WINSTAR Display

OLED SPECIFICATION

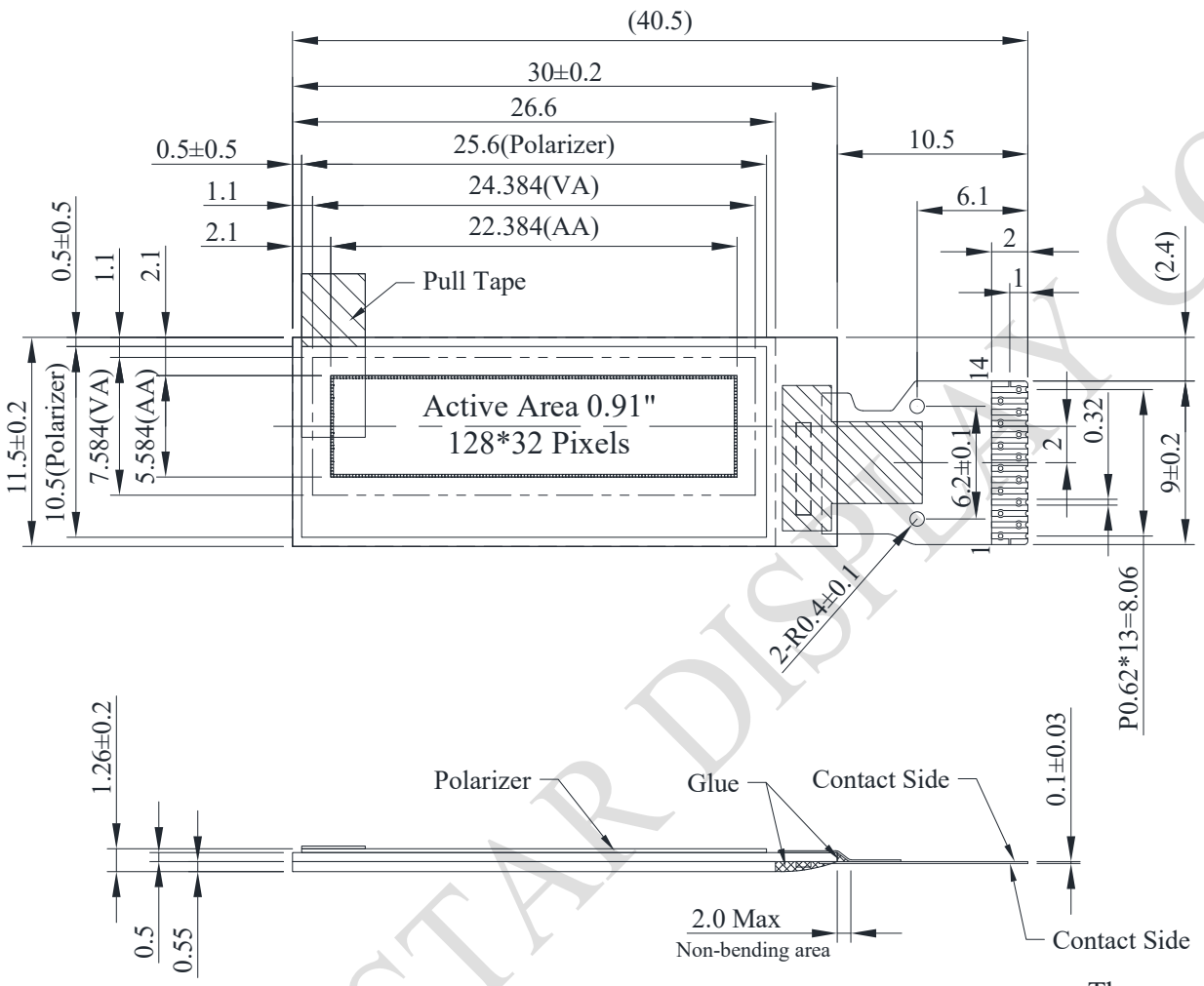
Model No:

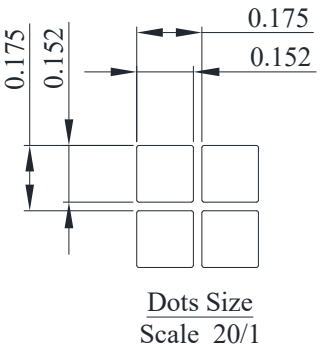
WEO012832R

General Specification

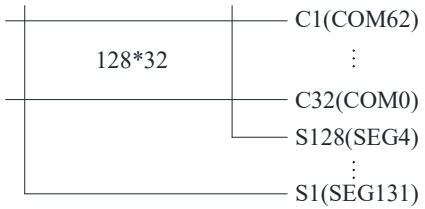
Item	Dimension	Unit
Dot Matrix	128 × 32 Dots	—
Module dimension	30.0 × 11.5 × 1.26	mm
Active Area	22.384 × 5.584	mm
Pixel Size	0.152 × 0.152	mm
Pixel Pitch	0.175 × 0.175	mm
Display Mode	Passive Matrix	
Display Color	Monochrome	
Drive Duty	1/32 Duty	
IC	SH1106	
Interface	I2C	
Size	0.91 inch	

Contour Drawing & Block Diagram





PIN	SYMBOL
1	C1N
2	C1P
3	C2P
4	C2N
5	VDD2
6	NC
7	VSS
8	VDD1
9	RES#
10	SCL
11	SDA
12	IREF
13	VCOMH
14	VPP



Seg&Com Layout

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

Interface Pin Function

No.	Symbol	Function
1	C1N	Connect to charge pump capacitor. These pins are not used and should be disconnected when Vpp is supplied externally.
2	C1P	
3	C2P	
4	C2N	
5	VDD2	Power supply pad for Power supply for charge pump circuit. This pin should be disconnected when VPP is supplied externally
6	NC	No connection
7	VSS	Ground.
8	VDD1	Power supply input
9	RES#	This is a reset signal input pad. When RES is set to “L”, the settings are initialized. The reset operation is performed by the RES signal level.
10	SCL	When the I2C interface is selected, D0 serves as the serial clock input pad (SCL) and D1 serves as the serial data input pad (SDAI).
11	SDA	
12	IREF	This is a segment current reference pad. A resistor should be connected between this pad and VSS. Set the current at 18.75uA.
13	VCOMH	This is a pad for the voltage output high level for common signals. A capacitor should be connected between this pad and VSS.
14	VPP	OLED panel power supply. Generated by internal charge pump. Connect to capacitor. It could be supplied externally.

Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Supply Voltage for Logic	VDD1	-0.3	3.6	V
Power supply for charge pump circuit	VDD2	-0.3	4.8	V
Supply Voltage for Display	VPP	-0.3	14.5	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	VDD1	—	1.65	3.0	3.3	V
Supply Voltage for Display (Supplied Externally)	VPP	—	6.4	7.25	8	V
Charge Pump Regulator Supply Voltage	VDD2	—	2.9	—	4.2	V
Charge Pump Output Voltage for Display (Generated by Internal DC/DC)	Charge Pump VPP	—	7.0	7.4	—	V
Input High Volt.	VIH	—	0.8×VDD1	—	VDD1	V
Input Low Volt.	VIL	—	VSS	—	0.2×VDD1	V
Output High Volt.	VOH	—	0.8×VDD1	—	VDD1	V
Output Low Volt.	VOL	—	VSS	—	0.2×VDD1	V
Operating Current for VPP (VPP Supplied Externally)	IPP	VPP =7.25V	—	8	12	mA
Display 50% Pixel on (VPP Generated by Internal DC/DC)	IDD2	—	—	15	25	mA