

Adafruit 1.54" 240x240 Wide Angle TFT LCD Display with MicroSD – ST7789

PRODUCT ID: 3787

We've been looking for a display like this for a long time – it's only 1.5" diagonal but has a high density 220 ppi, 240x240 pixel display with full-angle viewing. It *looks* a lot like our 1.44" 128x128 display, but has 4x as many pixels and looks great at any angle. We've seen displays of this caliber used in smartwatches and small electronic devices but they've always been MIPI interface. Finally, we found one that is SPI and has a friendly display driver, so it works with any and all microcontrollers or microcomputers!

This lovely little display breakout is the best way to add a small, colorful and very bright display to any project. Since the display uses 4-wire SPI to communicate and has its own pixel-addressable frame buffer, it can be used with every kind of microcontroller. Even a very small one with low memory and few pins available! The 1.54" display has 240x240 16-bit full color pixels and is an IPS display, so the color looks great up to 80 degrees off axis in any direction. The TFT driver (ST7789) is very similar to the popular ST7735, and our Arduino library supports it well.

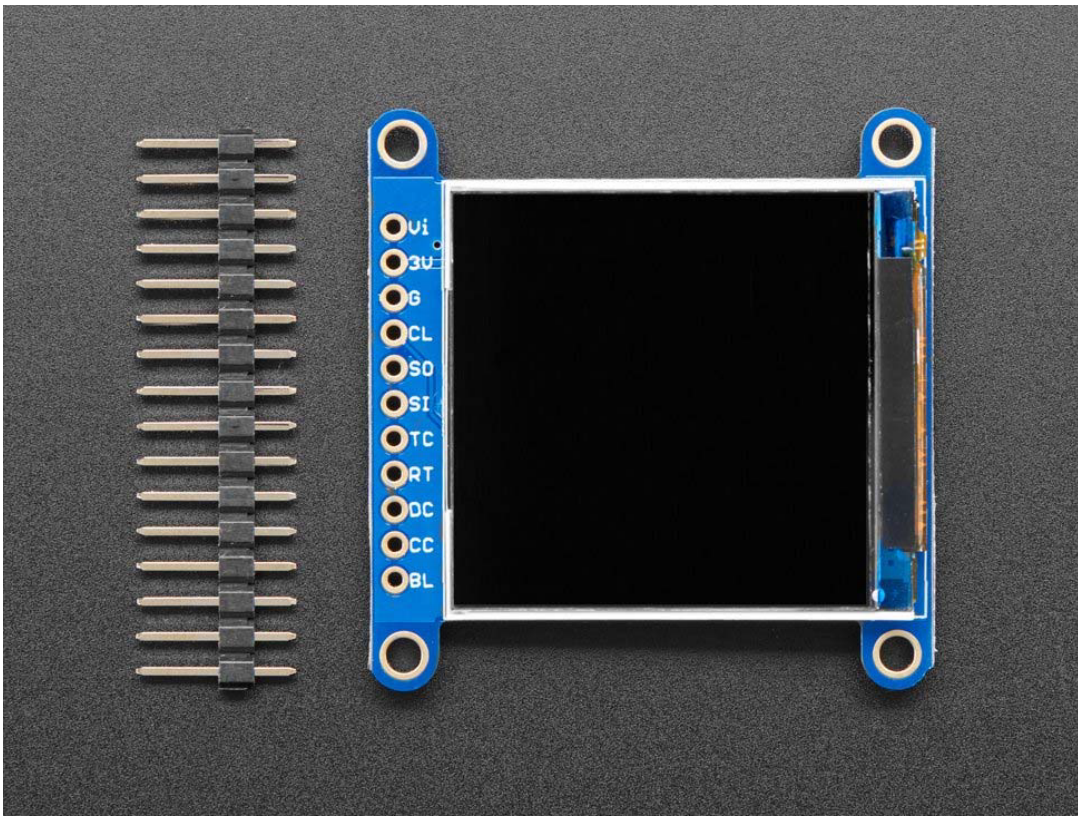
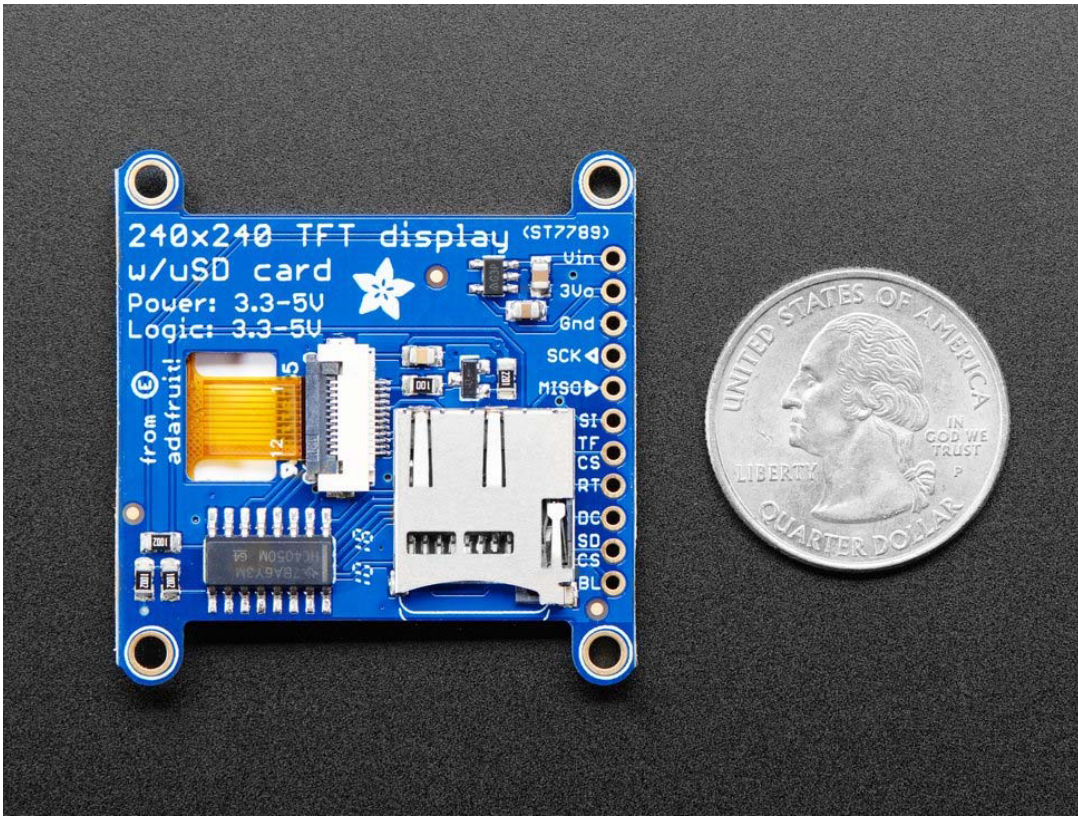
Our breakout has the TFT display soldered on (it uses a delicate flex-circuit connector) as well as a ultra-low-dropout 3.3V regulator and a 3/5V level shifter so you can use it with 3.3V or 5V power and logic. We also had a little space so we placed a microSD card holder so you can easily load full color bitmaps from a FAT16/FAT32 formatted microSD card. The microSD card is not included, but you can pick one up [here](#).

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!

Specifications:

- 1.54" LCD TFT display
- Built-in microSD slot
- 1x16 header for easy breadboarding
- 4 x 0.1" / 2.5mm mounting holes in corners
- LCD screen dimensions: 32mm x 31mm / 1.3" x 1.2"
- Overall dimension: 42mm x 41mm x 6mm / 1.7" x 1.6" x 0.2"
- Mounting holes: 1.45" x 1.4"
- Weight: 8.7g





<https://www.adafruit.com/product/3787> 4-17-18