OLED DISPLAY SPECIFICATION

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REX012832D

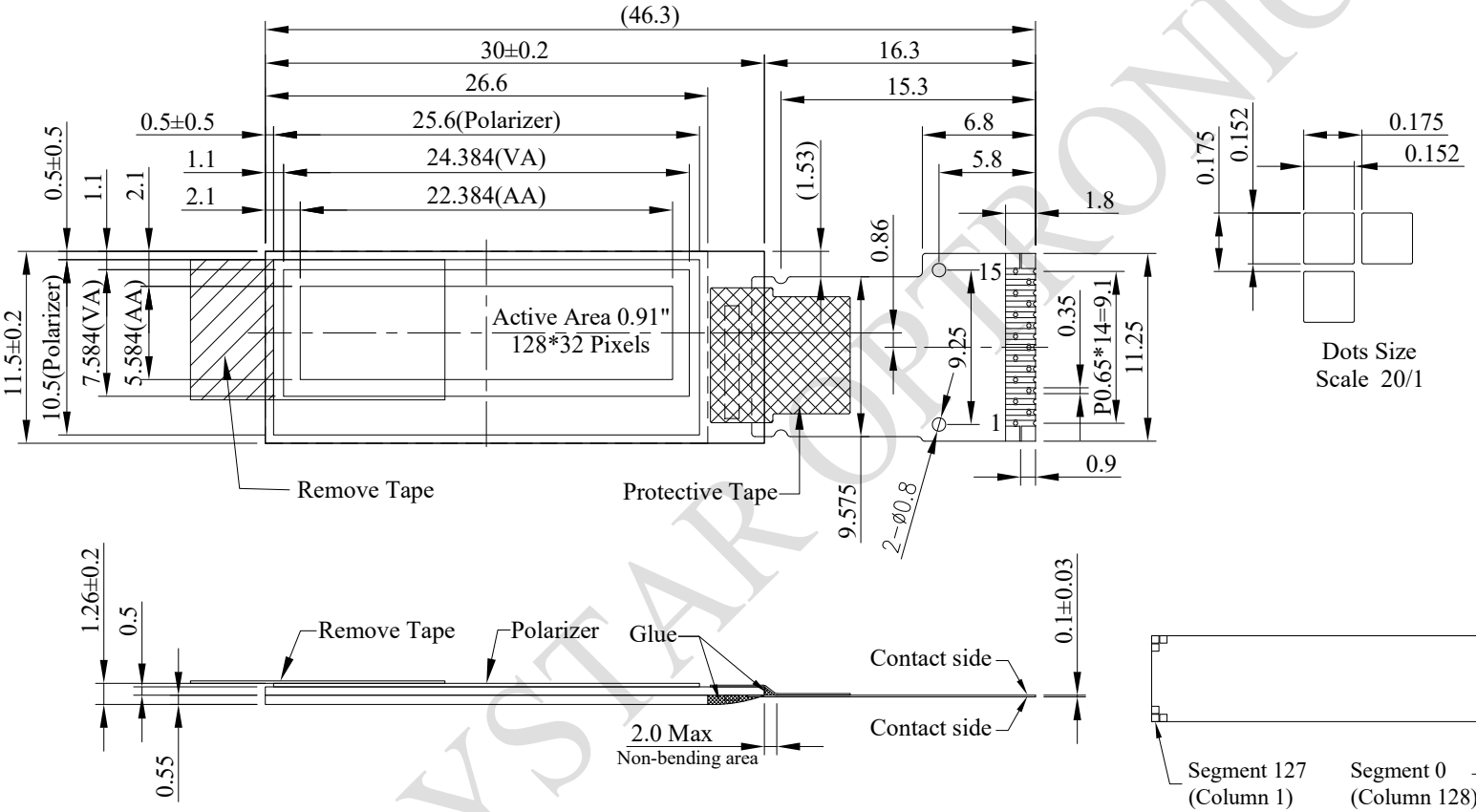
General Specification

- Dot Matrix: 128 x 32 Dots
- Module dimension: 30.0 x 11.5 x 1.26 mm
- Active Area: 22.384 x 5.584 mm
- Pixel Size: 0.152 x 0.152 mm
- Pixel Pitch: 0.175 x 0.175 mm
- Display Mode: Passive Matrix
- Display Color: Monochrome
- Drive Duty: 1/32 Duty
- IC: SSD1306
- Interface: 4-wire SPI
- 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	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.
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 30uA.
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.

Contour Drawing



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.

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 (Supplied Externally)	VCC	—	7	7.25	8	V
Charge Pump Regulator Supply Voltage	VBAT	—	3.0	—	4.2	V
Charge Pump Output Voltage for Display (Generated by Internal DC/DC)	Charge Pump VCC	—	7.0	7.5	—	V
Input High Volt.	VIH	—	0.8×VDD	—	VDD	V
Input Low Volt.	VIL	—	0	—	0.2×VDD	V
Output High Volt.	VOH	—	0.9×VDD	—	VDD	V
Output Low Volt.	VOL	—	0	—	0.1×VDD	V
Operating Current for VCC (VCC Supplied Externally)	ICC	VCC =7.25V	—	7	11	mA
Display 50% Pixel on (VCC Generated by Internal DC/DC)	IBAT	—	—	15	25	mA