OLED DISPLAY SPECIFICATION





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REX012864AA

General Specification

The features is described as follow:

■ Module Dimension: 42.04 x 27.22 x 1.41 mm

Active Area: 35.05 x 17.51 mm

■ Dot Matrix: 128 x 64

■ Pixel Size: 0.249 x 0.249 mm

■ Pixel Pitch: 0.274 x 0.274 mm

■ Duty: 1/64 Duty

Display Mode: Passive Matrix

Display Color: Monochrome

■ IC: SSD1327

■ Interface: 6800,8080,4-wire SPI,I2C

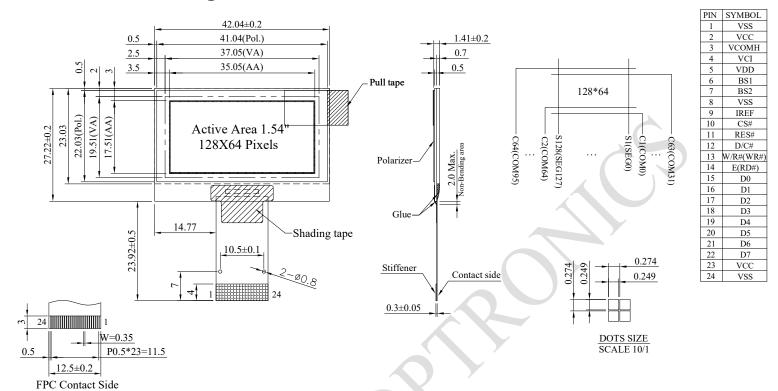
■ Size: 1.54-inch

Interface Pin Function

Symbol	Description								
VSS	This is a ground pin.								
VCC	Power supply for panel driving voltage.								
	COM signal deselected voltage level.								
VCOMH	A capacitor should be connected between this pin and VSS. No external								
	power supply is allowed to connect to this pin.								
	Low voltage power supply and power supply for interface logic level. It								
VCI	should match with the MCU interface voltage level and must be								
VCI	connected to external source.								
	VCI must always set to be equivalent to or higher than VDD.								
	Power supply pin for core logic operation.								
VDD	VDD can be supplied externally (within the range of 2.4V to 2.6V) or								
VDD	regulated internally from VCI. A capacitor should be connected between								
	VDD and VSS under all circumstances.								
BS1	Communicating Protocol Select								
	These pins are MCU interface selection input. See the following table:								
BS2			68XX-p	arallel	80XX-parallel	Serial	I2C		
	BS		0		1	0	1		
	BS2		1		1	0	0		
VSS	This is a ground pin.								
	This pin is the segment output current reference pin.								
9 IREF A resistor should b					be connected between this pin and VSS to maintain the				
current around 10uA.									
CS#	his pin is the chip select input. The chip is enabled for MCU								
/ // // // // // // // // // // // // /	communication only when CS# is pulled low.								
DES#	This pin is reset signal input. When the pin is low, initialization of the chip								
KE9#	s executed.								
	VSS TOUR TOUR TOUR TOUR TOUR TOUR TOUR TOUR	VSS This is a groun VCC Power supply for COM signal dead and a capacitor should match with connected to early VCI with connected to early VDD and VSS BS1 Communicating These pins are selected as a groun to the	VSS This is a ground pin VCC Power supply for poor COM signal deselet A capacitor should power supply is allow voltage power should match with a connected to extern VCI must always see Power supply pin for VDD can be supplify regulated internally VDD and VSS under the VDD and VSS under the VSS This is a ground pin BS1 Communicating Provided BS1 BS2 VSS This is a ground pin This pin is the seground 10 under the CS# CS# This pin is the chip communication only This pin is reset signals.	VSS This is a ground pin. VCC Power supply for panel driv. COM signal deselected vol. A capacitor should be conrepower supply is allowed to be low voltage power supply should match with the MCU connected to external sour VCI must always set to be low vDD can be supplied exter regulated internally from VVDD and VSS under all cir. BS1 Communicating Protocol S These pins are MCU interest are MCU interest as a ground pin. This pin is the segment out A resistor should be connecurrent around 10uA. CS# This pin is the chip select in communication only when This pin is reset signal input	VSS This is a ground pin. VCC Power supply for panel driving volid COM signal deselected voltage level VCOMH A capacitor should be connected be power supply is allowed to connected to power supply is allowed to connected to external source. VCI Low voltage power supply and power should match with the MCU interface connected to external source. VCI must always set to be equivaled by the power supply pin for core logic operation voltage power supply pin for core logic operation. Power supply pin for core logic operation voltage externally (we regulated internally from VCI. A can voltage power supplied externally (we regulated internally from VCI. A can voltage power supply pin for core logic operation. BS1 Communicating Protocol Select These pins are MCU interface sees as a few power supply pin for core logic operation. These pins are MCU interface sees as a few power supply pin for core logic operation. These pins are MCU interface sees as a few power supply pin for core logic operation. These pins are MCU interface sees as a few power supply and power s	VSS This is a ground pin. VCC Power supply for panel driving voltage. COM signal deselected voltage level. VCOMH A capacitor should be connected between this pin power supply is allowed to connect to this pin. Low voltage power supply and power supply for in should match with the MCU interface voltage level connected to external source. VCI must always set to be equivalent to or higher to the connected internally from VCI. A capacitor should be vDD and VSS under all circumstances. BS1 Communicating Protocol Select These pins are MCU interface selection input. Select These pins are MCU interface selection input. Select BS2 68XX-parallel 80XX-parallel BS2 1 1 VSS This is a ground pin. This pin is the segment output current reference pince a current around 10uA. This pin is the chip select input. The chip is enabled communication only when CS# is pulled low. This pin is reset signal input. When the pin is low, in the connected between the pin is low, in the	VSS This is a ground pin. VCC Power supply for panel driving voltage. COM signal deselected voltage level. VCOMH A capacitor should be connected between this pin and VSS. I power supply is allowed to connect to this pin. Low voltage power supply and power supply for interface logishould match with the MCU interface voltage level and must connected to external source. VCI must always set to be equivalent to or higher than VDD. Power supply pin for core logic operation. VDD can be supplied externally (within the range of 2.4V to 2 regulated internally from VCI. A capacitor should be connected VDD and VSS under all circumstances. BS1 Communicating Protocol Select These pins are MCU interface selection input. See the follow BS2 1 1 0 0 VSS This is a ground pin. This pin is the segment output current reference pin. IREF A resistor should be connected between this pin and VSS to current around 10uA. This pin is the chip select input. The chip is enabled for MCU communication only when CS# is pulled low. This pin is reset signal input. When the pin is low, initialization.		

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12 D/		This pin is Data/Command control pin connecting to the MCU.
		When the pin is pulled HIGH, the data at D[7:0] will be interpreted as
	D/C#	data.
	D/C#	When the pin is pulled LOW, the data at D[7:0] will be transferred to a
		command register.
		In I2C mode, this pin acts as SA0 for slave address selection.
		This pin is read / write control input pin connecting to the MCU interface.
		When 6800 interface mode is selected, this pin will be used as
		Read/Write (R/W#) selection input. Read mode will be carried out when
		this pin is pulled HIGH and write mode when LOW.
13	R/W#	When 8080 interface mode is selected, this pin will be the Write (WR#)
	(WR#)	input. Data write operation is initiated when this pin is pulled LOW and the
		chip is selected.
		When serial or I2C interface is selected, this pin must be connected to
		VSS.
		This pin is MCU interface input.
		When 6800 interface mode is selected, this pin will be used as the Enable
		(E) signal.
		Read/write operation is initiated when this pin is pulled HIGH and the chip
		is selected.
14	E/RD#	When 8080 interface mode is selected, this pin receives the Read (RD#)
		signal. Read operation is initiated when this pin is pulled LOW and the
		chip is selected.
		When serial or I2C interface is selected, this pin must be connected to
		VSS.
15	D0	7-3
16	D1	<u> </u>
17	D2	These pins are 8-bit bi-directional data bus to be connected to the
18 19	D3 D4	microprocessor's data bus. When serial mode is selected, D1 will be the
20	D5	serial data input SDIN and D0 will be the serial clock input SCLK.
21 22	D6 D7	
23	VCC	Power supply for panel driving voltage.
24	VSS	This is a ground pin.
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Contour Drawing



Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Low Voltage Power Supply, Power Supply for I/O Pins	VCI	-0.3	4.0	V
Supply Voltage for Logic	VDD	-0.5	2.75	V
Supply Voltage for Display	VCC	-0.5	19.0	V
Operating Temperature	TOP	-40	+80	°C
Storage Temperature	TSTG	-40	+85	°C

Electrical Characteristics

DC Electrical Characteristics

Item	Symbol	Condition	Min	Тур	Max	Unit
Low Voltage Power Supply, Power Supply for I/O Pins	VCI	_	1.65	3.0	3.5	V
Supply Voltage for Display	VCC	> -	8.0	12.5	13.0	V
Supply Voltage for Logic	VDD	_	1.65	_	2.6	V
High Level Input	VIH	_	0.8×VCI	_	VCI	V
Low Level Input	VIL	_	0	_	0.2×VCI	V
High Level Output	VOH	_	0.9×VCI	_	VCI	V
Low Level Output	VOL	_	0	_	0.1×VCI	V
50% Check Board Operating Current	ICC	VCC =12.5V	_	10	20	mA