WINSTAR Display

OLED SPECIFICATION

Model No:

WEO12832x#D08-FC

Represented by:

first FC components

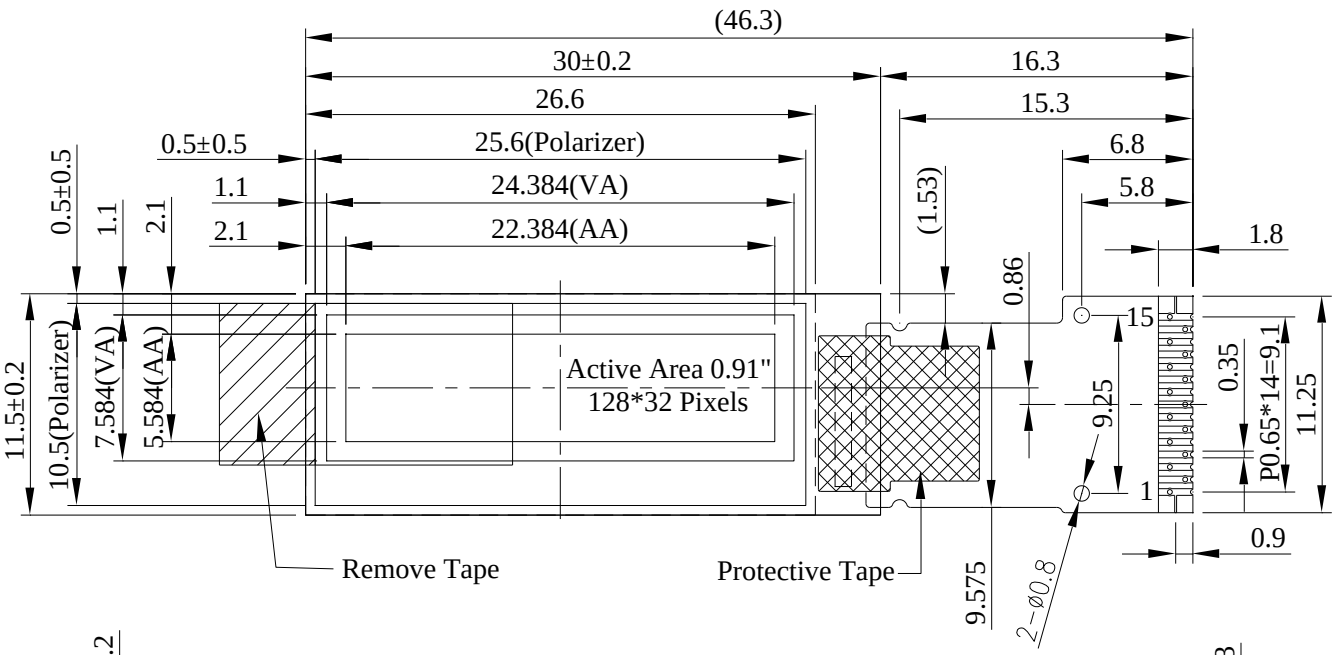
FIRST Components srl Via Cavour 69, 21020 Buguggiate (VA)

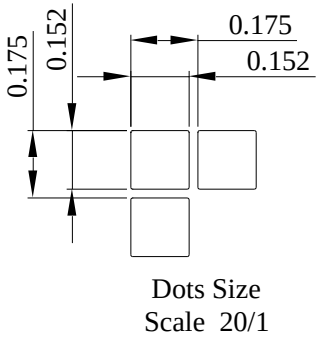
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2.General Specification

Item	Dimension	Unit
Dot Matrix	128 × 32 Dots	—
Module dimension	30.0 × 11.5 × 1.26	mm
Active Area	22.384 × 5.584	mm
Pixel Size	0.152 × 0.152	mm
Pixel Pitch	0.175 × 0.175	mm
Display Mode	Passive Matrix	
Display Color	Monochrome	
Drive Duty	1/32 Duty	
IC	SSD1306BZ	
Interface	4-wire SPI	
Size	0.91 inch	

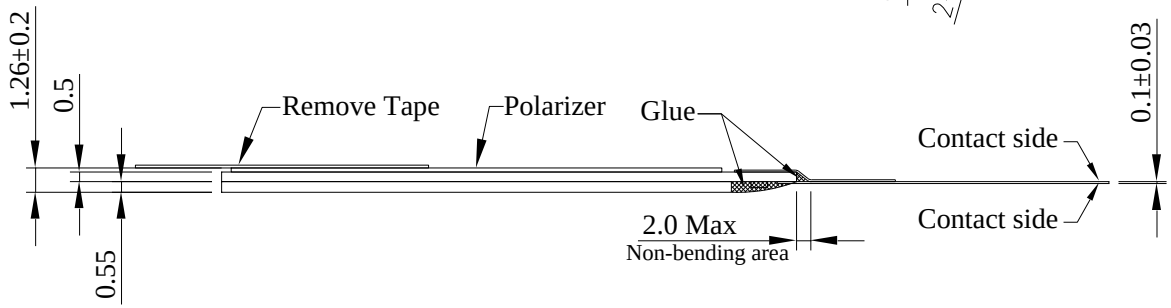
3. Contour Drawing & Block Diagram

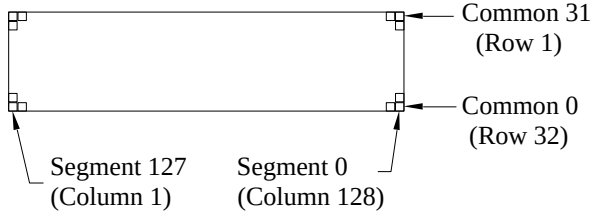




Dots Size
Scale 20/1

PIN	SYMBOL
1	C2P
2	C2N
3	C1P
4	C1N
5	VBAT
6	VSS
7	VDD
8	CS#
9	RES#
10	D/C#
11	SCLK
12	SDIN
13	IREF
14	VCOMH
15	VCC





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

4. Interface Pin Function

No.	Symbol	Function
1	C2P	*Positive Terminal of the Flying Inverting Capacitor Negative Terminal of the Flying Boost Capacitor* The charge-pump capacitors are required between the terminals. They must be floated when the converter is not used.
2	C2N	
3	C1P	
4	C1N	
5	VBAT	*Power Supply for DC/DC Converter Circuit* 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	VSS	*Ground of Logic Circuit* This is a ground pin. It acts as a reference for the logic pins. It must be connected to external ground.
7	VDD	*Power Supply for Logic* This is a voltage supply pin. It must be connected to external source.
8	CS#	*Chip Select* This pin is the chip select input. The chip is enabled for MCU communication only when CS# is pulled low.
9	RES#	*Power Reset for Controller and Driver* This pin is reset signal input. When the pin is low, initialization of the chip is executed.
10	D/C#	*Data/Command Control* This pin is Data/Command control pin.. When the pin is pulled high and serial interface mode is selected, the data at SDIN is treated as data. When it is pulled low, the data at SDIN will be transferred to the command register. In I2C mode, this pin acts as SA0 for slave address selection.
11	SCLK	When serial mode is selected, D1 will be the serial data input SDIN and D0 will be the serial clock input SCLK.
12	SDIN	
13	IREF	*Current Reference for Brightness Adjustment* This pin is segment current reference pin. A resistor should be connected between this pin and VSS. Set the current lower than 12.5μA.
14	VCOMH	*Voltage Output High Level for COM Signal* 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.
15	VCC	*Power Supply for OEL Panel* 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.

5.Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit	Notes
Supply Voltage for Logic	VDD	0	4.0	V	1,2
Supply Voltage for Display	VCC	0	16.0	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.“Optics & Electrical Characteristics”. If this module is used beyond these conditions, malfunctioning of the module can occur and the reliability of the module may deteriorate.

6.Electrical Characteristics

6.1 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	—	7	7.25	8	V
Input High Volt.	VIH	—	0.8×VDD	—	VDDIO	V
Input Low Volt.	VIL	—	0	—	0.2×VDD	V
Output High Volt.	VOH	—	0.9×VDD	—	VDDIO	V
Output Low Volt.	VOL	—	0	—	0.1×VDD	V
Operating Current for VCC (VCC Supplied Externally)	ICC	Vcc =7.25V	—	7	11	mA