WINSTAR Display

OLED SPECIFICATION

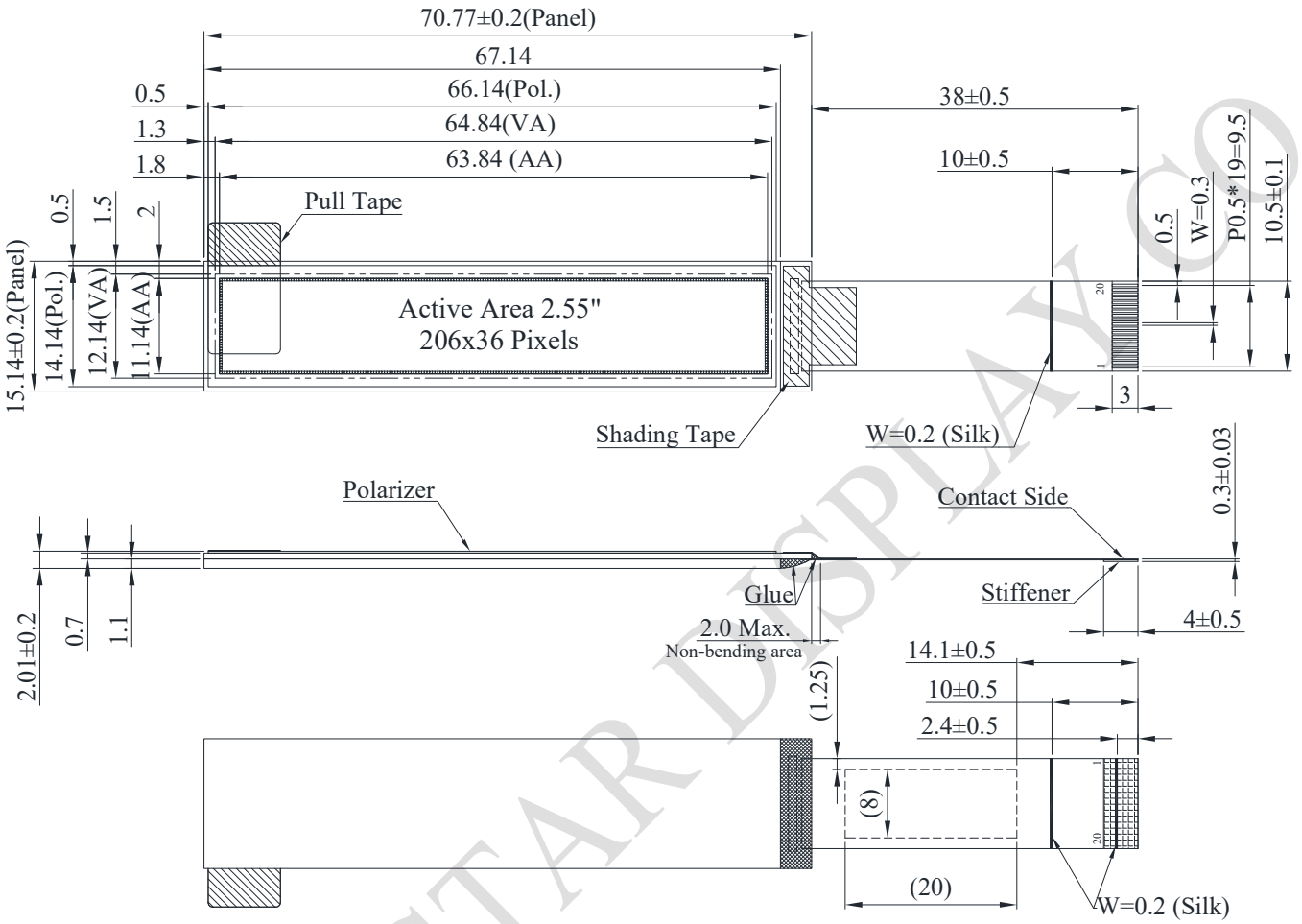
Model No:

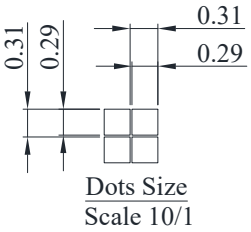
WEO020636A

General Specification

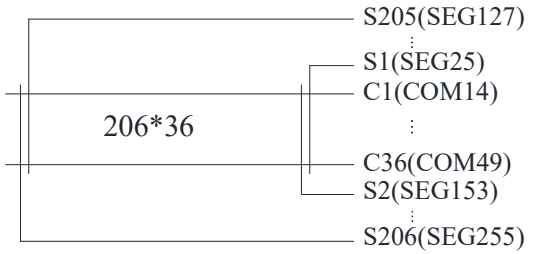
Item	Dimension	Unit
Dot Matrix	206 x 36 Dots	—
Module dimension	70.77 x 15.14 x 2.01	mm
Active Area	63.84 x 11.14	mm
Pixel Size	0.29 x 0.29	mm
Pixel Pitch	0.31 x 0.31	mm
Display Mode	Passive Matrix	
Display Color	Monochrome	
Drive Duty	1/36 Duty	
Gray Scale	4 Bits	
IC	SSD1362	
Interface	3-Wire SPI、4-Wire SPI、I2C	
Size	2.55 inch	

Contour Drawing & Block Diagram





PIN	SYMBOL
1	VCC
2	VCOMH
3	VP
4	VSL
5	VLSS
6	VDD
7	VCI
8	VDDIO
9	CS#
10	RES#
11	D/C#
12	D0
13	D1
14	D2
15	BS0
16	BS1
17	VSS
18	IREF
19	VCC
20	VCC



Seg&Com Layout

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

Interface Pin Function

No.	Symbol	Function
1	VCC	Power supply for panel driving voltage. This is also the most positive power voltage supply pin. It is supplied by external high voltage source.
2	VCOMH	COM signal deselected voltage level. A capacitor should be connected between this pin and VSS. No external power supply is allowed to connect to this pin.
3	VP	This pin is the segment pre-charge voltage reference pin. A capacitor should be connected between this pin and VSS. No external power supply is allowed to connect to this pin.
4	VSL	This is a reserved pin. It should be connected to VLSS externally.
5	VLSS	Analog system ground pin. It must be connected to external ground.
6	VDD	VDD can be supplied externally (within the range of 1.65V to 2.6V) or regulated internally from VCI when VCI is >2.6V.A capacitor should be connected between VDD and VSS under all circumstances.
7	VCI	Low voltage power supply. VCI must always be equal to or higher than VDD and VDDIO.
8	VDDIO	Power supply for interface logic level. It should match with the MCU interface voltage level and must be connected to external source.
9	CS#	This pin is the chip select input connecting to the MCU. The chip is enabled for MCU communication only when CS# is pulled Low (active Low).In I2C mode, this pin must be connected to VSS.
10	RES#	This pin is reset signal input. When the pin is pulled Low, initialization of the chip is executed. Keep this pin pull HIGH during normal operation.
11	D/C#	This pin is Data/Command control pin connecting to the MCU. When the pin is pulled HIGH, the data will be interpreted as data. When the pin is pulled LOW, the data will be transferred to a command register. In I2C mode, this pin acts as SA0 for slave address selection. When 3-wire serial interface is selected, this pin must be connected to VSS.
12	D0	These pins are bi-directional data bus connecting to the MCU data bus. Unused pins are recommended to tie Low. When serial interface mode is selected,D0 will be the serial clock input: SCLK;D1 will be the serial data input: SID. 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.
13	D1	
14	D2	

<table>
<tr><td>15</td><td>BS0</td><td rowspan="2">MCU bus interface selection pins.<table><tr><th>BS[1:0]</th><th>Interface</th></tr><tr><td>00</td><td>4-Wire SPI</td></tr><tr><td>01</td><td>3-Wire SPI</td></tr><tr><td>10</td><td>I2C</td></tr></table></td></tr>
<tr><td>16</td><td>BS1</td></tr>
<tr><td>17</td><td>VSS</td><td>Ground pin.</td></tr>
<tr><td>18</td><td>IREF</td><td>When external IREF is used, a resistor should be connected between this pin and VSS to maintain current of around 18.75uA.
When internal IREF is used, this pin should be kept NC.</td></tr>
<tr><td>19~20</td><td>VCC</td><td>Power supply for panel driving voltage. This is also the most positive power voltage supply pin. It is supplied by external high voltage source.</td></tr>
</table>

Note

(1) Low is connected to VSS

(2) High is connected to VCI

Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Supply Voltage	VDD	-0.5	2.75	V
Supply Voltage	VCI	-0.3	5.5	V
Supply Voltage	VDDIO	-0.5	5.5	V
Supply Voltage	VCC	7	21	V
Operating Temperature	TOP	-40	+80	°C
Storage Temperature	TSTG	-40	+85	°C

6.Electrical Characteristics

1 DC Electrical Characteristics

Item	Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage for Display	VCC	–	10.0	12.0	12.5	V
Low voltage power supply	VCI	–	1.65	–	3.5	V
Power supply for I/O pins	VDDIO	–	1.65	–	VCI	V
Logic Supply Voltage	VDD	–	1.65	–	2.6	V
High Level Input	VIH	–	0.8×VDDIO	–	–	V
Low Level Input	VIL	–	–	–	0.2×VDDIO	V
High Level Output	VOH	–	0.9×VDDIO	–	–	V
Low Level Output	VOL	–	–	–	0.1×VDDIO	V
Display 50% Pixel on	ICC	VCC =12V	–	25	35	mA