


MCOT128064U1V-YM	128 x 64	Yellow	OLED Module
Specification			
Version: 1		Date: 16/05/2017	
Revision			

Display Features					
Resolution	128 x 64				
Appearance	Yellow on Black				
Logic Voltage	5V				
Interface	Parallel / SPI / I2C				
Module Size	73.00 x 41.86 x 2.05				
Operating Temperature	-40°C ~ +80°C			Box Quantity	Weight / Display
Construction	COT	---	---		

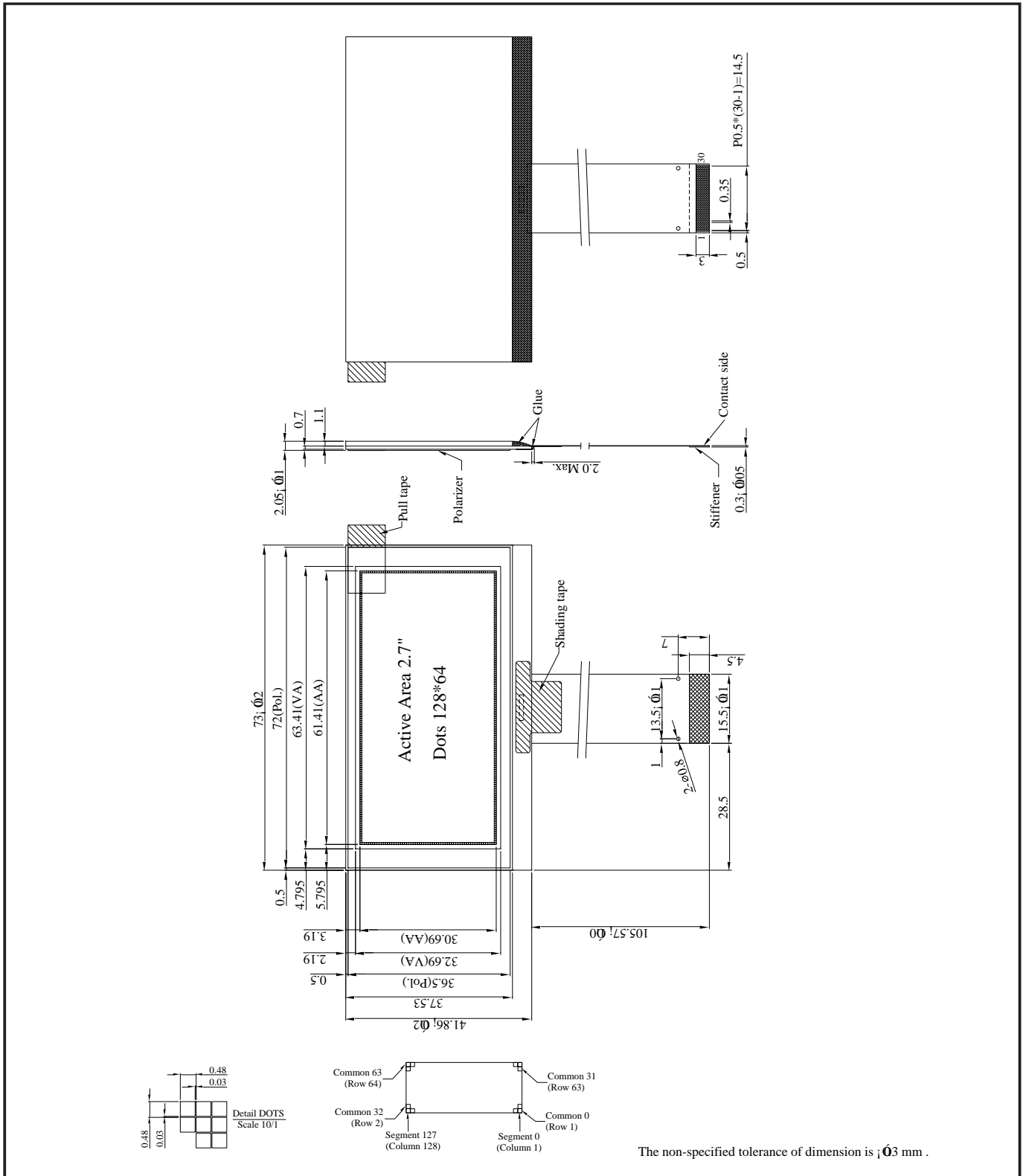
* - For full design functionality, please use this specification in conjunction with the SSD1309 specification. (Provided Separately)

Display Accessories	
Part Number	Description
MPBV7	30 Way 0.5mm pitch interface board. Compatible with MCIB-12
MCIB-12	UD32 breakout board with SD card and LED back light driver.

Optional Variants	
Appearance	Voltage
Blue on Black White on Black	

Mechanical Specifications

Module Size	73.00 x 41.86 x 2.05 (With Backlight)			W x H x D mm	
Viewing Area	63.41 x 32.69	W x H mm	Hole-to-Hole	---	W x H mm
Dot Size	0.45 x 0.45	W x H mm	Dot Pitch	0.48 x 0.48	W x H mm



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Pin layout			
Pin	Symbol	Description	Remarks
1	NC	No Connection.	
2	VCC	Power supply driving voltage.	
3	VCOMH	COM signal deselected voltage level.	
4	IREF	Segment output current reference pin. Supplied externally.	
5-12	D0~D7	Bi-directional data bus connecting to the MCU data bus. SPI selected = D0 is serial clock input (SCLK) D1 will be serial data input (SDIN). I2C selected = D2, D1 tied together serving as SDAout. SDAin in application and D0 is the serial clock input (SCL).	
13	E/RD#	MCU interface input. 6800 selected = Pin used as enable signal (E). Read/write initiated when pin pulled high. 8080 selected = Pin receives read (RD#) signal. Read initiated when pin pulled low. I2C / SPI selected = Connect pin to VSS.	
14	R/W#	Read / Write control input connecting to MCU interface. 6800 Selected = Pin used as Read/write (R/W#) selection input. Read mode when pin is pulled high; write mode when pulled low. 8080 Selected = Pin used as Write (WR#) input. Data Write initiated when pin pulled low. I2C / SPI selected = Connect to VSS.	
15	D/C#	Data / Command control pin connecting to MCU. Pulled high = D (7:0) interpreted as data. Pulled low = D (7:0) transferred to a command register. I2C Selected = Pin acts as SA0 for slave address selection. SPI Selected = Connect to VSS	
16	RES#	Reset Signal Input.	
17	CS#	Chip Select Input.	
18	NC	No Connection.	
19	BS2	MCU bus interface pins. Select appropriate logic settings: I2C: BS1= 1 BS2= 0 SPI: BS1= 0 BS2= 0 6800 Parallel: BS1= 0 BS2= 1 8800 Parallel: BS1= 1 BS2= 1	
20	BS1		
21	VDD	Power Supply pin for core logic operation.	
22~28	NC	No Connection	
29	VSS	Ground	
30	NC	No Connection.	

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Absolute Maximums Ratings					
Item	Symbol	Minimum	Typical	Maximum	Unit
Supply Voltage for Display	V _I	0.00	---	15.00	V
Supply Voltage for Logic	V _O	-0.30	---	4.00	V
Operating Temperature	V _{opr}	-40	---	80	°C
Storage Temperature	V _{stg}	-40	---	80	°C

Electronic Characteristics						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Input High Voltage	V _{IH}	---	0.90	---	V _{DD}	V
Input Low Voltage	V _{IL}	---	GND	---	0.10	V
Output High Voltage	V _{OH}	---	0.90	---	V _{DD}	V
Output Low Voltage	V _{OL}	---	GND	---	0.10	V
Supply Voltage for Logic	V _{DD} ~V _{SS}	---	2.80	3.00	3.30	V
50% Checkboard Operating Current.	I _{DD}	V _{DD} =13V	20	22	24	mA

OLED Characteristics						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Viewing Angle	(V)θ	---	160	---	---	Deg
	(H)φ	---	160	---	---	Deg
Contrast Ratio	CR	Dark	2000:1	---	---	---
Response Time	T Rise	---	---	10	---	μs
	T Fall	---	---	10	---	μs
Display with 50% Checkboard Brightness			60	80	---	cd/m ²
CIEx(Yellow)		(CIE1931)	0.45	0.47	0.49	---
CIEy(Yellow)		(CIE1931)	0.48	0.50	0.52	---

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

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