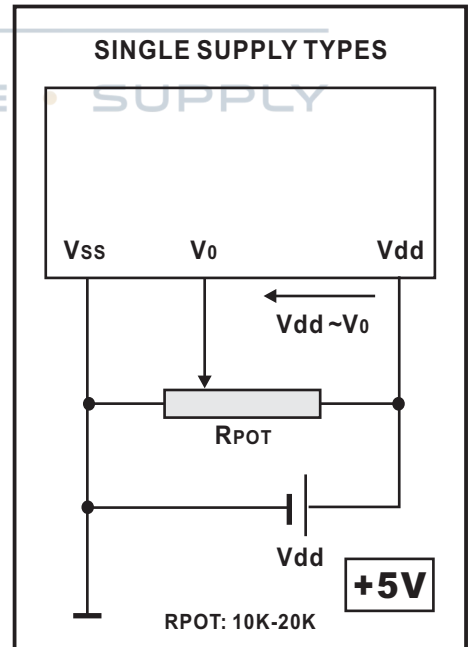
Dj b	G ra Vc`	8 YgW]dljcb	FYa Uf_g
1	Vss	GND	
2	Vdd	Power Supply for LCM	5.0V
3	V0	Contrast Adjust	
4	A0	H/L H: Data; L: Instruction Code	
5	CS1	Chip 1 Enable Signal	
6	CS2	Chip 2 Enable Signal	
7	CL	Clock Input (2 KHz)	
8	E	Enable Signal	
9	R/W	Data Read / Write	
10	DB0	Data bus Line	
11	DB1	Data bus Line	
12	DB2	Data bus Line	
13	DB3	Data bus Line	
14	DB4	Data bus Line	
15	DB5	Data bus Line	
16	DB6	Data bus Line	
17	DB7	Data bus Line	
18	RST	Reset Signal	
19	LED+	Power Supply for BKL	5.0V
20	LED-	Power Supply for BKL	



Block Diagram



Power Supply Diagram



MC122032B6W-BNMLW-V2	122 x 32	Specification	LCD Module
Version: 1	Revision		Date: 31/10/2016



Absolute Maximum Ratings						
Item	Symbol	Condition	Min	Typ	Max	Unit
Power Supply (LOGIC)	Vdd	25°C	-0.3	---	7.0	V
Power Supply (LCD)	V0	25°C	Vdd -19.00	---	Vdd +0.3	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	Min	Typ	Max	Unit
Input Voltage	Vlcm = Vdd	---	---	5.0	---	V
Supply Current	Idd	Vdd=5V	---	1.50	---	mA
Driving Voltage for LCD Panel	Vlcd = (Vdd - V0)	-20°C	4.25	---	4.70	V
		0°C	4.20	---	4.55	
		25°C	4.20	---	4.50	
		50°C	4.10	---	4.45	
		70°C	3.90	---	4.40	

LCD Characteristics						
For STN/FSTN LCD Panel Types						
Item	Symbol	Condition	Min	Typ	Max	Unit
Viewing Angle	$\Phi 2 - \Phi 1$	K = 4	40°	---	---	Deg
	Θ		60°			
Contrast Ratio	K	---	---	10	---	---
Response Time (Rise)	TR	---	---	150	250	ms
Response Time (Fall)	TF	---	---	150	250	ms

LED Characteristics						
Item	Symbol	Condition	Min	Typ	Max	Unit
LED Forward Voltage	Vf	25°C If=15mA	2.8	---	3.1	V
LED Forward Current*	If	25°C	---	15	---	mA
LED Reverse Current	Ir	25°C Vr=5.0V	---	---	10	μA
LED Colour Range	X Coordinate	25°C If=15mA	0.26	---	0.30	---
	Y Coordinate		0.27	---	0.31	---
LED Brightness (Without LCD)	Lv	25°C If=15mA	---	240	---	cd/m ²
LED Brightness Uniformity	Lvmin/Lvmax	25°C If=15mA	70	---	---	Ratio
LED Life Time	---	25°C If=15mA	9K	---	---	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.

MC122032B6W-BNMLW-V2	122 x 32	LCD Module
Specification		
Version: 1	Date: 31/10/2016	
Revision		
		Page 4 of 4

