RAYSTAR

SPECIFICATION

OLED SPECIFICATION

Model No:

REX012832F

General Specification

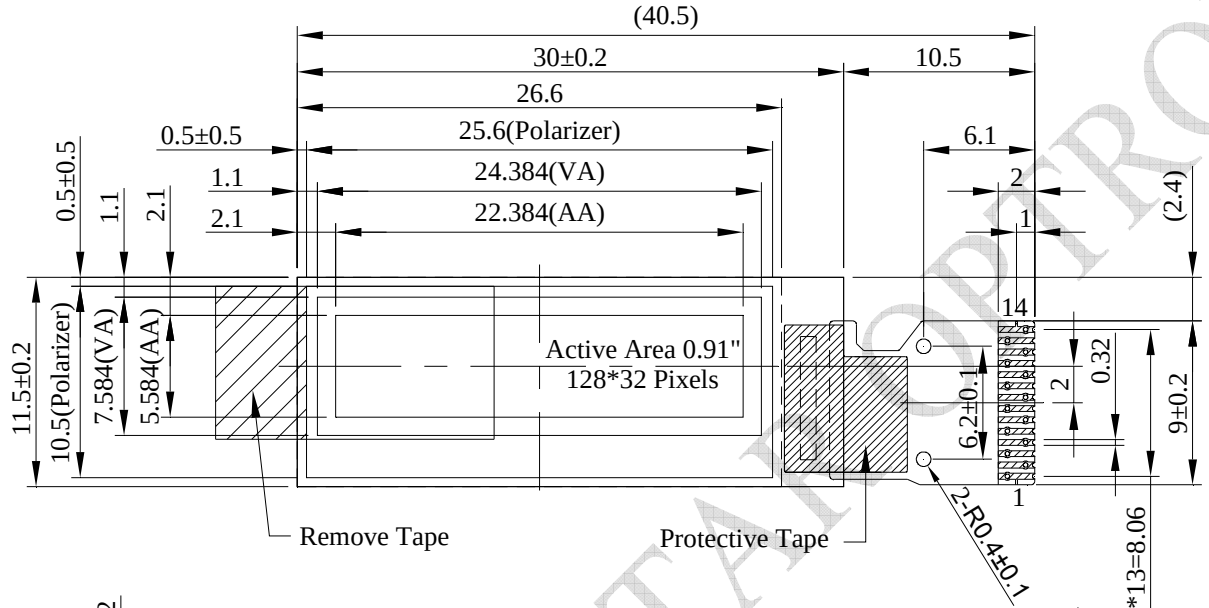
The Features is described as follow:

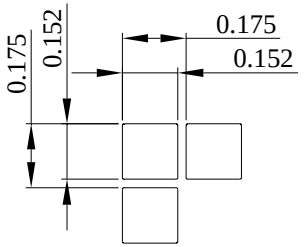
- Module dimension: 30.0 × 11.5 × 1.26 mm
- Active area: 22.384 × 5.584 mm
- Dot Matrix: 128*32
- Pixel size: 0.152 × 0.152 mm
- Pixel pitch: 0.175 × 0.175 mm
- Display Mode：Passive Matrix
- Duty: 1/32 Duty
- Display Color: Monochrome
- IC: SSD1306BZ
- Interface:I2C
- Size:0.91 inch

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	NC	No connection
7	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.
8	VDD	*Power Supply for Logic* This is a voltage supply pin. It must be connected to external source.
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	SCL	*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.*
11	SDA	
12	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.
13	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.
14	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.

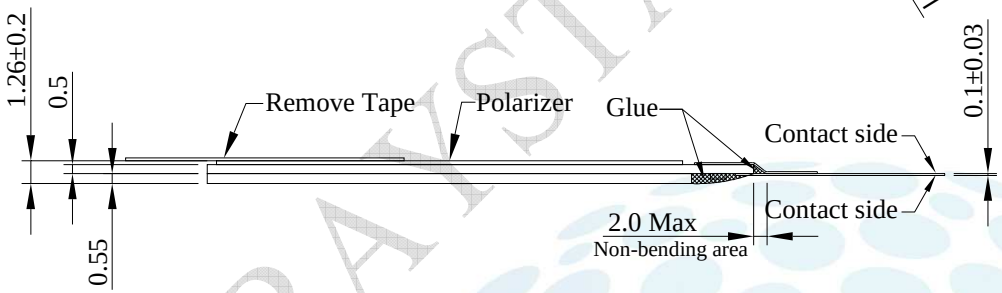
Contour Drawing & Block Diagram

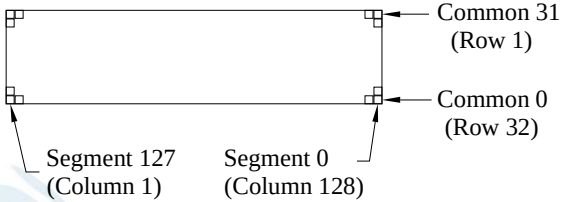




Dots Size
Scale 20/1

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





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

Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Supply Voltage for Logic	VDD	0	4.0	V
Supply Voltage for Display	VCC	0	16.0	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	—	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