WINSTAR Display

OLED SPECIFICATION

Model No:

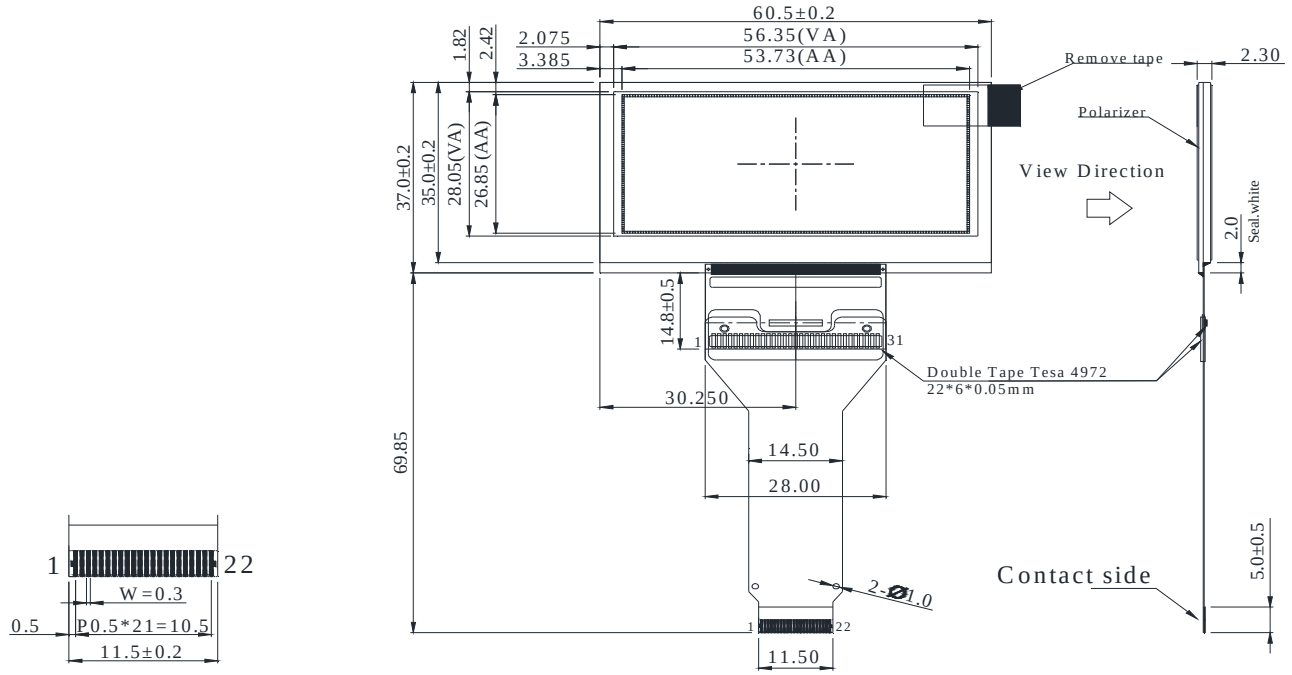
WEX012864F

General Specification

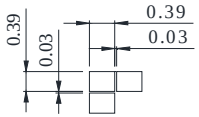
Item	Dimension	Unit
Dot Matrix	128 x 64 Dots	–
Module dimension	60.5 × 37.0 × 2.3	mm
Active Area	53.73 × 26.85	mm
Pixel Size	0.39 × 0.39	mm
Pixel Pitch	0.42 × 0.42	mm
Display Mode	Passive Matrix	
Display Color	Monochrome	
Drive Duty	1/64 Duty	

first FC components

Contour Drawing & Block Diagram



Scale 1:2



Detail DOTS
Scale 1:10

PIN NO.	SYMBOL
1	VCC
2	VCOMH
3	IREF
4	D7
5	D6
6	D5
7	D4
8	D3
9	D2
10	D1
11	D0
12	E/RD#
13	R/W#
14	D/C#
15	RES#
16	CS#
17	BS2
18	BS1
19	VDD
20	NC
21	VSS
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><th></th><th>I2C</th><th>68XX-parallel</th><th>80XX-parallel</th><th>Serial</th></tr>
<tr><td>BS1</td><td>1</td><td>0</td><td>1</td><td>0</td></tr>
<tr><td>BS2</td><td>0</td><td>1</td><td>1</td><td>0</td></tr>
</table></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	℃	-
Storage Temperature	TSTG	-40	+80	℃	-

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

Item	Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage for Logic	VDD	—	2.8	3.0	3.3	V
Supply Voltage for Display	VCC	—	10	12	15	V
High Level Input	VIH	—	0.8×VDD	—	VDD	V
Low Level Input	VIL	—	0	—	0.2×VDD	V
High Level Output	VOH	—	0.9×VDD	—	VDD	V
Low Level Output	VOL	—	0	—	0.1×VDD	V
50% Check Board operating Current		VCC =12V	22	23	25	mA