

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

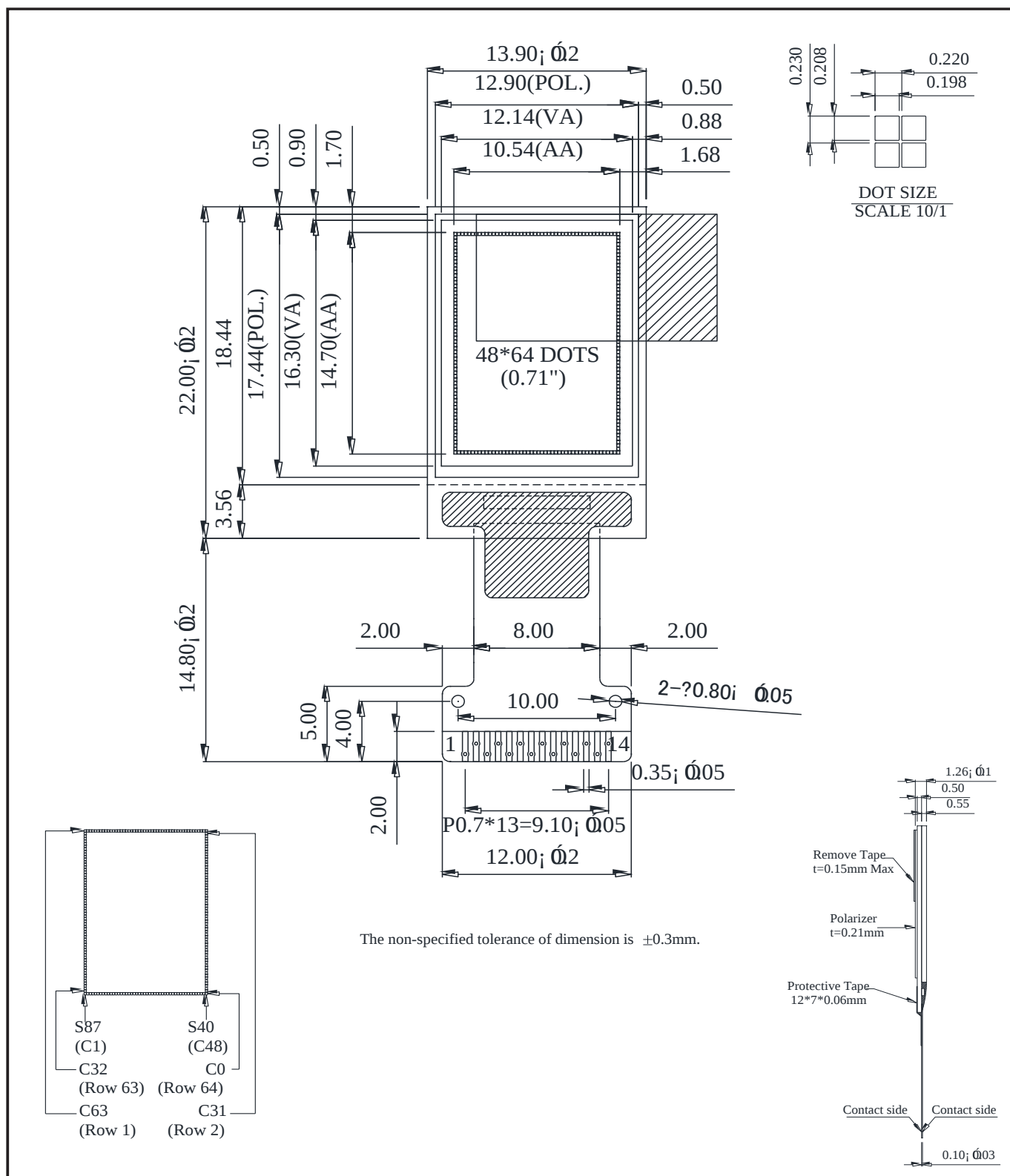
Display Features			
Resolution	48 x 64		
Appearance	Yellow on Black		
Logic Voltage	3V		
Interface	I2C		
Module Size	13.90 x 22.00 x 1.26 mm		
Operating Temperature	-40°C ~ +80°C	Box Quantity	Weight / Display
Construction	TAB	---	---

* - 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 12.5μA.	
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)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			100	120	---	cd/m ²
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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