


MCOB22005AX-EYP	2 x 20	Euro/Jap/Cyrillic	OLED Module
Specification			
Version: 1	Date: 16/05/2017		
Revision			

Display Features					
Character Count	2 x 20			Box Quantity	Weight / Display
Appearance	Yellow on Black				
Logic Voltage	5V				
Interface	Parallel / SPI / I2C				
Font Set	English / European / Cyrillic				
Character Height	5.95 mm				
Module Size	116.00 x 37.00 x 9.00 mm				
Operating Temperature	-40°C ~ +80°C				
Construction	COB				

* - For full design functionality, please use this specification in conjunction with the SSD1311 specification. (Provided Separately)

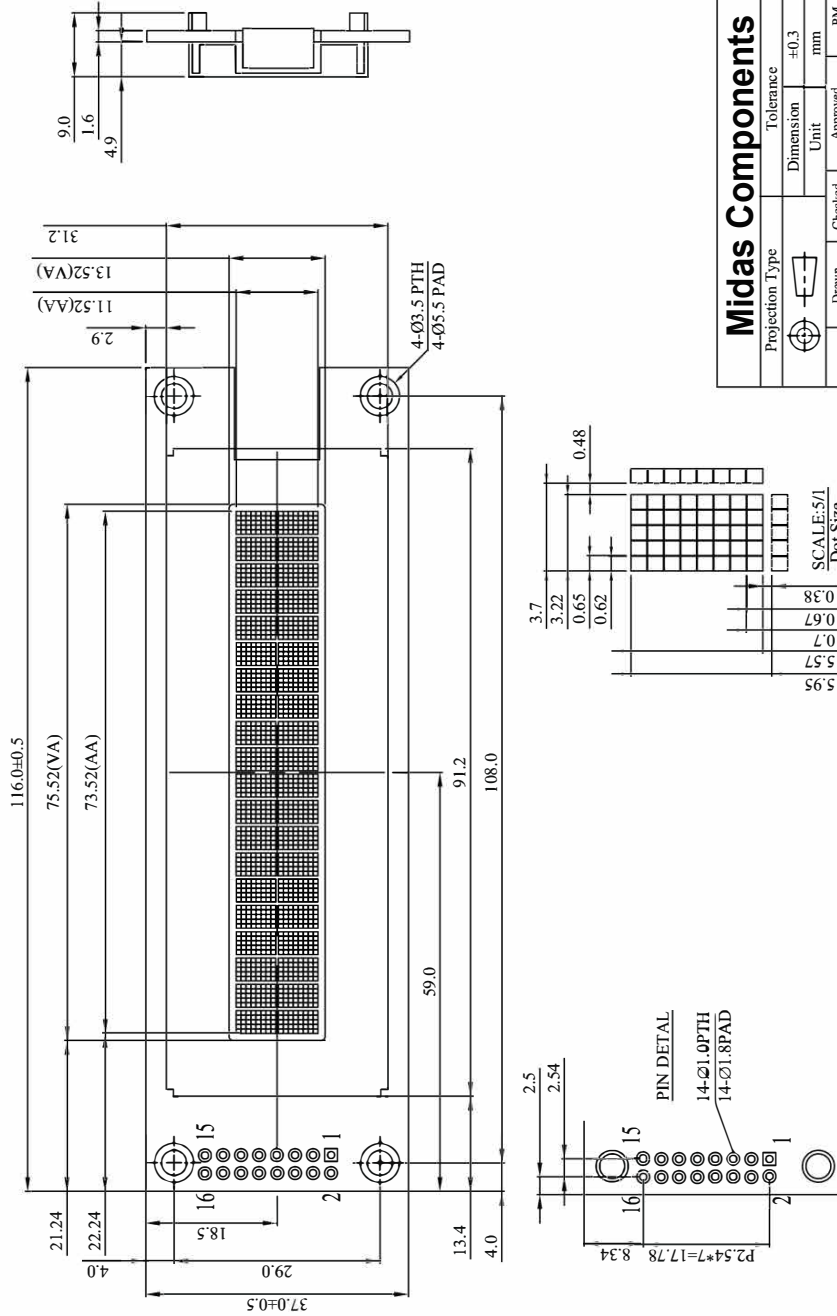
Display Accessories	
Part Number	Description
MCCMDB-16SIL	LCD Interconnect board, can be driven from either a PC or a single Board computer with a USB output.
MCCBL1A16DILP-DILS-150	16 Way, Dual in-line to Dual in-line connector cable.

Optional Variants	
Appearance	Voltage
Blue on Black White on Black Red on Black	

Mechanical Specifications

Module Size	116.00 x 37.00 x 9.00 (With Backlight)				W x H x D mm
Viewing Area	75.52 x 13.52	W x H mm	Hole-to-Hole	75.00 x 31.00	W x H mm
Character Size	3.70 x 5.95	W x H mm	Character Pitch	---	W x H mm
Dot Size	0.62 x 0.67	W x H mm	Dot Pitch	0.65 x 0.70	W x H mm

PIN NO.	SYMBOL
1	VSS
2	VDD
3	V ₀
4	RS
5	R/W#
6	E
7-14	DB0-7
15-16	NC



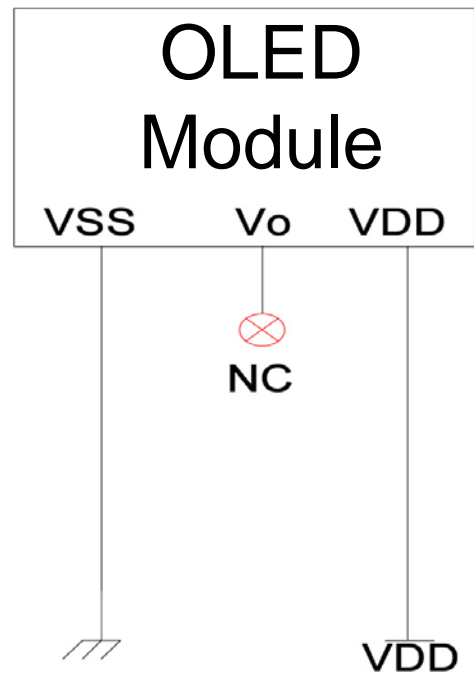
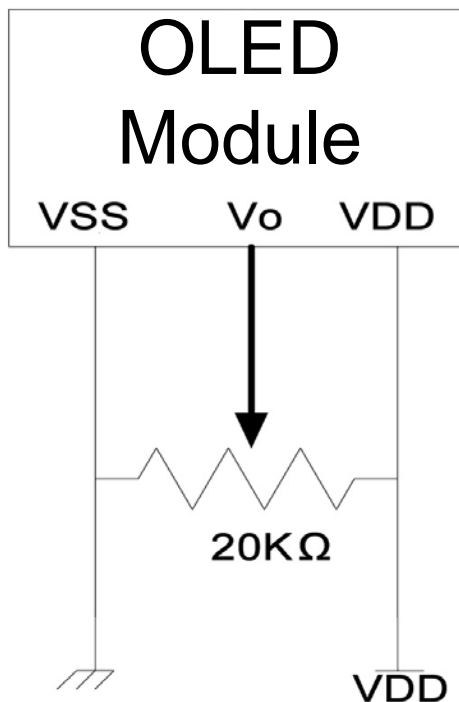
Midas Components		Drawing Number		Rev.	
Projection Type	Dimension	±0.3	mm	MODEL	A
Checked	Unit	mm		TITLE	
Approved	PM			OLED Module Drawing	
By	Eco-2048	Eco-0150	Eco-0097	Scale	Sheet
Note	2048.00	1500.00	0097.00	3/2	1 of 1
					A4

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Pin layout			
Pin	Symbol	Description	Remarks
1	VSS	Ground	5V
2	VDD	Supply Voltage for Logic	
3	Vo	Contrast Adjustment	
4	RS (D/C#)	Register select signal. H: Data L: Command	MPU
5	R/W# (WR#)	6800-Interface. Read/Write select signal: R/W=1 Read R/W=0 Write. 8080-Interface. Active Low write signal.	MPU
6	E or R/D	6800-Interface. Operational enable signal. Falling edge triggered. 8080-Interface. Active low read signal.	MPU
7-14	DB0~DB7	8-Bit Bi-Directional data bus lines.	MPU
15-16	NC	No Connection	

Adjust Brightness by Software & Hardware(VR)

Adjust Brightness by Software(Only)



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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)															
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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)															
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Upper 4bit Lower 4bit	LLLL	LLHH	LLHL	LLHH	LHLL	LHLH	LHHL	LHHH	HLLL	HLLH	HLHL	HLHH	HHLL	HHLH	HHHL	HHHH
LLLL	CG RAM (1)															
LLLH	(2)															
LLHL	(3)															
LLHH	(4)															
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Absolute Maximums Ratings					
Item	Symbol	Minimum	Typical	Maximum	Unit
Supply Voltage for Logic	V _O	-0.30	5.00	5.50	V
Input Voltage	V _I	-0.30	5.00	5.50	V

Electronic Characteristics						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Input Voltage for I/O Pins	V _I	Wide voltage I/O application	2.80	5.00	5.30	
Input High Voltage	V _{IH}	---	0.80	---	VDD	V
Input Low Voltage	V _{IL}	---	GND	---	0.20	V
Output High Voltage	V _{OH}	---	0.90	---	VDD	V
Output Low Voltage	V _{OL}	---	GND	---	0.10	V
Supply Voltage for Logic	VDD	Wide voltage I/O application	2.80	5.00	5.30	V
Supply Current for Logic	IDD	---	---	30	---	mA
Sleep Mode Current	IDD	---	---	1	10	μA

OLED Characteristics						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Viewing Angle	(V)θ	---	---	Free	---	Deg
	(H)φ	---	---	Free	---	Deg
Contrast Ratio	CR	Dark	>10,000:1	---	---	---
Brightness	LBR	---	---	125	---	cd/m ²
CIE _x (Yellow)		(CIE1931)	0.46	0.50	0.54	---
CIE _y (Yellow)		(CIE1931)	0.45	0.49	0.53	---

OLED Life Time			
Item	Conditions	Typical	Remark
Operating Life Time	T _a =25°C. Initial checkboard brightness, 50%.	100,000 Hours	---

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