WINSTAR Display

OLED SPECIFICATION

Model No:

WEO128128W#D0DK-FC

Represented by:

first FC components

FIRST Components srl Via Cavour 69, 21020 Buguggiate (VA)

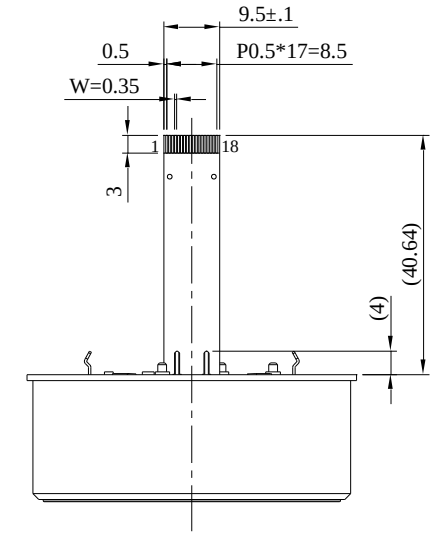
T. +39 0332 1888005 web: www.first-components.com

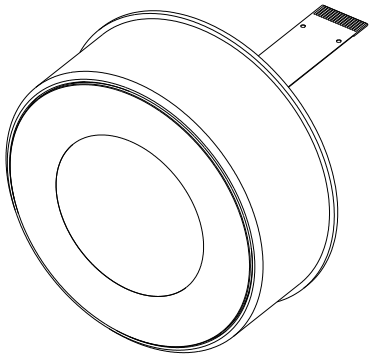
2.General Specification

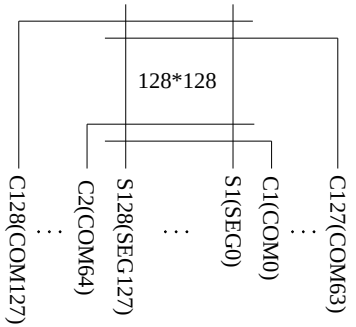
Item	Dimension	Unit
Dot Matrix	128 x 128 Dots	-
Module dimension	Ø 56 x 21.56	mm
Active Area	Ø 30.0	mm
Pixel Size	0.210 x 0.210	mm
Pixel Pitch	0.235 x 0.235	mm
Display Mode	Passive Matrix	
Display Color	White	
Drive Duty	1/128 Duty	
Gray Scale	4 bits	
IC	SSD1327	
Interface	4-line SPI , I2C	
Size	1.18 inch	

CTP IC	IT7259
Detect Point	1
CTP Interface	I2C
CTP Surface Hardness	6H

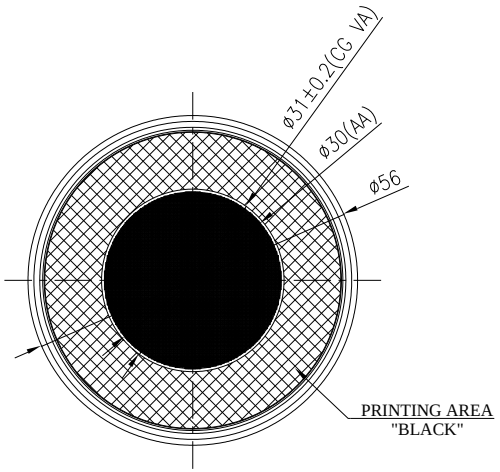
3. Contour Drawing & Block Diagram

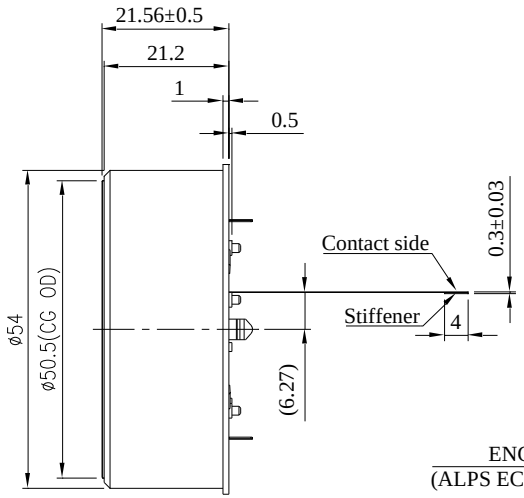


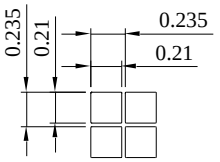




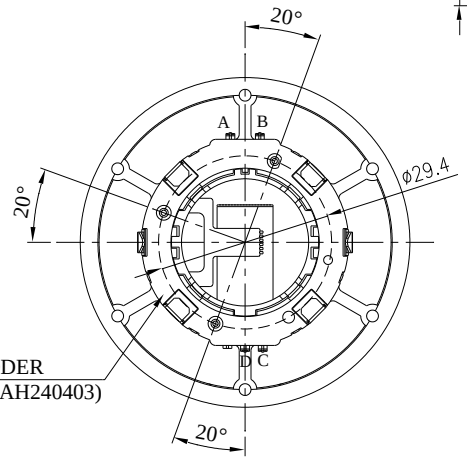
PIN	SYMBOL
1	VSS
2	VCC
3	VCOMH
4	VCI
5	VDD
6	BS1
7	IREF
8	CS#
9	RES#
10	D/C#
11	D0
12	D1
13	D2
14	TP_SCK
15	TP_SDA
16	TP_INT
17	VCC
18	VSS







DOTS SIZE
SCALE 25/1



ENCODER	
PIN	SYMBOL
A	FSW_A
B	FSW_B
C	FSW_C
D	FSW_D

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

4.Interface Pin Function

<table>
<tr><th>No.</th><th>Symbol</th><th>Function</th></tr>
<tr><td>1</td><td>VSS</td><td>Ground pin. It must be connected to external ground.</td></tr>
<tr><td>2</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>
<tr><td>3</td><td>VCOMH</td><td>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.</td></tr>
<tr><td>4</td><td>VCI</td><td>Low voltage power supply and power supply for interface logic level. It should match with the MCU interface voltage level and must be connected to external source.
VCI must always set to be equivalent to or higher than VDD.</td></tr>
<tr><td>5</td><td>VDD</td><td>Power supply pin for core logic operation.</td></tr>
<tr><td>6</td><td>BS1</td><td>MCU bus interface selection pins. Select appropriate logic setting as described in the following table. BS1 is pin select.
Bus Interface selection
<table>
<tr><th>BS1</th><th>Interface</th></tr>
<tr><td>0</td><td>4-line SPI</td></tr>
<tr><td>1</td><td>I2C</td></tr>
</table>
Note (1) 0 is connected to VSS (2) 1 is connected to VCI</td></tr>
<tr><td>7</td><td>IREF</td><td>This pin is the segment output current reference pin</td></tr>
<tr><td>8</td><td>CS#</td><td>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).</td></tr>
<tr><td>9</td><td>RES#</td><td>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.</td></tr>
<tr><td>10</td><td>DC#</td><td>This pin is Data/Command control pin connecting to the MCU.
When the pin is pulled HIGH, will be interpreted as data.
When the pin is pulled LOW, will be transferred to a command register
In I2C mode, this pin acts as SA0 for slave address selection.</td></tr>
<tr><td>11</td><td>D0</td><td rowspan="3">When serial interface mode is selected, D0 will be the serial clock input: SCLK; D1 will be the serial data input: SDIN and D2 should be kept NC.
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.</td></tr>
<tr><td>12</td><td>D1</td></tr>
<tr><td>13</td><td>D2</td></tr>
<tr><td>14</td><td>TP_SCK</td><td>I2C clock signal</td></tr>
<tr><td>15</td><td>TP_SDA</td><td>I2C data signal</td></tr>
<tr><td>16</td><td>TP_INT</td><td>Interrupt signal</td></tr>
<tr><td>17</td><td>VCC</td><td>Power supply for panel driving voltage. This is also the most positive power voltage supply pin.</td></tr>
<tr><td>18</td><td>VSS</td><td>Ground</td></tr>
</table>

Encoder PIN Definition

No.	Symbol	Function
1	FSW_A	Encoder terminal signal-A
2	FSW_B	Encoder terminal signal-B
3	FSW_C	Encoder terminal signal-C
4	FSW_D	Ground

5.Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit	Notes
Supply Voltage for Operation	VCI	-0.3	4.0	V	1, 2
Supply Voltage for Logic	VDD	-0.5	2.75	V	1, 2
Supply Voltage for Display	VCC	-0.5	19.0	V	1, 2
Operating Temperature	TOP	-20	+50	°C	-
Storage Temperature	TSTG	-30	+70	°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 Section6 “Electrical Characteristics”. If this module is used beyond these conditions, malfunctioning of the module can occur and the reliability of the module may deteriorate.