


MCOB050016AV-BP	50 x 16	Blue	OLED Module
<b>Specification</b>			
Version: 1	Date: 31/10/2016		
<b>Revision</b>			

Display Features					
Resolution	50 x 16				
Appearance	Blue on Black				
Logic Voltage	5V				
Interface	Parallel				
Module Size	58.00 x 32.00 x 10.00				
Operating Temperature	-40°C ~ +80°C			Box Quantity	Weight / Display
Construction	COB	---	---		

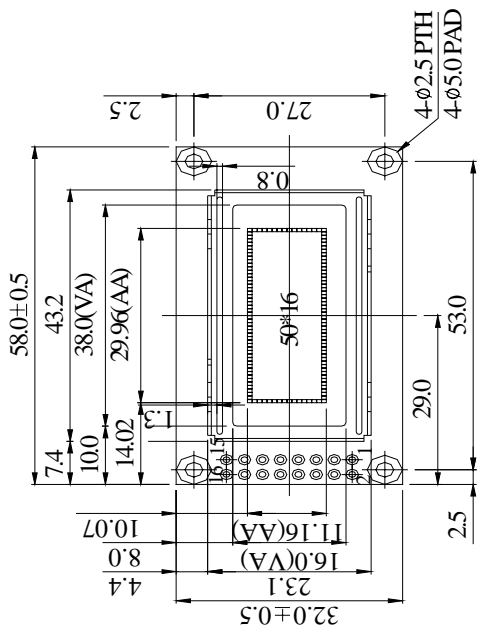
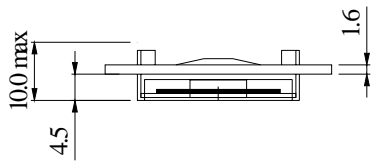
\* - For full design functionality, please use this specification in conjunction with the MC0010 specification. (Provided Separately)

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.
MCCBL1A16DILP-DILS-150	16 Way, Dual in-line to Dual in-line connector cable.

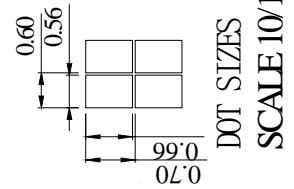
Optional Variants	
Appearance	Voltage
Yellow on Black	
White on Black	
Red on Black	
Green on Black	

## Mechanical Specifications

Module Size	58.00 x 32.00 x 10.00 ( 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 27.00	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



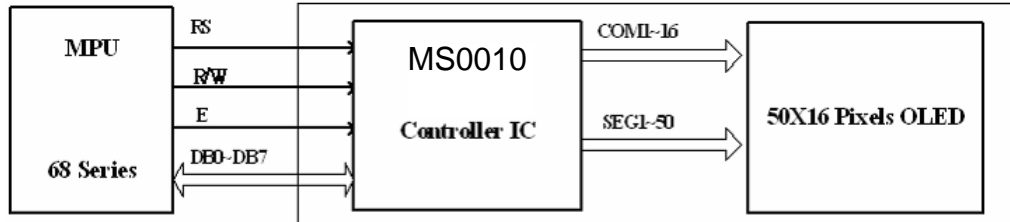
The non-specified tolerance of dimension is ±0.3 mm.



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## Pin layout

Pin	Symbol	Description	Remarks
1	VSS	Ground	
2	VDD	Supply Voltage for Logic	
3	NC	No Connection	
4	RS	H: Data L: Instruction Code	
5	RW	H: Read(MPU-->Module) L: Write(MPU-->Module)	
6	E	Chip Enable Signal	
7	DB0	Data Bus Line	
8	DB1	Data Bus Line	
9	DB2	Data Bus Line	
10	DB3	Data Bus Line	
11	DB4	Data Bus Line	
12	DB5	Data Bus Line	
13	DB6	Data Bus Line	
14	DB7	Data Bus Line	
15	NC	No Connection	
16	NC	No Connection	



Address Format	DB7	DB6	DB5	DB4	DB3	DB2	DB1	DB0
GXA(Graphic X-axis Address)	1	ADD6	ADD5	ADD4	ADD3	ADD2	ADD1	ADD0
GYA(Graphic Y-axis Address)	0	1	0	0	0	0	0	CGA0

	1	2	3	4	.....	.....	47	48	49	50
CGA=0	GXA=10000000	GXA=10000001	GXA=10000010	GXA=10000011	.....	.....	GXA=10101110	GXA=10101111	GXA=10110000	GXA=10110001
	GYA=01000000	GYA=01000001	GYA=01000010	GYA=01000011	.....	.....	GYA=01000000	GYA=01000001	GYA=01000000	GYA=01000001
CGA=1	GXA=10000000	GXA=10000001	GXA=10000010	GXA=10000011	.....	.....	GXA=10101110	GXA=10101111	GXA=10110000	GXA=10110001
	GYA=01000001	GYA=01000001	GYA=01000010	GYA=01000001	.....	.....	GYA=01000001	GYA=01000001	GYA=01000001	GYA=01000001

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Absolute Maximums Ratings					
Item	Symbol	Minimum	Typical	Maximum	Unit
Input Voltage	VI	-0.30	---	VDD	V
Supply Voltage for Logic	V0	-0.30	---	5.30	V
Operating Temperature	Vopr	-40	---	80	°C
Storage Temperature	Vstg	-40	---	80	°C

Electronic Characteristics						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Input High Voltage	VIH	---	0.80	---	VDD	V
Input Low Voltage	VIL	---	GND	---	0.20	V
Output High Voltage	VOH	IOH=-0.5mA	0.80	---	VDD	V
Output Low Voltage	VOL	IOL=0.5mA	GND	---	0.20	V
Supply Voltage for Logic	VDD-VSS	---	4.80	5.00	5.30	V
50% Checkboard Operating Current.	IDD	VDD=5V	15	19	24	mA

OLED Characteristics						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Viewing Angle	(V) $\theta$	---	160	---	---	Deg
	(H) $\phi$	---	160	---	---	Deg
Contrast Ratio	CR	Dark	2000:1	---	---	---
Response Time	T Rise	---	---	10	---	$\mu$ s
	T Fall	---	---	10	---	$\mu$ s
Display with 50% Checkboard Brightness			100	120	---	cd/m <sup>2</sup>
CIEx(Yellow)		(CIE1931)	0.45	0.47	0.49	---
CIEx(Yellow)		(CIE1931)	0.48	0.50	0.52	---

OLED Life Time			
Item	Conditions	Typical	Remark
Operating Life Time	Ta=25°C. Initial checkboard brightness, 125nits.	100,000 Hours	---

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