


MCOT048064A1V-YI	48 x 64	Yellow	OLED Module
<b>Specification</b>			
Version: 2		Date: 19/07/2017	
<b>Revision</b>			
1	05/12/2016	First release	
2	25/01/2017	Correct Contour Drawing	

Display Features			Box Quantity	Weight / Display		
Resolution	48 x 64				---	---
Appearance	Yellow on Black					
Logic Voltage	3V					
Interface	I2C					
Module Size	13.90 x 22.00 x 1.26 mm					
Operating Temperature	-40°C ~ +80°C					
Construction	TAB					

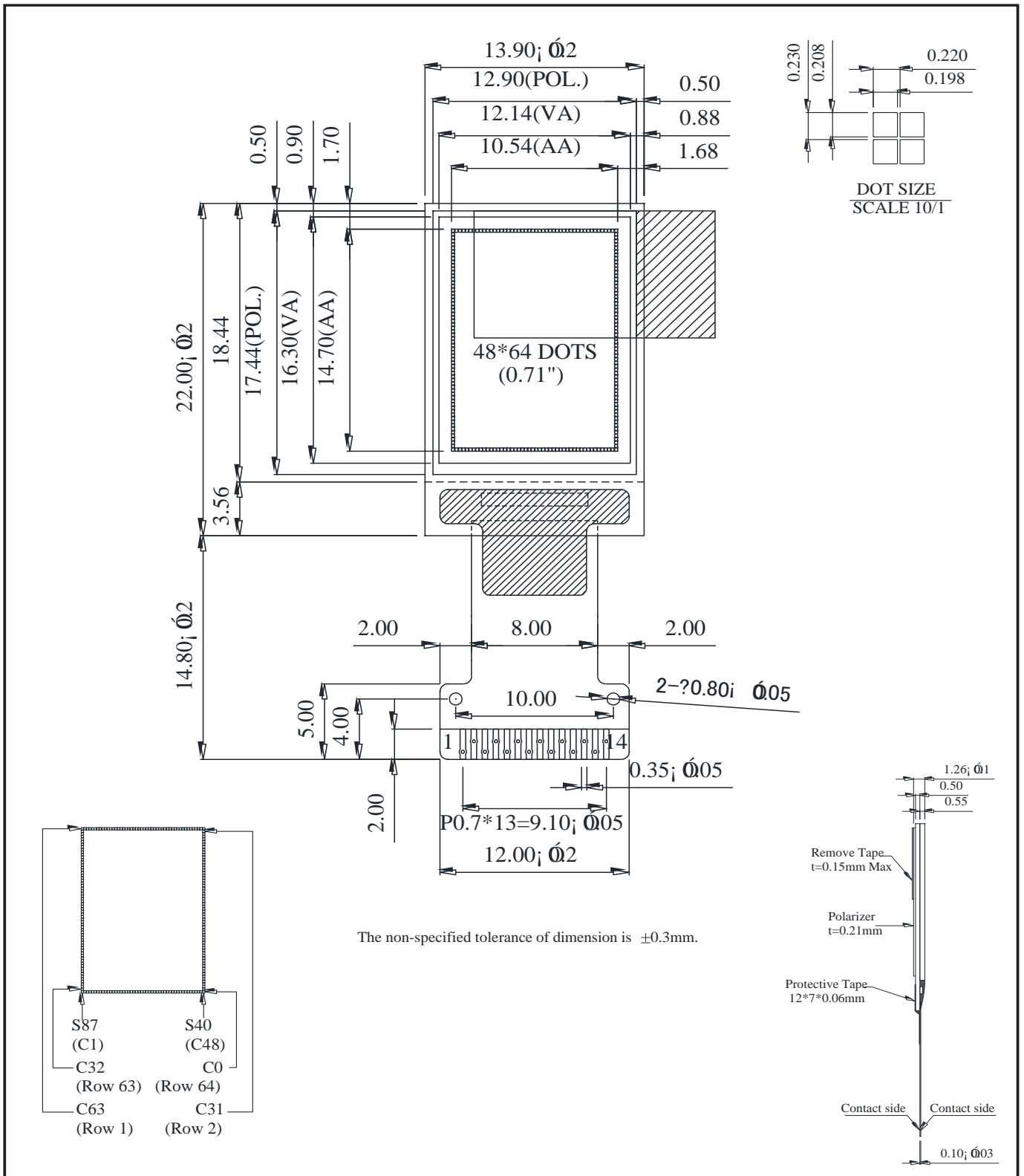
\* - For full design functionality, please use this specification in conjunction with the SSD1306BZ specification. (Provided Separately)

Display Accessories	
Part Number	Description
MPBV4-ISS2	Direct solder interconnect board. supports 0.7, 0.8, 0.845 and 1mm pitch. Driven from any driver board that can wire 20 a 2mm pitch, 44 way DIL.

Optional Variants	
Appearance	Voltage
Yellow on Black	
Blue on Black	

# Mechanical Specifications

Module Size	13.90 x 22.00 x 1.26 (Without Backlight)			W x H x D mm	
Viewing Area	12.14 x 16.30	W x H mm	Hole-to-Hole	---	W x H mm
Dot Size	0.198 x 0.208	W x H mm	Dot Pitch	0.220 x 0.230	W x H mm



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Pin layout			
Pin	Symbol	Description	Remarks
1	C2N	Positive Terminal of the Flying Inverting Capacitor Negative Terminal of the Flying Boost Capacitor. The charge-pump capacitors are required between the terminals. They must be floated when the converter is not used.	
2	C2P		
3	C1P		
4	C1N		
5	VBAT	Power Supply for DC/DC Converter Circuit This is the power supply pin for the internal buffer of the DC/DC voltage converter. It must be connected to external source when the converter is used. It should be connected to VDD when the converter is not used.	
6	NC	No connection.	
7	VSS	Ground of Logic Circuit This is a ground pin. It acts as a reference for the logic pins. It must be connected to external ground.	
8	VDD	Power Supply for Logic This is a voltage supply pin. It must be connected to external source.	
9	RES#	Power Reset for Controller and Driver This pin is reset signal input. When the pin is low, initialization of the chip is executed.	
10	SCL	Host Data Input/Output Bus When serial mode selected, D1 is the serial data input SDIN and D0 is the serial clock input SCLK. When I2C mode is selected, D2 & D1 should be tied together and serve as SDAout & SDAin in application and D0 is the serial clock input SCL.	
11	SDA		
12	IREF	Current Reference for Brightness Adjustment This pin is segment current reference pin. A resistor should be connected between this pin and VSS. Set the current lower than 12.5 $\mu$ A.	
13	VCOMH	Voltage Output High Level for COM Signal This pin is the input pin for the voltage output high level for COM signals. A capacitor should be connected between this pin and VSS.	
14	VCC	Power Supply for OEL Panel This is the most positive voltage supply pin of the chip. A stabilization capacitor should be connected between this pin and VSS when the converter is used. It must be connected to external source when the converter is not used.	

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Absolute Maximums Ratings					
Item	Symbol	Minimum	Typical	Maximum	Unit
Supply Voltage for Display	VCC	0.00	---	15.00	V
Supply Voltage for Logic	VDD	0.00	---	4.00	V
Operating Temperature	TOP	-40	---	80	°C
Storage Temperature	TSTG	-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	---	0.90	---	VDD	V
Output Low Voltage	VOL	---	GND	---	0.10	V
Supply Voltage for Logic	VDD	---	2.80	3.00	3.30	V
Supply Voltage for Display	VCC	---	7.00	7.50	7.80	V
50% Checkboard Operating Current.	ICC	VDD=7.5V	---	15.00	25.00	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, 50%.	50,000 Hours	---

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