WINSTAR Display

OLED SPECIFICATION

Model No:

WEO12832L#SP3N00000-FC

Represented by:

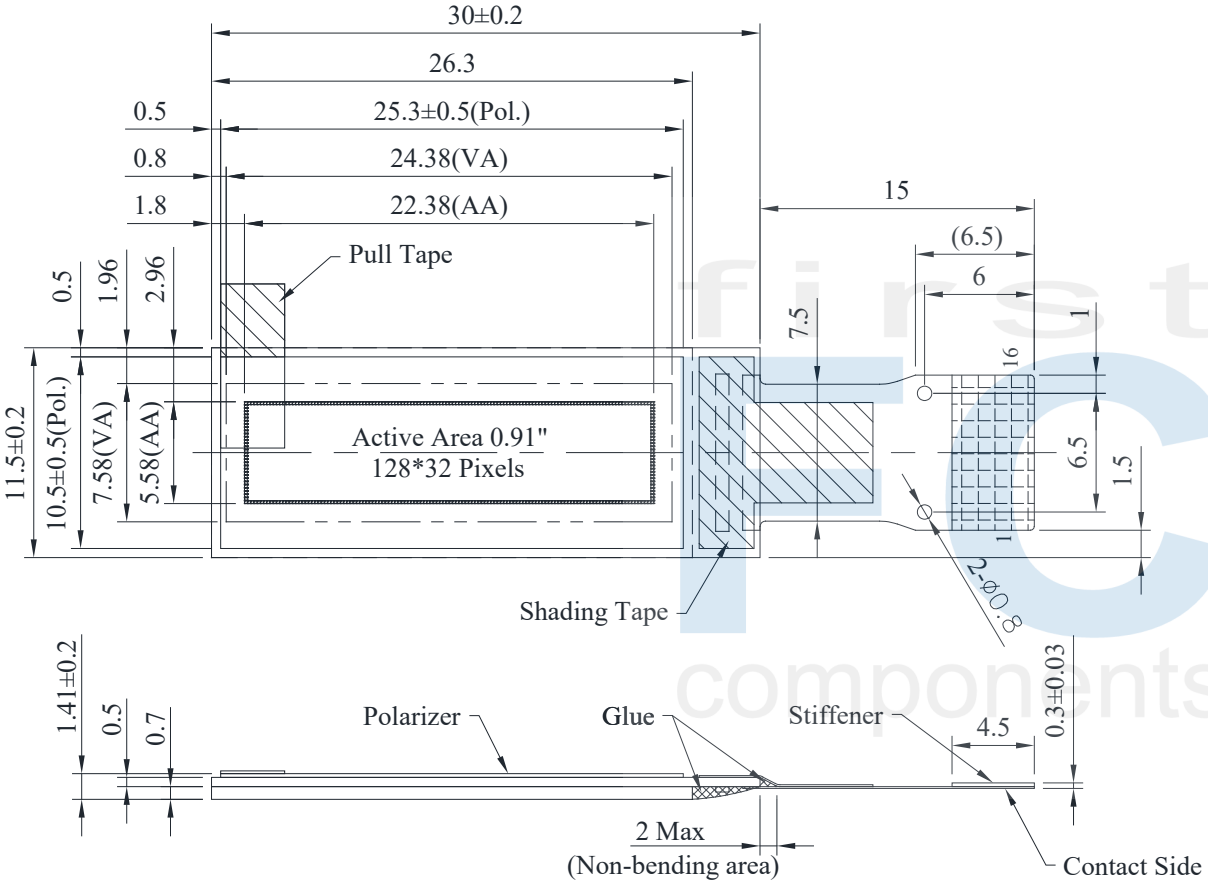
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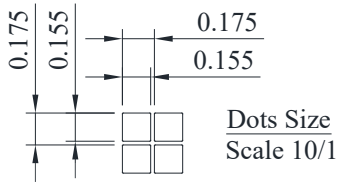
General Specification

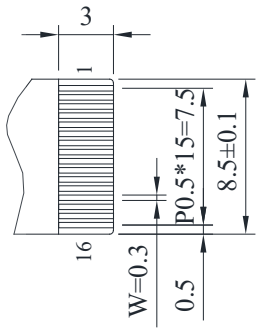
Item	Dimension	Unit
Dot Matrix	128 x 32 Dots	—
Module dimension	30.0 × 11.5 × 1.41	mm
Active Area	22.38 × 5.58	mm
Pixel Size	0.155 × 0.155	mm
Pixel Pitch	0.175 × 0.175	mm
Display Mode	Passive Matrix	
Display Color	Yellow	
Drive Duty	1/32 Duty	
Gray Scale	4 bits	
IC	CH1120	
Interface	4-wire SPI,I2C	
Size	0.91 inch	

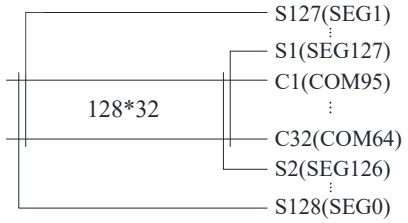
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Contour Drawing & Block Diagram









PIN	SYNBOL
1	ESD_GND
2	VPP
3	VCOMH
4	SEGH
5	VSL
6	VSS
7	VDD
8	RES
9	A0/SA0
10	CS
11	SCL
12	SI
13	IM1
14	IREF
15	DVDD
16	ESD_GND

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

Interface Pin Function

No.	Symbol	Function
1	ESD_GND	This pin should be connected to GND.
2	VPP	OLED panel power supply. Connect to capacitor. It could be supplied externally. This is the most positive voltage supply.
3	VCOMH	This is a pin for the voltage output high level for common signals. A capacitor should be connected between this pin and VSS.
4	SEGH	This is a segment pre-charge voltage. A capacitor can be connected between this pin and GND if necessary. When external capacitor is not used, this pin should be kept NC.
5	VSL	Discharge voltage level pad. This pad should be connected to resistor and diode externally.
6	VSS	Ground for logic and analog. This pin should be connected to GND externally.
7	VDD	Power supply for logic.
8	RES	This is a reset signal input pin. When RES is set to “L”, the settings are initialized. The reset operation is performed by the RES signal level. This pin internal pull high.
9	A0/SA0	This is the Data/Command control pin that determines whether the data bits are data or a command. In I2C interface, this pad serves as SA0 to distinguish the different address of OLED driver.
10	CS	This pin is the chip select input. When CS = “L”, then the chip select becomes active, and data/command I/O is enabled.
11	SCL	The serial clock input.
12	SI	The serial data input.
13	IM1	MCU bus interface selection pins. 4-Wire SPI: IM1 = 0 I2C: IM1 = 1
14	IREF	This is a segment current reference pin. A resistor should be connected between this pin and GND.
15	DVDD	This pin is for regulator circuit. A capacitor should be connected between this pin and GND if necessary. When external capacitor Is not used, this pin should be kept NC
16	ESD_GND	This pin should be connected to GND.

Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Supply Voltage for Logic	VDD	-0.3	3.5	V
Supply Voltage for Display	VPP	-0.3	15.0	V
Operating Temperature	TOP	-40	+80	°C
Storage Temperature	TSTG	-40	+85	°C

Electrical Characteristics

DC Electrical Characteristics

Item	Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage for Logic	VDD	—	1.65	3.0	3.5	V
Supply Voltage for Display	VPP	—	8.0	9.0	9.5	V
Input High Volt.	VIH	—	0.8×VDD	—	VDD	V
Input Low Volt.	VIL	—	VSS	—	0.2×VDD	V
Output High Volt.	VOH	—	0.8×VDD	—	VDD	V
Output Low Volt.	VOL	—	VSS	—	0.2×VDD	V
Display 50% Pixel On	IPP	VPP=9V	—	3	6	mA

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