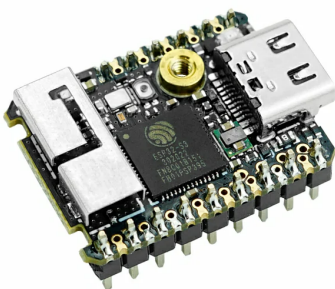
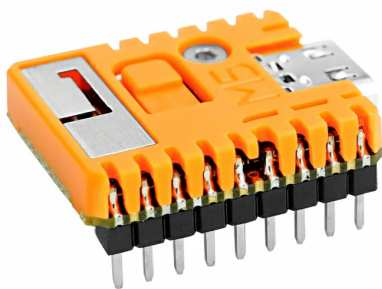


Stamp-S3 PIN2.54

SKU:S007-PIN254



Description

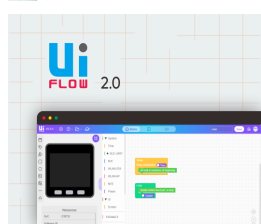
M5StampS3 PIN2.54 is a highly integrated embedded main control core module. It uses the Espressif **ESP32-S3FN8** main control chip, equipped with **8MB SPI flash**, and features a high-performance Xtensa 32-bit LX7 dual-core processor with a clock speed of up to 240MHz. The module includes a **highly integrated 5V to 3.3V circuit**, **RGB status indicator**, and **programmable button**. It exposes **10 GPIOs from the ESP32-S3** in the form of **2.54mm pitch pin headers**. This product is characterized by its compact size, strong performance, rich expansion I/O, and low power consumption. This module is suitable for **IoT applications requiring embedded main control modules**.

Tutorial



Arduino IDE

This tutorial will introduce you to how to program and control the M5StampS3 device using the Arduino IDE



UiFlow2

This tutorial will introduce you to how to control the M5StampS3 device using the UiFlow2 graphical programming platform

Features

- ESP32-S3FN8 (2.4GHz Wi-Fi)
- Integrated programmable RGB LED and button
- 2.54mm pitch pin headers
- Supports UIFlow graphical programming
- Development Platform
 - UiFlow2
 - Arduino IDE
 - ESP-IDF
 - PlatformIO

Includes

- 1 x Stamp-S3 PIN2.54
- 1 x Silkscreen sticker

Applications

- Smart home
- Wearable devices
- Medical devices

Specifications

Specification	Parameter
SoC	ESP32-S3FN8 @ Xtensa® 32-bit LX7 dual-core processor, clock frequency 240MHz
Flash	8MB
Wi-Fi	2.4 GHz Wi-Fi
DC-DC	MUN3CAD01-SC
Input Voltage	5V
Human-Machine Interface	Programmable physical button x 1, programmable RGB LED (WS2812B-2020) x 1
Antenna Type	2.4G 3D antenna
Module Resource Interface	Touch sensor, SD/SDIO/MMC host controller, SPI, SDIO/SPI slave controller, EMAC, motor PWM, LED PWM, UART, I2C, I2S, GPIO, pulse counter
IO Interface x23	G0/G1/G2/G3/G4/G5/G6/G7/G8/G9/G10/G11/G12/G13/G14/G15/G39/G40/G41/G42/G43/G44/G46
Pin Header Pitch	2.54mm
LCD Interface Pitch	0.5mm@12pin or 8pin
Operating Temperature	0 ~ 40°C
Product Size	26 x 18 x 4.6mm
Package Size	74 x 48 x 13mm
Product Weight	3.4g
Package Weight	6.3g

Learn

Download Mode

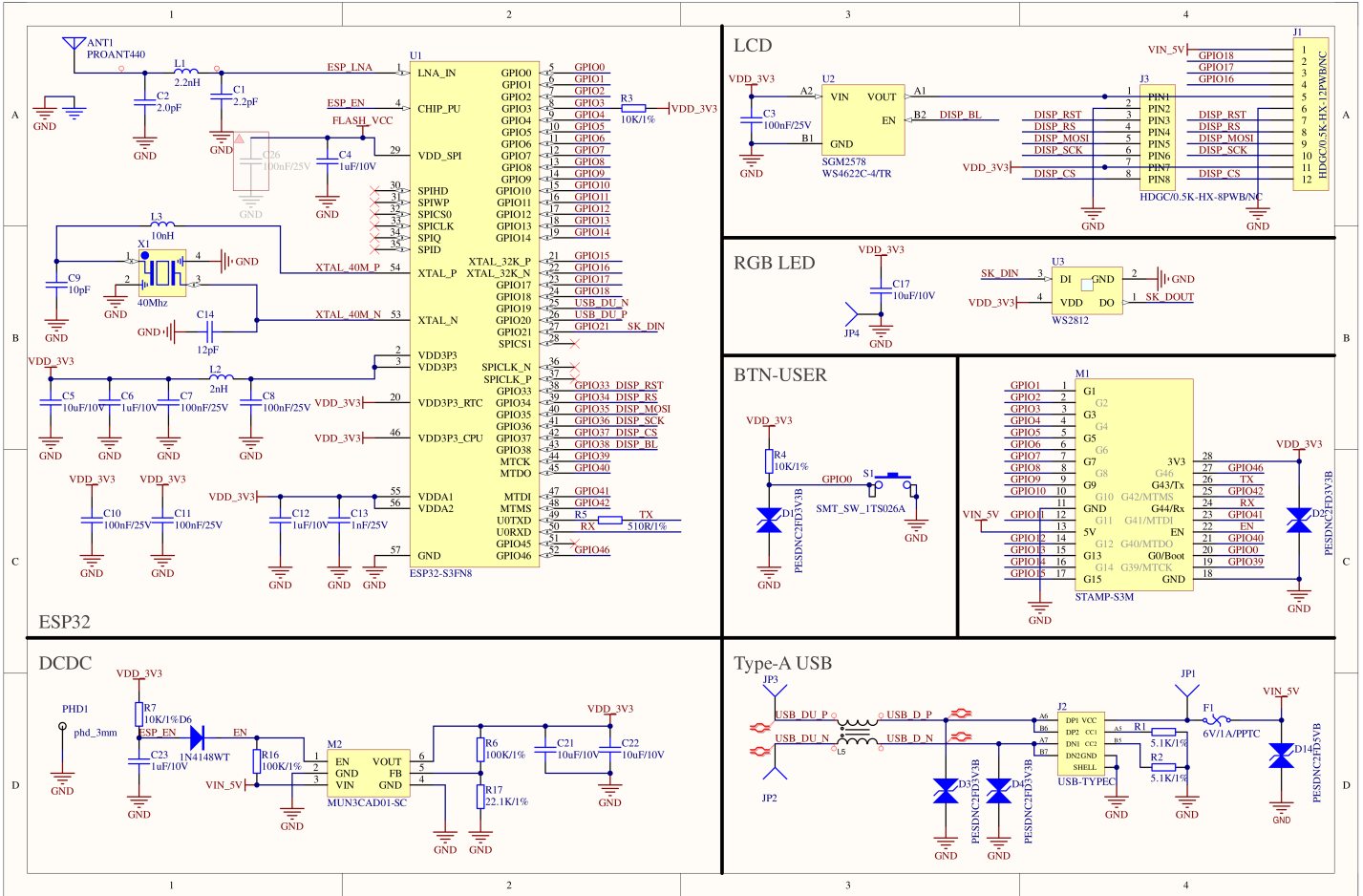
To enter download mode, hold down the G0 button on the StampS3 before powering on, and release it after powering up.

GPIO46 is pulled down by default.

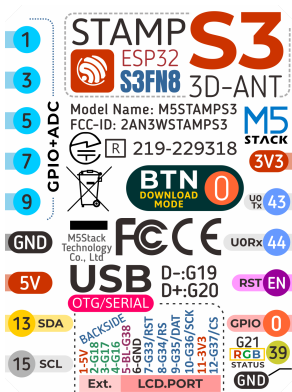
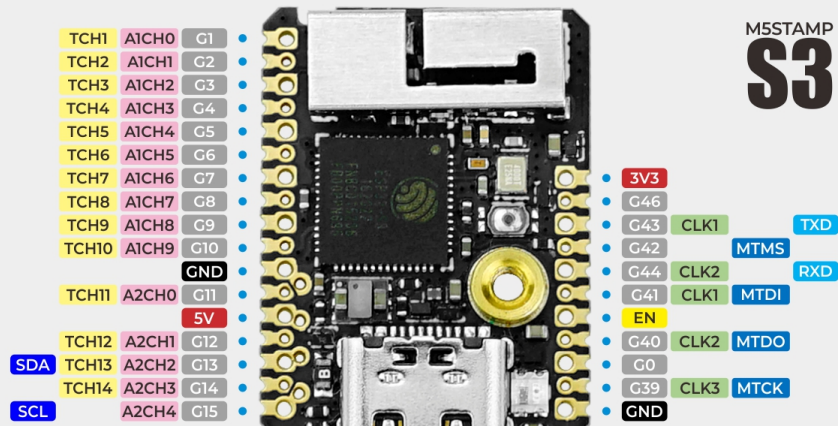
- ESP32-S3
- MUN3CAD01-SC

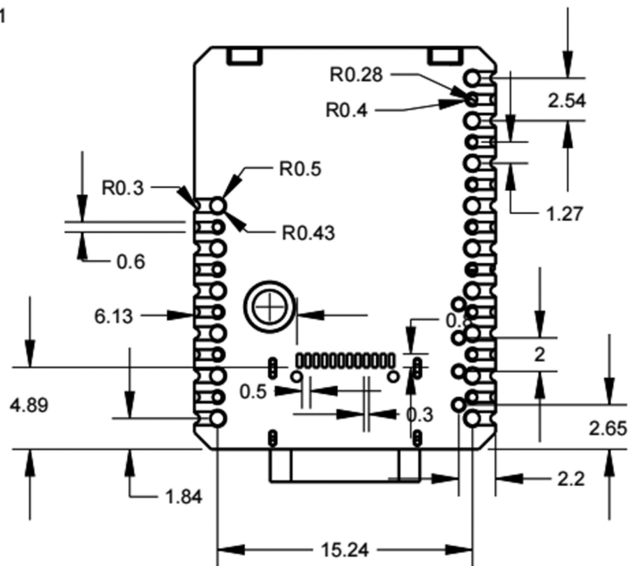
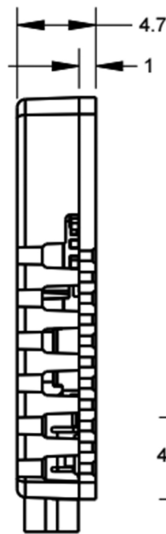
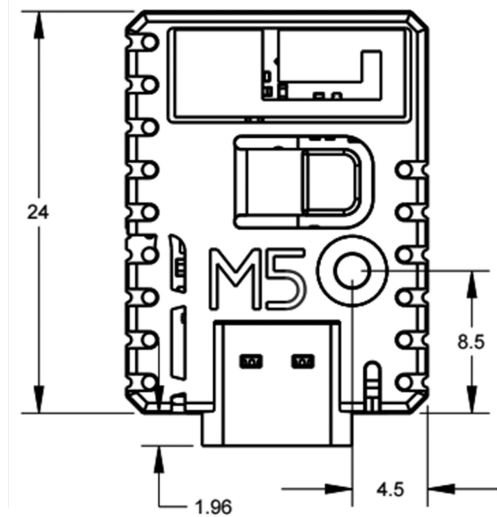
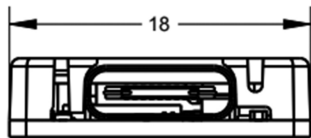
Schematics

- M5StampS3 PIN2.54 Schematics PDF



PinMap





UNIT : mm

PCB

- [Stamp-S3 PIN2.54 KiCad Footprint Library](#)

Structure

- [Stamp-S3 KiCad 3D](#)

Softwares

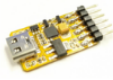
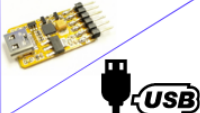
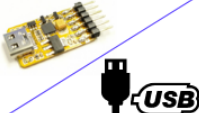
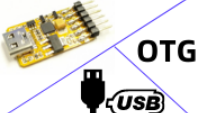
Arduino

- [Stamp-S3 PIN2.54 Arduino Quick Start](#)
- [M5StampS3 PIN2.54 Arduino Example](#)

UiFlow2

- [StampS3 UiFlow2 Quick Start](#)

Product Comparison

COMPARISON	STAMP PICO	STAMP C3U	STAMP C3	STAMP S3
PICTURE				
Number of IO ports	12	14	13	23
FLASH	4M	4M	4M	8M
Serial IC	/	USB CDC	CH9102F	USB CDC
Download method				
Pin spacing	2.54mm	2.54mm	2.54mm	2.54mm/ 1.27mm
LCD interface	✗	✗	✗	✓
CPU frequency	240MHz	160 MHz	160 MHz	240MHz
Size	24 × 18 × 4.6mm	34 × 20 × 4.6mm	34 × 20 × 4.6mm	26 × 18 × 4.6mm

To compare information on the Stamp series products, you can visit the [Product Selection Table](#), check the target products, and get the comparison results. The selection table covers key information such as core parameters and functional features, and supports comparison of multiple products simultaneously.