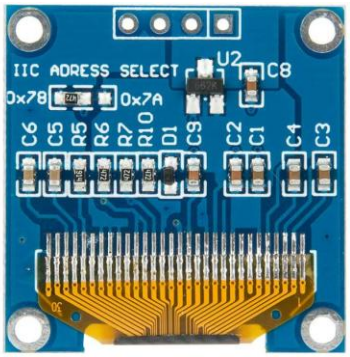
# OLED 4 Pin 128x64 Display Module 0.96” Blue Color


In contrast to LCD technology, Organic Light-Emitting Diode (OLED) displays do not require a backlight and are regarded as the ultimate technology for the next generation of flat-panel displays.

OLED displays are composed of a thin, multi-layered organic film placed between an anode and cathode, which are made up of electric conductive transparent Indium Tin Oxide.

The multi-layered organic film includes a Hole Transporting Layer, Emission Layer and Electron Transporting Layer.

By applying an appropriate electrical voltage, the holes and electrons are injected into the Emission Layer from the anode and cathode respectively and combine to form excitons, after which electroluminescence occurs.

This 0.96” 128*64 Blue OLED Module offers 128*64-pixel resolution. They are featuring much less thickness than LCD Displays with good brightness and produce better and true colors.

This OLED Display Module is very compact and will add a great ever user interface experience to your Arduino project. The connection of this display with Arduino is made through the I2C (also called as IIC) serial interface.

The 0.96” 4 pin 128*64 Blue OLED Display Module produces blue text on black background with very good contrast when supplied with 3.3V-5V Supply. The OLED Display Modules also offers a very wide viewing angle.

**FEATURES:**

- Supply voltage: 3.3V-5V
- Pixel: 128*64
- Display size- 0.96 inch
- Operating temperature range: -40ºC - +80ºC
- Use I2C Interface
- Chip No: SSD1306
- Color: Blue
- Drive Duty: 1/64 Duty
- Only need 2 I/O port to control

- Supported platforms: For Arduino,51 series, MSP430 series, STIM32/2, SCR chips
- Super high contrast and brightness(adjustable)
- Low power consumption
- High contrast, thus supporting clear display with no need of backlight
- For OLED SSD1306, a more elaborate and beautiful screen than LCD with more functions

**PIN DESCRIPTION:**

| Pin No. | Pin Name | Description |
|---|---|---|
| 1. | Supply Voltage ( Vcc, 5V) | Can be powered by either 3.3V or 5V |
| 2. | Ground (GND) | Pin Ground |
| 3. | Serial Clock(SCL) | Pin SCL of I2C interface |
| 4. | Serial Data(SDA) | Pin SDA of I2C interface |

**MECHANICAL SPECIFICATIONS:**

| ITEM | NORMAL DIMENSION |
|---|---|
| Module Dimension | 27.30*27.30*2.37 |
| Active Area | 21.74*10.86 |
| Pixel Size | 0.148*0.148 |
| Pixel Pitch | 0.17*0.17 |

**ABSOLUTE MAXIMUM RATING:**

| PARAMETER | SYMBOL | MIN | MAX | UNIT |
|---|---|---|---|---|
| Supply voltage for logic | VCC | 1.65 | 5.5 | V |
| Operating temperature | TOP | -40 | +80 | ºC |
| Storage temperature | TSTG | -40 | +80 | ºC |

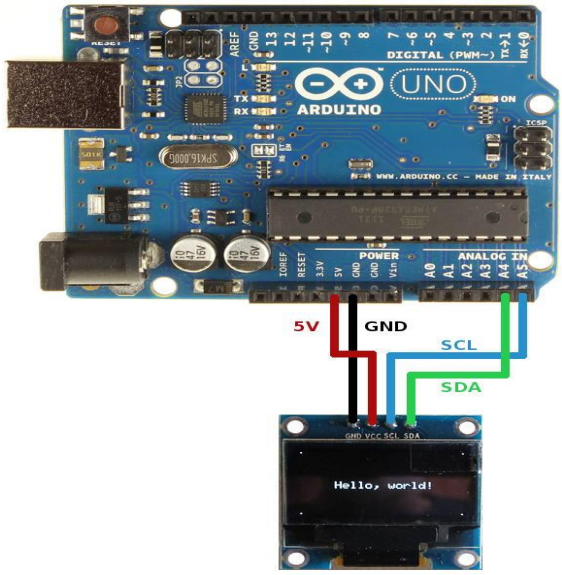
**ELECTRONICAL CHARACTERISTICS:**

| ITEM | SYMBOL | CONDITION | MIN | TYP | MAX | UNIT |
|---|---|---|---|---|---|---|
| Supply voltage for logic | VCC | ------ | 2.8 | 3.3 | 5.2 | V |
| Input high voltage | VIH | ------ | 0.8*VCC | ----- | VCC | V |
| Input low voltage | VIL | ------ | 0 | ----- | 0.2*VCC | V |
| Output high voltage | VOH | ------ | 0.9*VCC | ----- | VCC | V |
| Output low voltage | VOL | ------ | 0 | ----- | 0.1*VCC | V |
| 50%check board operating current | ICC | VCC=3.3 | ------ | 12.0 | 20.0 | mA |

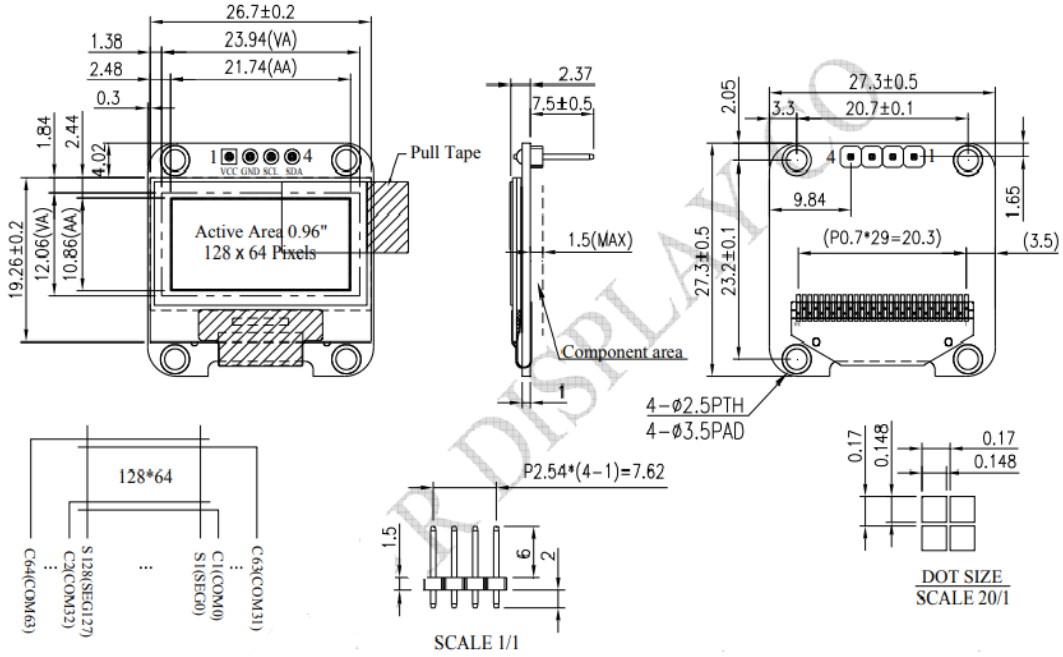
**CONNECTION DIAGRAM OF ARDUINO UNO TO 4 PIN 0.96 INCH I2C OLED DISPLAY TO ARDUINO UNO:**

Arduino Uno OLED Wiring
The image below shows how to connect the 0.96inch OLED I2C display to Arduino. Pin connections are as follows for wiring the OLED display to an Arduino Uno.

- OLED GND – Arduino GND
- OLED VCC – Arduino 5V
- OLED SCL – Arduino Uno A5
- OLED SDA – Arduino Uno A4



**OUTER DIMENSION:**




**APPLICATIONS:**

Due to its capability in displaying, it is often used in various application for instances, smart watch, MP3, function cellphone, portable health device and many others.