WINSTAR Display

OLED SPECIFICATION

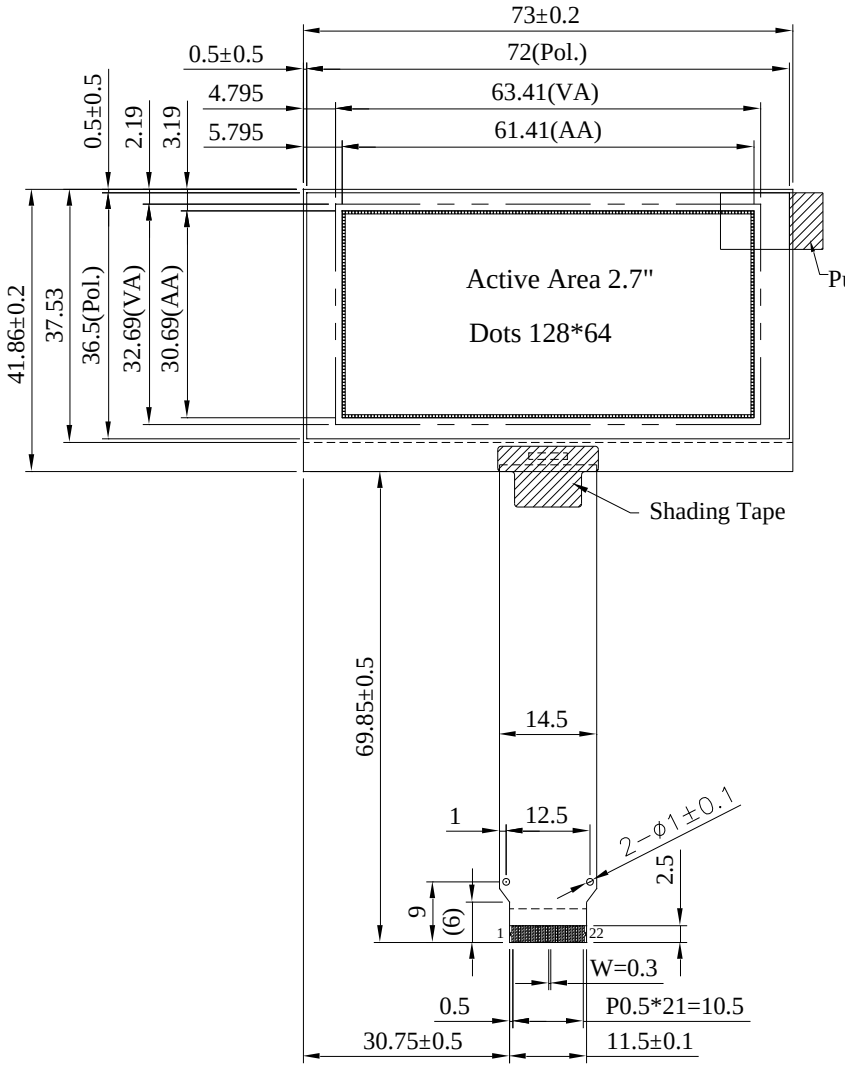
Model No:

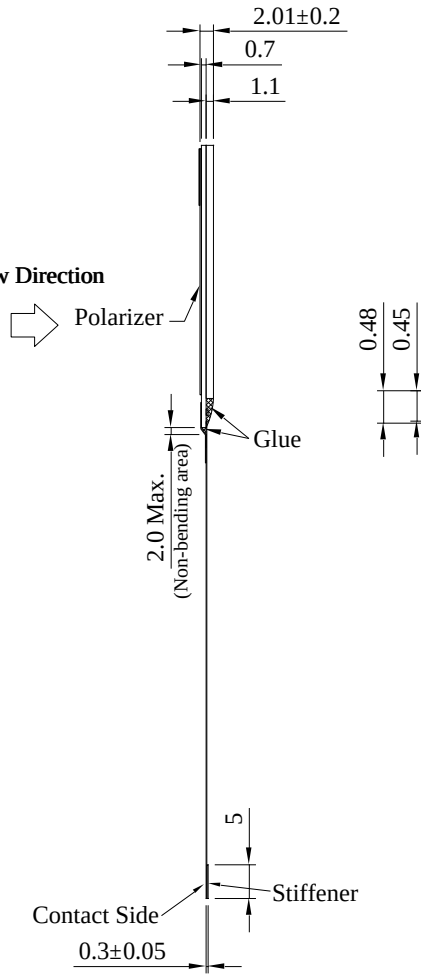
WEO12864W#K08-FC

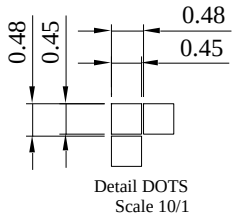
General Specification

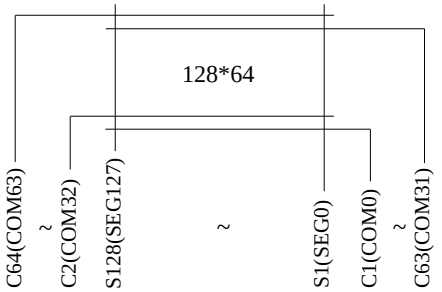
Item	Dimension	Unit
Dot Matrix	128 x 64	—
Module dimension	73.0 × 41.86 × 2.01	mm
Active Area	61.41 × 30.69	mm
Pixel Size	0.45 × 0.45	mm
Pixel Pitch	0.48 × 0.48	mm
Display Mode	Passive Matrix	
Display Color	Monochrome (White)	
Drive Duty	1/64 Duty	
IC	SSD1309	
Interface	6800, 8080, SPI, I2C	
Size	2.7 inch	

Contour Drawing & Block Diagram









PIN	SYMBOL	PIN	SYMBOL
1	VCC	12	E/RD#
2	VCOMH	13	R/W#
3	IREF	14	D/C#
4	D7	15	RES#
5	D6	16	CS#
6	D5	17	BS2
7	D4	18	BS1
8	D3	19	VDD
9	D2	20	NC
10	D1	21	VSS
11	D0	22	VSS

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

Interface Pin Function

<table>
<tr><th>No.</th><th>Symbol</th><th>Function</th></tr>
<tr><td>1</td><td>VCC</td><td>Power supply for analog circuit.</td></tr>
<tr><td>2</td><td>VCOMH</td><td>Com Voltage Output. A capacitor should be connected between this pin and VSS.</td></tr>
<tr><td>3</td><td>IREF</td><td>Reference current input pin.
A resistor should be connected between this pin and VSS.</td></tr>
<tr><td>4~11</td><td>D7~D0</td><td>Data bus.</td></tr>
<tr><td>12</td><td>E/RD#</td><td>Data read operation is initiated when it’s pull low.</td></tr>
<tr><td>13</td><td>R/W#</td><td>Data write operation is initiated when it’s pull low.</td></tr>
<tr><td>14</td><td>D/C#</td><td>Data/ Command control.
Pull high for write/read display data.
Pull low for write command or read status.</td></tr>
<tr><td>15</td><td>RES#</td><td>Reset signal input.
When it’s low, initialization of SSD1305 is executed.</td></tr>
<tr><td>16</td><td>CS#</td><td>Chip select input.</td></tr>
<tr><td>17</td><td>BS2</td><td rowspan="2">Communicating Protocol Select
These pins are MCU interface selection input. See the following table:
<table><tr><td></td><td>BS1</td><td>BS2</td></tr><tr><td>I2C</td><td>1</td><td>0</td></tr><tr><td>4-wire Serial</td><td>0</td><td>0</td></tr><tr><td>8-bit 68XX Parallel</td><td>0</td><td>1</td></tr><tr><td>8-bit 80XX Parallel</td><td>1</td><td>1</td></tr></table>Note
(1) 0 is connected to VSS
(2) 1 is connected to VDD</td></tr>
<tr><td>18</td><td>BS1</td></tr>
<tr><td>19</td><td>VDD</td><td>Power supply for logic circuit.</td></tr>
<tr><td>20</td><td>NC</td><td>No connection.</td></tr>
<tr><td>21</td><td>VSS</td><td>Ground.</td></tr>
<tr><td>22</td><td>VSS</td><td>Ground.</td></tr>
</table>

Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit	Notes
Supply Voltage for Logic	VDD	-0.3	4	V	1, 2
Supply Voltage for Display	VCC	0	15	V	1, 2
Operating Temperature	TOP	-40	+80	°C	-
Storage Temperature	TSTG	-40	+85	°C	-

Note 1: All the above voltages are on the basis of “VSS = 0V”.
Note 2: When this module is used beyond the above absolute maximum ratings, permanent breakage of the module may occur. Also, for normal operations, it is desirable to use this module under the conditions according to Section 6 ‘’Electrical Characteristics’’. If this module is used beyond these conditions, malfunctioning of the module can occur and the reliability of the module may deteriorate

.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	VCC	—	12	13	14	V
High Level Input	VIH	—	0.8×VDD	—	—	V
Low Level Input	VIL	—	—	—	0.2×VDD	V
High Level Output	VOH	—	0.9×VDD	—	—	V
Low Level Output	VOL	—	—	—	0.1×VDD	V
50% Check Board operating Current		VCC =13.0V	—	22	24	mA