0.96 Inch 128x64 Yellow Blue OLED Display

MODULE: UCT-602602

INTRODUCTION

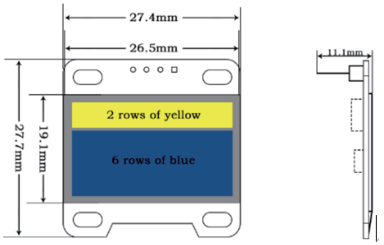
This display module is designed with 0.96 inch yellow and blue OLED display. The highlight of OLED display is that it is a self light-emitting technology that does not require additional back-light. There for it is suited for low power and wearable devices. The resolution of the module is 128x64 pixels, user can access each pixel through build-in controller SSD1306 with a low pin count I2C interface.

PRINCIPLE OF OLED EMIT LIGHT

OLED (Organic Light-Emitting Diode) is a self-light emitting technology composed of a thin, multi-layered organic film placed between an anode and cathode. In contrast to LCD technology, OLED does not require a backlight. OLED's basic structure consists of organic materials between the cathode and the anode, which is composed of conductive transparent indium tin oxide (ITO). The organic material forms a multilayer film comprising a hole transport layer (HTL), an emissive layer (EML), and an electron transport layer (ETL). By applying the appropriate voltage, holes and electrons are injected from the anode and cathode into the EML respectively. Hole and electrons are incorporated into the EML to form excitons, after which electroluminescence occurs.

SPECIFICATION

Size: 0.96"	Driver IC: SSD1306
High resolution: 128 x 64	Viewing angle: > 160 °
Voltage: 3.3V – 5V DC	Working Temperature: -30°C – 70°C
OLED self-luminous, no backlight	Module Size: 27MM x 27MM x 4MM
Ultra-low power consumption: 0.04W during normal operation	Communication: I2C/IIC Interface, only need two I/O ports.
Supports many chips: Arduino UNO and Mega, Raspberry pi, 51 Series, STM 32, etc.	No embedded fonts inside the LCD controller, user can create the fonts through the font generation software.



DISPLAY SCREEN

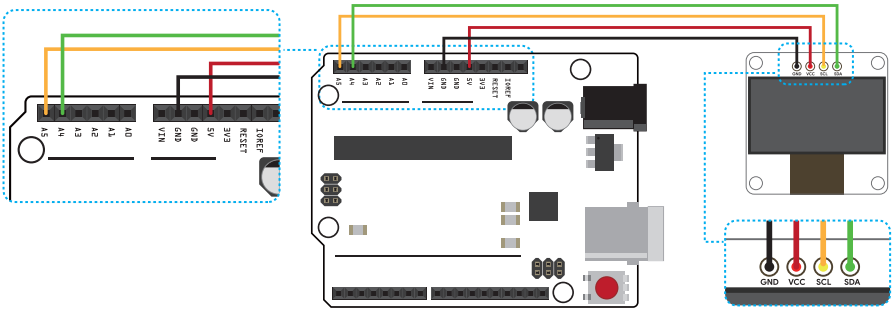
Be careful with the fragile screen when installing. It is made of glass.

PIXEL VALUES

Pixel values are either 1 or 0. The screen is made up of 8 rows of "pages" that are each 8 pixels high, giving a total of 64 rows of pixels. There are 2 sections of pages on the screen. The top section contains 2 pages of yellow (value 1) or black (value 0). The bottom section contains 6 pages that are blue (value 1) or black (value 0). There is a black horizontal line that separates the top 2 pages from the 6 bottom pages.

INTERFACE

GND: Ground
VCC: 3.3V – 5V
SCL: I2C Serial Clock (UNO: A5; MEGA: 21)
SDA: I2C Serial Data (UNO: A4; MEGA: 20)



NOTE

OLED module I2C slave address is set with 8bit address 0x78 (7bit address is 0x3C) by default. User can change the I2C slave address to 8bit address 0x7A (7bit address is 0x3D) if needed.

APPLICATIONS

MP3, MP4, watch,
Head-mounted displays
Meters and other intelligent instruments
Design any pretty patterns for your beloved electronic devices!

SOFTWARE LIBRARY

https://github.com/supprot/ArducamSSD1306

UCTRONICS

If need any further support, please feel free to contact us.
Website: http://www.uctronics.com
Email: support@uctronics.com