RAYSTAR

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SPECIFICATION
Model No:
REX012864V

General Specification

The Features is described as follow:

- Module dimension: 24.74 x 16.90 x 1.26 mm

- Active area: 21.74 x 10.86 mm

- Dot Matrix: 128 x 64

- Dot size: 0.15 x 0.15 mm

- Dot pitch: 0.17 x 0.17 mm

- Display Mode: Passive Matrix

- Duty: 1/64 Duty

- Display Color: OLED , Monochrome

- Controller IC: SSD1315

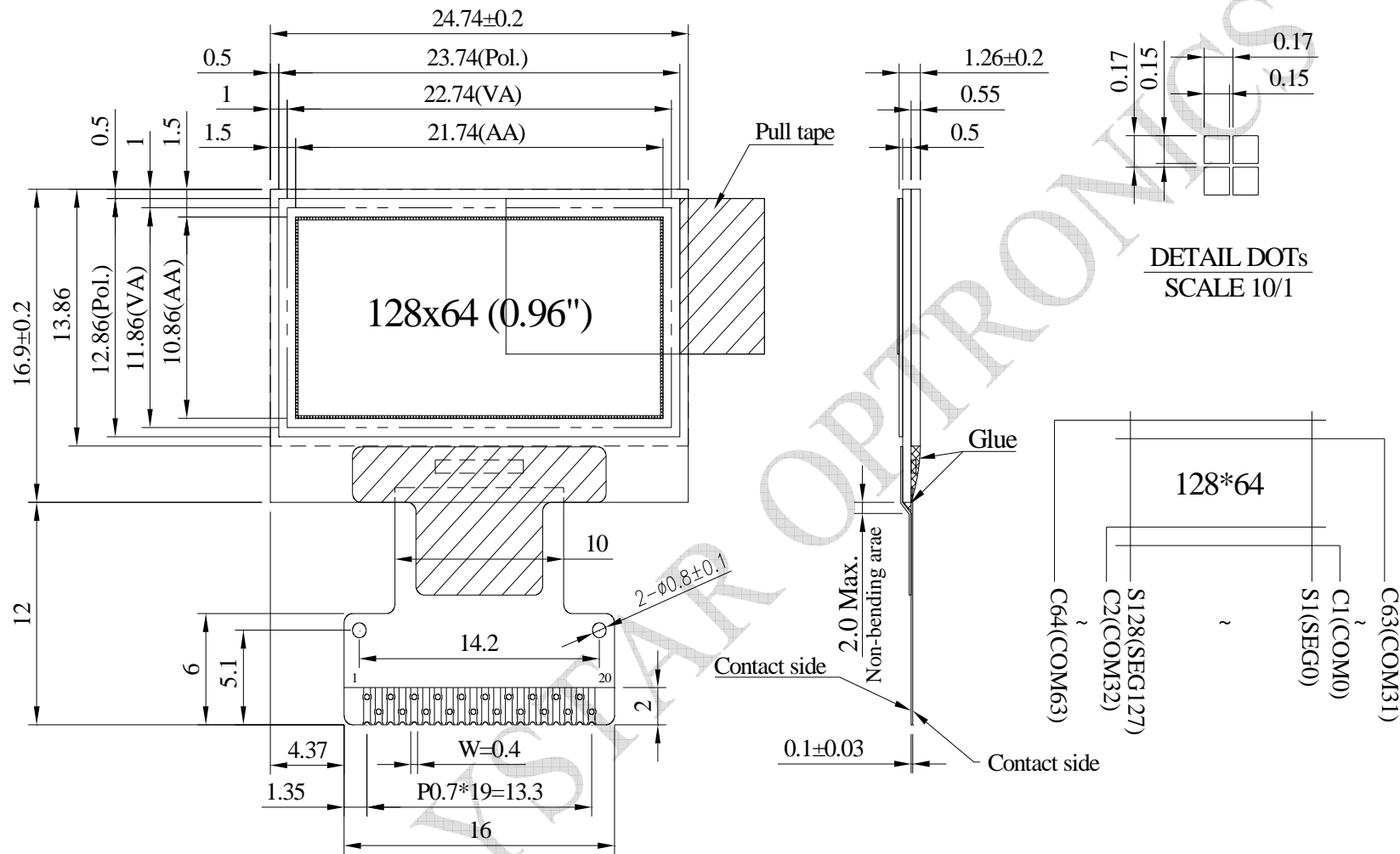- Interface: SPI,I2C

- Size: 0.96 inch

Interface Pin Function

No.	Symbol	Function
1	C2N	C2P/C2N – Pin for charge pump capacitor; Connect to each other with a capacitor.
2	C2P	
3	C1P	C1P/C1N – Pin for charge pump capacitor; Connect to each other with a capacitor.
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 float when the converter is not used.
6	VCC	*Power supply for panel driving voltage. This is also the most positive power voltage supply pin.* *When charge pump is enabled, a capacitor should be connected between this pin and VSS.*
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	BS0	*Communicating Protocol Select* These pins are MCU interface selection input. See the following table:
10	BS1	<table><tr><td>BS[1:0]</td><td>Interface</td></tr><tr><td>00</td><td>4-line SPI</td></tr><tr><td>01</td><td>3-line SPI</td></tr><tr><td>10</td><td>I2C</td></tr></table>
11	CS#	*Chip Select* This pin is the chip select input. The chip is enabled for MCU communication only when CS# is pulled low.
12	RES#	*Power Reset for Controller and Driver* This pin is reset signal input. When the pin is low, initialization of the chip is executed.
13	D/C#	*In I2C mode, this pin acts as SA0 for slave address selection.* *When 3-wire serial interface is selected, this pin must be connected to VSS.*
14~16	D0~D2	*When serial interface mode is selected, D0 will be the serial clock input: SCLK; D1 will be the serial data input: SDIN.* *When 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.*
17	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.

18	VCOMH	*COM signal deselected voltage level.* *A capacitor should be connected between this pin and VSS.*
19	VCC	*Power supply for panel driving voltage. This is also the most positive power voltage supply pin.* *When charge pump is enabled, a capacitor should be connected between this pin and VSS.*
20	VLSS	*Ground of Analog Circuit* This is an analog ground pin. It should be connected to VSS externally.

Contour Drawing & Block Diagram

PIN	SYMBOL
1	C2N
2	C2P
3	C1P
4	C1N
5	VBAT
6	VCC
7	VSS
8	VDD
9	BS0
10	BS1
11	CS#
12	RES#
13	D/C#
14	D0
15	D1
16	D2
17	IREF
18	VCOMH
19	VCC
20	VLSS

128x64 (0.96")

DETAIL DOTs
SCALE 10/1

128*64

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

Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Supply Voltage for Logic	VDD	-0.3	4.0	V
Charge Pump Regulator	VBAT	-0.3	6.0	V
Supply Voltage for Display	VCC	0	18.0	V
Operating Temperature	TOP	-30	+70	°C
Storage Temperature	TSTG	-30	+70	°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	—	7.0	7.5	8.0	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 (50% display ON)	ICC	—	—	6	12	mA