

OLED DISPLAY SPECIFICATION



RAYSTAR

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REX009616A

General Specification

The Features is described as follow:

- Module Dimension: 29.1× 9.2 ×1.26mm
- Active Area: 21.104×3.504 mm
- Dot Matrix: 96×16
- Pixel Size: 0.198 × 0.198 mm
- Pixel Pitch: 0.220 × 0.220 mm
- Display Mode : Passive Matrix
- Duty: 1/16 Duty
- Display Color: Monochrome
- IC: SSD1306
- Interface: I2C
- Size: 0.84-inch

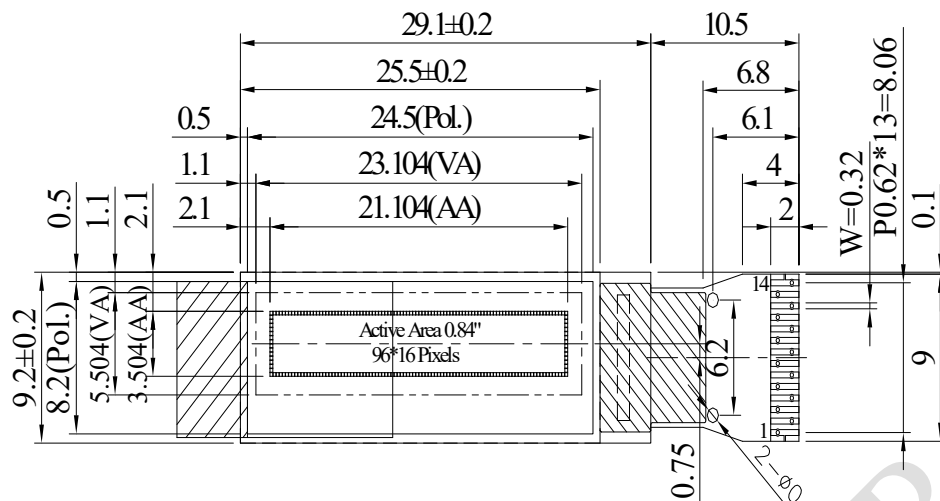
Interface Pin Functions

Pin No.	Symbol	Function
1	C2N	<i>Positive Terminal of the Flying Inverting Capacitor Negative Terminal of the Flying Boost Capacitor</i> 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	<i>Power Supply for DC/DC Converter Circuit</i> 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	<i>Ground of Logic Circuit</i> This is a ground pin. It acts as a reference for the logic pins. It must be connected to external ground.
8	VDD	<i>Power Supply for Logic</i> This is a voltage supply pin. It must be connected to external source.
9	RES#	<i>Power Reset for Controller and Driver</i> This pin is reset signal input. When the pin is low, initialization of the chip is executed.
10	SCL	<i>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.</i>
11	SDA	
12	IREF	<i>Current Reference for Brightness Adjustment</i> 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	<i>Voltage Output High Level for COM Signal</i> 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	<i>Power Supply for OEL Panel</i> This is the most positive voltage supply pin of the chip. A stabilization capacitor should be connected between this pin and VSS when the

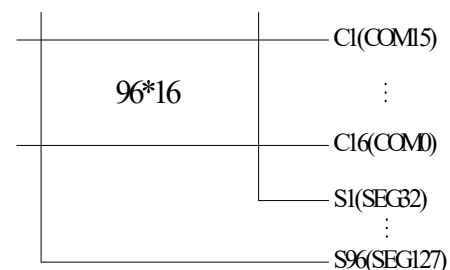
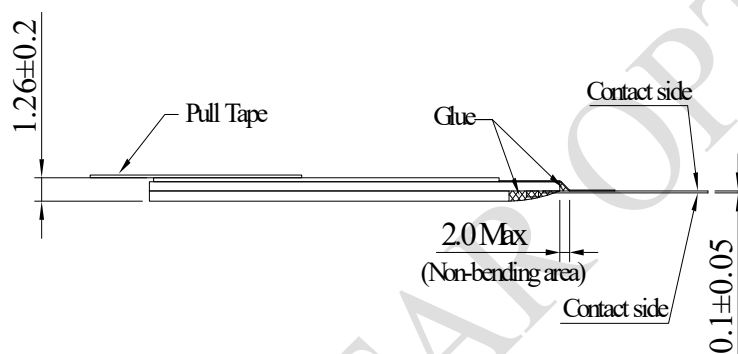
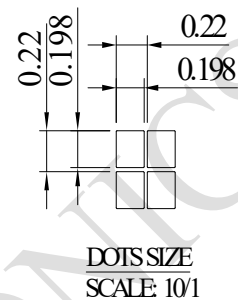
		converter is used. It must be connected to external source when the converter is not used.
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Contour Drawing



PIN	SYMBOL
1	C2N
2	C2P
3	CIP
4	CIN
5	VBAT
6	NC
7	VSS
8	VDD
9	RES#
10	SCL
11	SDA
12	IREF
13	VCOMH
14	VCC



The non-specified tolerance of dimension is ± 0.3 mm.

Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Supply Voltage for Logic	VDD	0	4.0	V
Supply Voltage for Display	VCC	0	16.0	V
Operating Temperature	TOP	-40	+80	°C
Storage Temperature	TSTG	-40	+85	°C

Electrical Characteristics

DC Electrical Characteristics

Item	Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage for Logic	VDD	—	2.8	3.0	3.3	V
Supply Voltage for Display (Supplied Externally)	VCC	—	7.0	7.5	7.8	V
Charge Pump Regulator Supply Voltage	VBAT	—	3.3	—	4.2	V
Charge Pump Output Voltage for Display (Generated by Internal DC/DC)	Charge Pump VCC	—	7.0	7.5	7.8	V
Input High Volt	VIH	—	$0.8 \times VDD$	—	VDD	V
Input Low Volt	VIL	—	0	—	$0.2 \times VDD$	V
Output High Volt	VOH	—	$0.9 \times VDD$	—	VDD	V
Output Low Volt	VOL	—	0	—	$0.1 \times VDD$	V
50% Check Board Operating Current (VCC Supplied Externally)	ICC	—	—	7	15	mA
50% Check Board Operating Current (VCC Generated by Internal DC/DC)	IBAT	—	10	15	25	mA