

WINSTAR Display

OLED SPECIFICATION

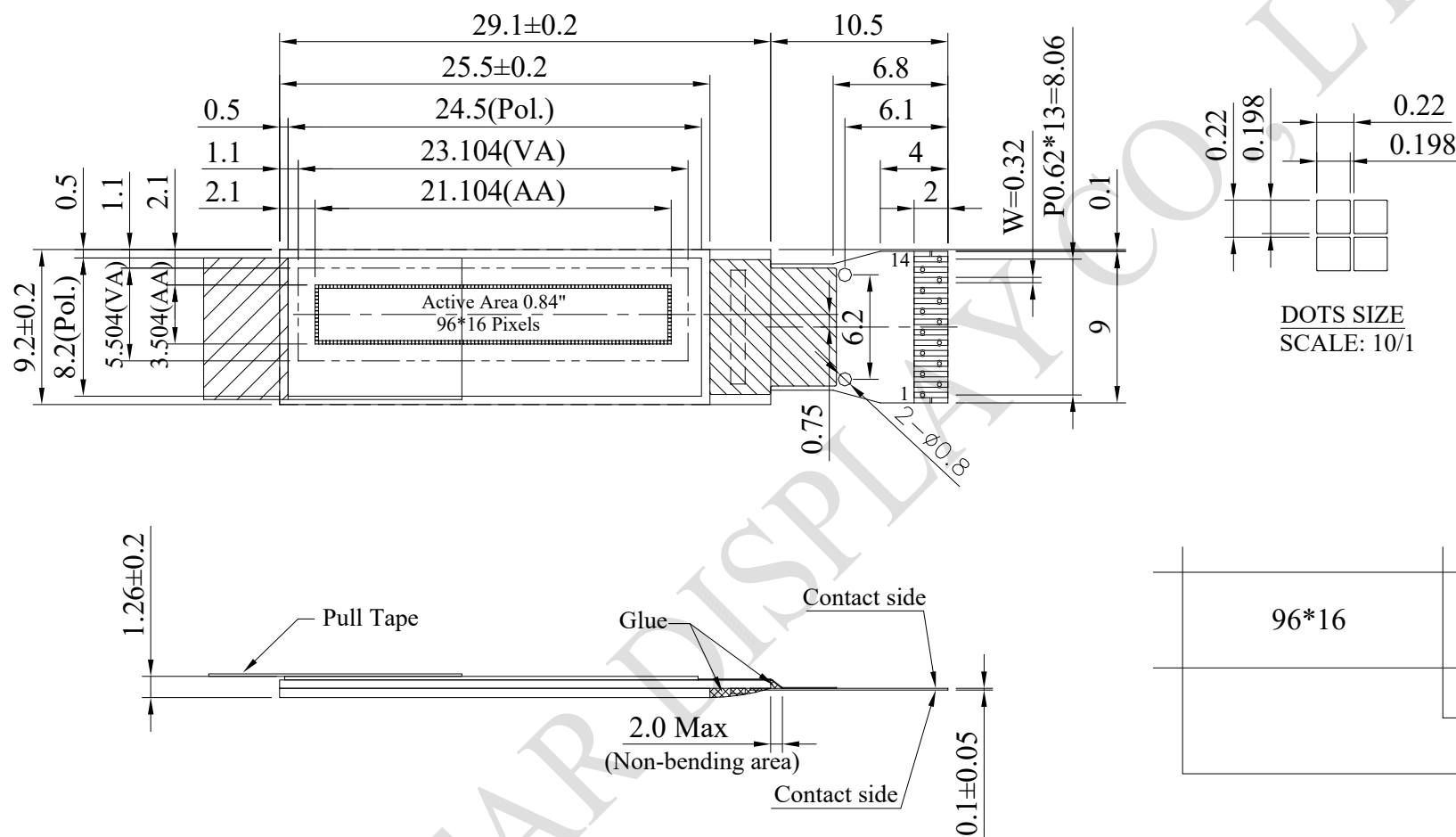
Model No:

WEO009616A

General Specification

Item	Dimension	Unit
Dot Matrix	96 x 16 Dots	—
Module dimension	29.1× 9.2 × 1.26	mm
Active Area	21.104 × 3.504	mm
Pixel Size	0.198 × 0.198	mm
Pixel Pitch	0.220 × 0.220	mm
Display Mode	Passive Matrix	
Display Color	Monochrome	
Drive Duty	1/16 Duty	
IC	SSD1306	
Interface	I2C	
Size	0.84 inch	

Contour Drawing & Block Diagram



PIN	SYMBOL
1	C2N
2	C2P
3	C1P
4	C1N
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 .

Interface Pin Function

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 30uA.
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.

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	—	1.65	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×VDD	—	VDD	V
Input Low Volt.	VIL	—	0	—	0.2×VDD	V
Output High Volt.	VOH	—	0.9×VDD	—	VDD	V
Output Low Volt.	VOL	—	0	—	0.1×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