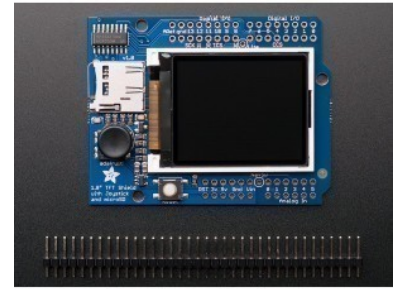




PRODUCT NAME : Adafruit 1.8" Color TFT Shield w/microSD and Joystick

PRICE : Rs 3,999.00

SKU : RM3250



DESCRIPTION

- This lovely little shield is the best way to add a small, colorful and bright display to any project. We took our popular 1.8" TFT breakout board and remixed it into an Arduino shield complete with microSD card slot and a 5-way joystick navigation switch (with a nice plastic knob)! Since the display uses only 4 pins to communicate and has its own pixel-addressable frame buffer, it can be used easily to add a display & interface without exhausting the memory or pins.

The 1.8" display has 128x160 color pixels. Unlike the low cost "Nokia 6110" and similar LCD displays, which are CSTN type and thus have poor color and slow refresh, this display is a true TFT! The TFT driver (ST7735R) can display full 18-bit color (262,144 shades!).

The shield has the TFT display soldered on (it uses a delicate flex-circuit connector) as well as an ultra-low-dropout 3.3V regulator and a 3/5V level shifter so it's safe to use with 5V Arduinos. We also had some space left over so we placed a microSD card holder (so you can easily load full color bitmaps from a FAT16/FAT32 formatted microSD card) and a 5-way navigation switch (left, right, up, down, select). The microSD card is not included,

If you just want to display text, shapes, lines, pixels, etc the shield uses pins 13, 11, 10 and 8. If you'd like to add the navigation switch, it uses Analog 3 (all 5 switches are connected using a clever resistor trick to permit all the switches to share one analog pin). For the microSD card, you'll also give up Digital 12 and 4. This shield works best with the Arduino UNO and compatibles. You can use it with the Mega but it won't be as fast since it would be using software rather than hardware SPI for both the TFT and SD card, so it's not recommended.

Comes as a fully assembled and tested shield with the display, microSD card holder and nav switch with knob as well as a stick of 0.1" header. To finish up and use, you will need to solder on the header onto the shield PCB, a quick 10 minute task.

Of course, we wouldn't just leave you with a datasheet and a "good luck!" - [we've written a full open source graphics library that can draw pixels, lines, rectangles, circles, text and bitmaps as well as example code and a wiring tutorial](#). The code is written for Arduino but can be easily ported to your favorite microcontroller!

TECHNICAL DETAILS

Specifications:

- 1.8" diagonal LCD TFT display
 - Physical dimensions: 2.71" (69mm) width, 2.1" (53.5mm) height, 0.27" (6.94mm) thickness (top of joystick)
 - 128x160 resolution, 18-bit (262,144) color
 - [ST7735R \(datasheet\)](#) controller with built in pixel-addressable video RAM buffer
 - 4 wire SPI digital interface
 - Built-in microSD slot - uses 2 more digital lines
 - 5V compatible! Use with 3.3V or 5V logic Arduinos
 - Onboard 3.3V @ 150mA LDO regulator
 - 2 white LED backlight, transistor connected. Defaults to 'on' but can be connected to a digital pin for PWM or simply turning off
 - Comes with header, requires soldering!
 - Display current draw is mostly based on the backlight, with full backlight the current draw is ~100mA, this does not include the SD Card. SD cards can draw 20-100mA based on read/write. Measure current draw in circuit to get precise numbers.
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