

MCOT128032AY-WS	128 x 32	White	OLED Module
Specification			
Version: 1	Date: 16/05/2017		
Revision			

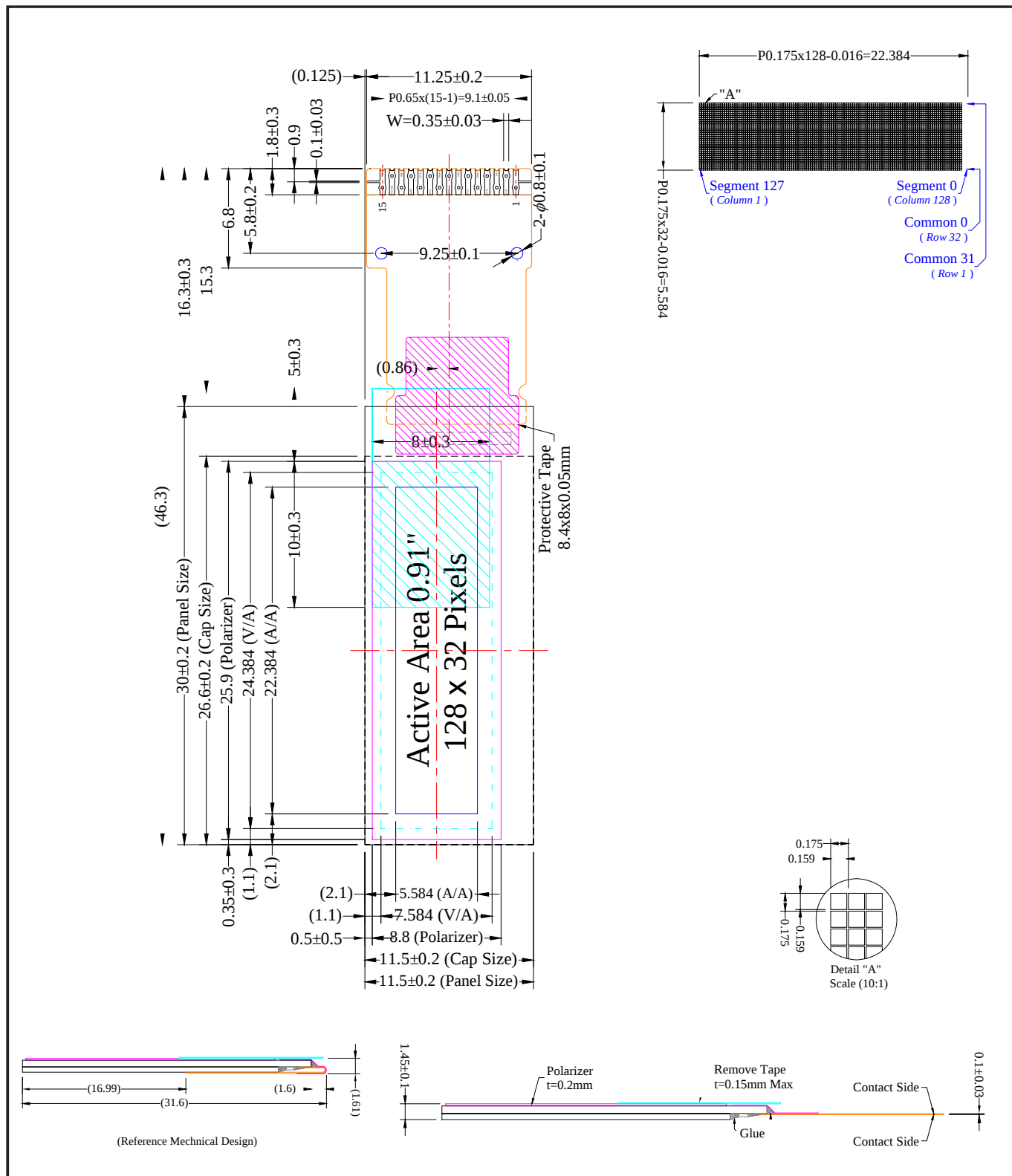
Display Features			
Resolution	128 x 32		
Appearance	White on Black		
Logic Voltage	3V		
Interface	SPI		
Module Size	30.00 x 11.50 x 1.45		
Operating Temperature	-40°C ~ +80°C		
Construction	TAB	Box Quantity	Weight / Display
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* - For full design functionality, please use this specification in conjunction with the SSD1306 specification. (Provided Separately)

Display Accessories	
Part Number	Description

Optional Variants	
Appearance	Voltage
Blue on Black	

Mechanical Specifications					
Module Size	30.00 x 11.50 x 1.45 (With Backlight)				W x H x D mm
Viewing Area	24.38 x 7.58	W x H mm	Hole-to-Hole	---	W x H mm
Dot Size	0.159 x 0.159	W x H mm	Dot Pitch	0.175 x 0.175	W x H mm

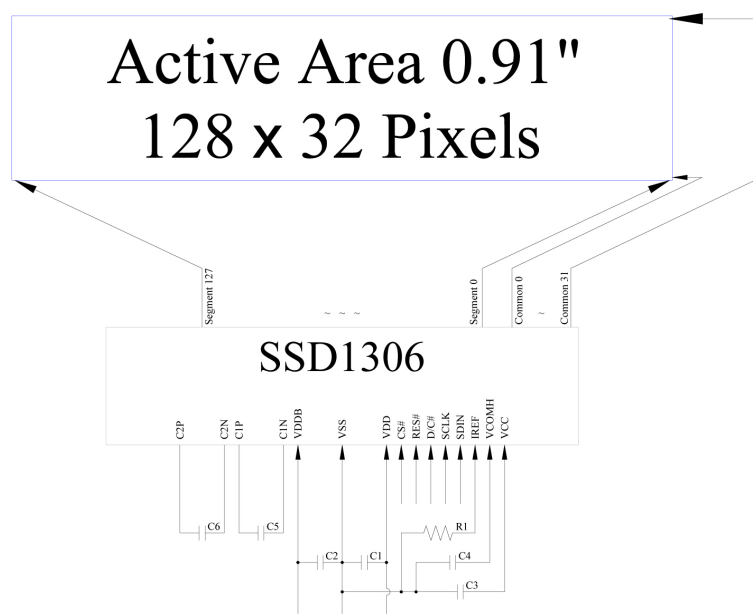
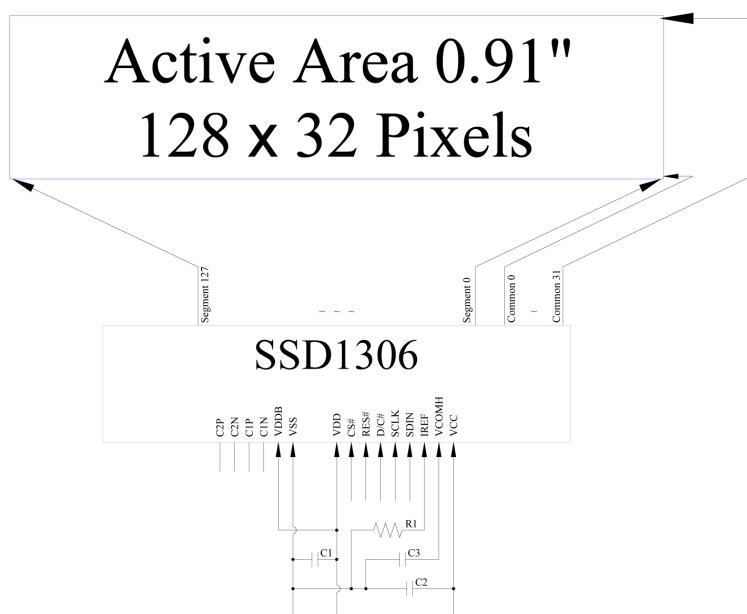


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Pin layout			
Pin	Symbol	Description	Remarks
1/2 3/4	C2P / C2N C1P / C1N	Positive terminal of the flying inverting capacitor. Negative terminal of the flying boost capacitor. The charge-pump capacitors are required between the terminals. They must be floated when the converter is not used.	I
5	Vddb	Power Supply for DC / DC converter circuit.	P
6	VSS	Ground of OEL system	P
7	VDD	Power Supply for Logic Circuit.	P
8	CS#	Chip Select.	I
9	RES#	Power Reset for Controller and Driver.	I
10	D/C#	Data / Command Control.	I
11	SCLK	Serial Clock Input Signal.	I
12	SDIN	Serial Data Input Signal.	I
13	IREF	Current reference for Brightness Adjustment.	I
14	VCOMH	Voltage Output high level for COM Signal.	O
15	VCC	Power Supply for OEL Panel.	P

VCC Supplied Externally

VCC Generated by Internal DC/DC Circuit



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Absolute Maximums Ratings					
Item	Symbol	Minimum	Typical	Maximum	Unit
Supply Voltage for Display	VI	-0.30	---	11.00	V
Supply Voltage for Logic	V0	-0.30	---	4.00	V
Operating Temperature	Vopr	-40	---	80	°C
Storage Temperature	Vstg	-40	---	80	°C

Electronic Characteristics						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Supply Voltage for Logic	VCI	Internal DC/DC Disable	1.65	2.80	3.30	V
Supply Voltage for Display (Supplied Externally)	VCC	Internal DC/DC Enable	7.00	7.25	7.50	V
Supply Voltage for DC/DC	VDDDB	Internal DC/DC Disable	3.30	---	4.20	V
Supply Voltage Display (Internal DC/DC)	VCC		7.00	---	7.50	V
Operating Current for VDD	IDD		---	180	300	μA
Operating Current for VCC (Supplied Externally)	ICC		---	3.00	3.80	mA
			---	4.50	5.60	mA
			---	7.80	9.80	mA
Operating Current for VCC (Internal DC/DC)	IDDB		---	9.10	11.40	mA
			---	13.30	16.60	mA
			---	21.70	27.10	mA
Sleep Mode Current for VDD	IDD, Sleep		---	1.00	5.00	μA
Sleep Mode Current for VCC	ICC, Sleep		---	2.00	10.00	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	---	---
Display with 50% Checkboard Brightness			120	150	---	cd/m ²
CIEx(Yellow)		(CIE1931)	0.25	0.29	0.33	---
CIEx(Yellow)		(CIE1931)	0.27	0.31	0.35	---

OLED Life Time			
Item	Conditions	Typical	Remark
Operating Life Time	Running at 50 cd/m ²	70,000 Hours	---

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