

JESSINIE 1.8 Inch TFT LCD Screen Display Module

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Model: 1.8 Inch TFT LCD Screen Display Module

INTRODUCTION

This manual provides essential information for the proper setup, operation, and maintenance of your JESSINIE 1.8 Inch TFT LCD Screen Display Module. This module is designed for integration with microcontrollers like Arduino, offering a compact and vibrant display solution for various electronic projects.

PRODUCT FEATURES

- **Display Size:** 1.8-inch TFT LCD screen.
- **Resolution:** 128RGB*160 Dot-matrix for clear visuals.
- **Driver Chip:** ST7735S for reliable operation.
- **Interface:** SPI-4wire for easy communication.
- **Color Depth:** Full-color display capabilities.
- **Operating Voltage:** 3.3V.
- **Current Consumption:** Approximately 30mA.
- **Pin Layout:** 8-pin header with 2.54mm pitch for convenient connectivity.
- **Dimensions:** 35.00mm (W) x 56mm (H) x 3.45mm (D).
- **Display Area:** 28.03mm (W) x 35.04mm (H).
- **Pixel Size:** 0.219mm (W) x 0.219mm (H).
- **Viewing Angle:** Wide viewing angle (12 o'clock direction).
- **Operating Temperature:** -20°C to 70°C.

SPECIFICATIONS

Feature	Detail
Brand	JESSINIE

Feature	Detail
Model Name	JESSINIE LCD Screen
Connectivity Technology	SPI-4wire
Compatible Devices	Arduino Uno, Arduino Mega, Arduino Nano, etc.
Item Dimensions (L x W x H)	2.2" x 1.38" x 0.14" (56mm x 35mm x 3.45mm)
Manufacturer	JESSINIE

PINOUT DESCRIPTION

The module features an 8-pin header for connection to your microcontroller. Understanding each pin's function is crucial for correct wiring.

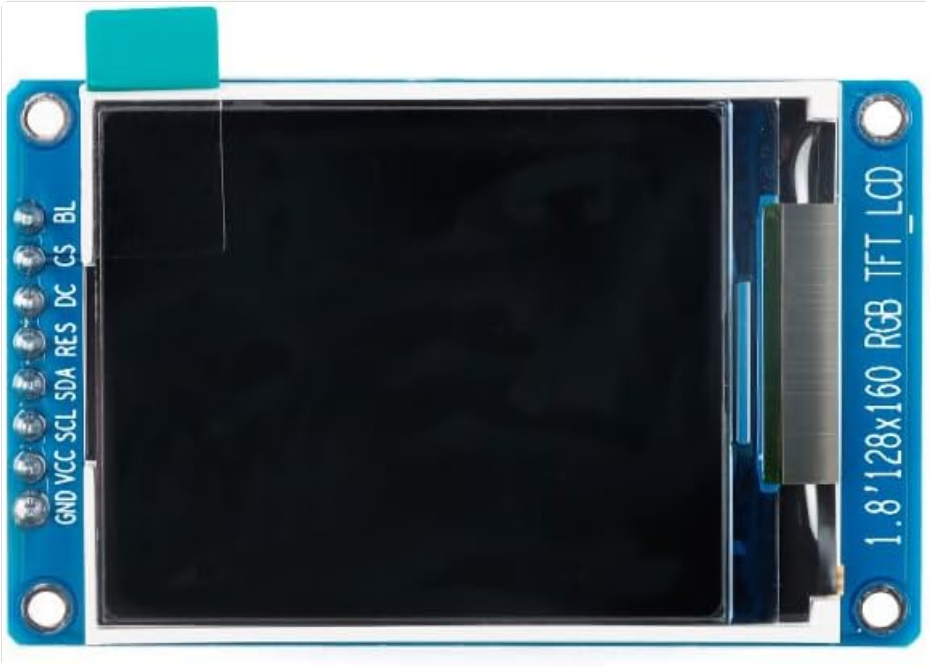


Figure 1: Front view of the 1.8-inch TFT LCD module, showing the display and pin headers.

- **GND:** Ground connection. Connect to the ground (0V) of your microcontroller.
- **VCC:** Power supply input. Connect to 3.3V from your microcontroller.
- **SCL:** Serial Clock. SPI clock signal.
- **SDA:** Serial Data. SPI data input/output (MOSI).
- **RES:** Reset. Connect to a digital pin on your microcontroller for hardware reset.
- **DC:** Data/Command. Selects between data and command mode.
- **CS:** Chip Select. Active low signal to enable communication with the display.
- **BL:** Backlight. Controls the display backlight. Typically connected to 3.3V or a PWM pin for brightness control.



Figure 2: Back view of the LCD module, showing the ST7735 driver IC and circuit board.

SETUP

1. Hardware Connection

Connect the LCD module to your Arduino board using the following typical wiring scheme. Ensure your Arduino operates at 3.3V logic levels or use a logic level shifter if using a 5V Arduino to prevent damage.

- **GND** → Arduino GND
- **VCC** → Arduino 3.3V
- **SCL** → Arduino SPI Clock Pin (e.g., D13 for Uno, D18 for Mega)
- **SDA** → Arduino SPI MOSI Pin (e.g., D11 for Uno, D51 for Mega)
- **RES** → Arduino Digital Pin (e.g., D9)
- **DC** → Arduino Digital Pin (e.g., D8)
- **CS** → Arduino Digital Pin (e.g., D10)
- **BL** → Arduino 3.3V (for full brightness) or a PWM pin for control.

2. Software Setup (Arduino IDE)

1. **Install Arduino IDE:** If not already installed, download and install the Arduino IDE from the official Arduino website.
2. **Install Libraries:** This module typically uses the Adafruit ST7735 and Adafruit GFX libraries.
 - Open Arduino IDE.
 - Go to Sketch > Include Library > Manage Libraries...
 - Search for "Adafruit ST7735" and install it.
 - Search for "Adafruit GFX" and install it.
3. **Load Example Sketch:** Navigate to File > Examples > Adafruit ST7735 > graphicstest This example sketch demonstrates various display functions.
4. **Configure Pins:** In the example sketch, modify the pin definitions to match your wiring. For example:

```
#define TFT_CS 10
#define TFT_DC 8
#define TFT_RST 9 // Or set to -1 and connect to Arduino RESET pin
```
5. **Select Board and Port:** Choose your Arduino board (e.g., Arduino Uno) and the correct COM port from Tools > Board and Tools > Port.
6. **Upload Sketch:** Click the "Upload" button to compile and upload the sketch to your Arduino.

OPERATING INSTRUCTIONS

Once the module is correctly wired and the software is uploaded, the display will execute the commands from your Arduino sketch. The Adafruit GFX library provides a rich set of functions for drawing pixels, lines, circles, rectangles, text, and images.

Basic Display Functions:

- `tft.initR(INITR_GREENTAB);` Initializes the display (use appropriate tab color for your module, e.g., `INITR_BLACKTAB`, `INITR_REDTAB`).
- `tft.setRotation(1);` Sets the display orientation (0-3).
- `tft.fillScreen(ST7735_BLACK);` Fills the entire screen with a specified color.
- `tft.drawPixel(x, y, color);` Draws a single pixel.
- `tft.setTextWrap(false);` Prevents text from wrapping.
- `tft.setTextColor(ST7735_WHITE);` Sets text color.
- `tft.setTextSize(1);` Sets text size.
- `tft.setCursor(0, 0);` Sets the cursor position for text.
- `tft.print("Hello World!");` Prints text to the display.

Refer to the Adafruit ST7735 and Adafruit GFX library documentation and examples for advanced usage and more detailed function descriptions.

MAINTENANCE

- **Cleaning:** Gently wipe the screen surface with a soft, dry, lint-free cloth. Avoid using abrasive cleaners or solvents.
- **Handling:** Handle the module by its edges to avoid touching the display area or damaging components on the PCB.
- **Storage:** Store the module in a dry, anti-static environment, away from direct sunlight and extreme temperatures.
- **Power:** Always ensure the correct 3.3V power supply is used. Over-voltage can permanently damage the module.

TROUBLESHOOTING

- **Blank Screen:**

- Check all wiring connections, especially VCC, GND, CS, DC, RES, SCL, and SDA.
- Ensure the backlight (BL pin) is connected to 3.3V or a configured PWM pin.
- Verify that the correct libraries (Adafruit ST7735, Adafruit GFX) are installed and included in your sketch.
- Confirm the correct pin definitions in your Arduino sketch match your physical wiring.
- Check if the tft.initR() function is called with the correct display type (e.g., INITR_GREENTAB).

- **Incorrect Colors or Distorted Display:**

- Ensure the correct initialization sequence is used for your specific ST7735 variant. Some modules might require different initialization parameters.
- Verify SPI connections (SCL, SDA) are secure and not swapped.
- Check for proper power supply (3.3V).

- **No Communication:**

- Double-check SPI pin assignments (SCL, SDA, CS, DC, RES).
- Ensure your microcontroller's SPI hardware is correctly configured or that software SPI is used if necessary.
- Confirm the module is receiving power (VCC and GND).

- **Code Compilation Errors:**

- Ensure all required libraries are installed and updated.
- Check for typos in your code, especially pin definitions and function calls.

WARRANTY AND SUPPORT

For warranty information, technical support, or further assistance, please refer to the product listing on the retailer's website or contact JESSINIE customer service directly. Keep your purchase receipt for any warranty claims.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question