

Stamp-S3A PIN1.27

SKU:S007-PIN127-V033





Description

Stamp-S3A PIN1.27 is a highly-integrated embedded module based on the Espressif ESP32-S3FN8. It features a 240 MHz Xtensa® 32-bit LX7 dual-core processor, integrates 8 MB Flash, a programmable RGB LED, and a user button. The deeply optimized 3D antenna design delivers stronger wireless performance. Twenty-three GPIOs are broken out and a 1.27 mm-pitch SMT pin header is pre-soldered, providing an even smaller footprint for high-density PCB integration and enabling developers to build compact applications quickly.

Tutorial



Arduino IDE

This tutorial shows you how to program and control the Stamp-S3A PIN1.27 with the Arduino IDE.



UiFlow2

This tutorial shows you how to control the Stamp-S3A PIN1.27 using the UiFlow2 graphical programming platform.

| Features

- ESP32-S3FN8 (2.4 GHz Wi-Fi)
- 1.27 mm-pitch SMT interface
- 23 multifunctional GPIOs
- 8 MB Flash
- Rich I/O breakout supporting multiple application forms (SMT, DIP, fly-wire)
- Integrated programmable RGB LED and button
- Development Platform
 - UiFlow2
 - Arduino IDE
 - ESP-IDF
 - PlatformIO

| Includes

- 1 x Stamp-S3A PIN1.27
- 1 x Pin Sticker

| Applications

- Smart home
- Intelligent IoT devices
- Industrial control terminals
- Wearable devices

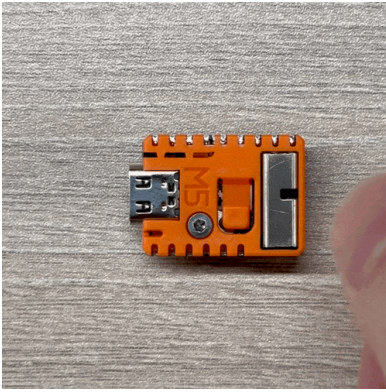
| Specifications

Specification	Parameter
SoC	ESP32-S3FN8
DC-DC	MUN3CAD01-SC
Flash	8 MB
Input Voltage	DC 5 V
HMI	Programmable physical button × 1, programmable RGB LED (WS2812B-2020) × 1
Antenna Type	2.4 GHz 3D antenna
Module	Touch Sensor, SD/SDIO/MMC Host Ctrl, SPI, SDIO/SPI Slave Ctrl, EMAC, Motor PWM, LED PWM,
Resource I/F	UART, I2C, I2S, GPIO, Pulse Counter
IO Interfaces × 23	G0/G1/G2/G3/G4/G5/G6/G7/G8/G9/G10/G11/G12/G13/G14/G15/G39/G40/G41/G42/G43/G44/G46
IO Pitch	1.27 mm
LCD FPC Pitch	0.5 mm @ 12 P or 8 P
Operating Temp.	0 ~ 40 °C
Product Size	26.0 × 18.0 × 4.7 mm
Product Weight	3.1 g
Package Size	74.0 × 48.0 × 13.0 mm
Gross Weight	7.6 g

Learn

Download Mode

To enter download mode, hold the G0 button on the Stamp-S3A PIN1.27 before powering on, then release it after power is applied.

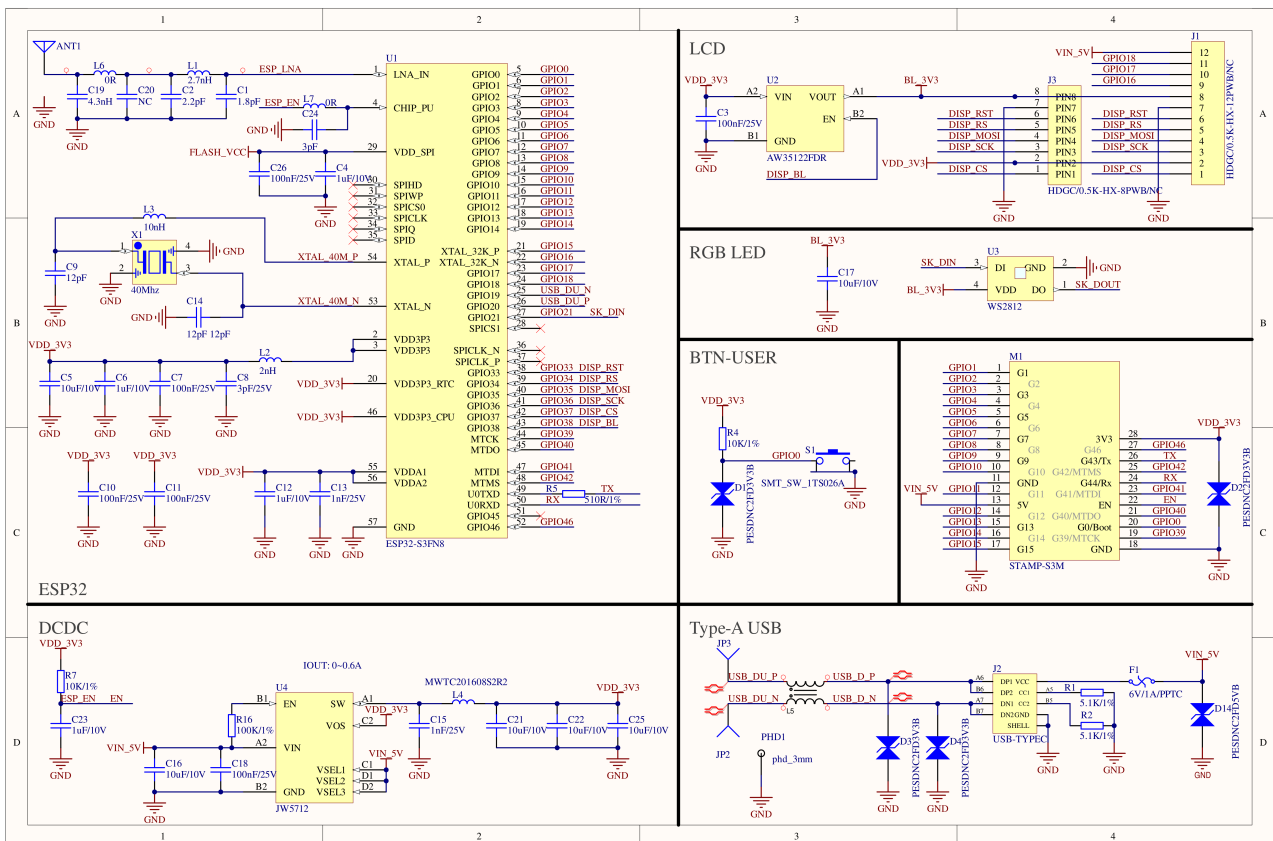


Additional Notes

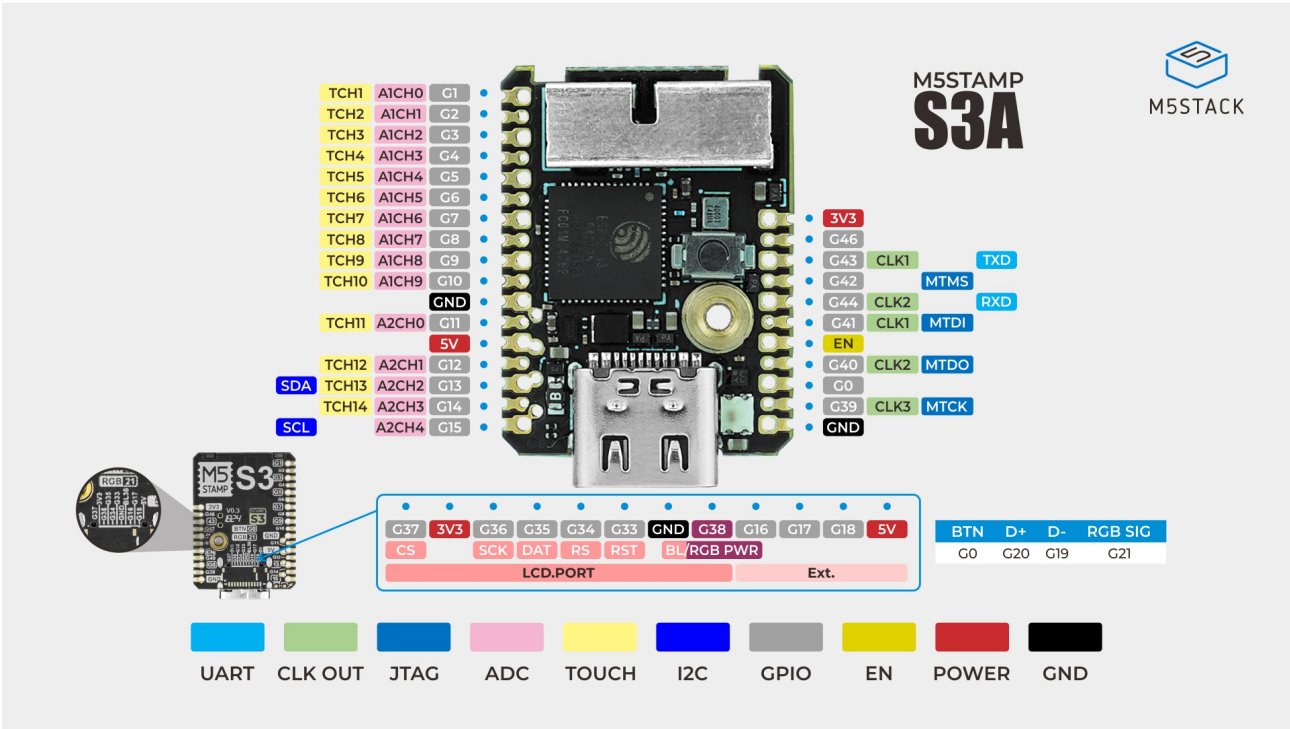
- ESP32-S3 pins G0 and G46 are strapping pins that determine the boot mode. By default, G0 is pulled-up and G46 is internally pulled-down, enabling the chip to boot from SPI Flash normally. Do not pull G46 high before the chip boots; otherwise, the chip will fail to start. Refer to the Strapping-Pin section of the ESP32-S3 datasheet for details.
- An SPI interface for a TFT display is reserved on the back of the module. Compatible FPC connector specifications are [8 PIN](#) and [12 PIN](#).

Schematics

- [Stamp-S3A PIN1.27 Schematics PDF](#)

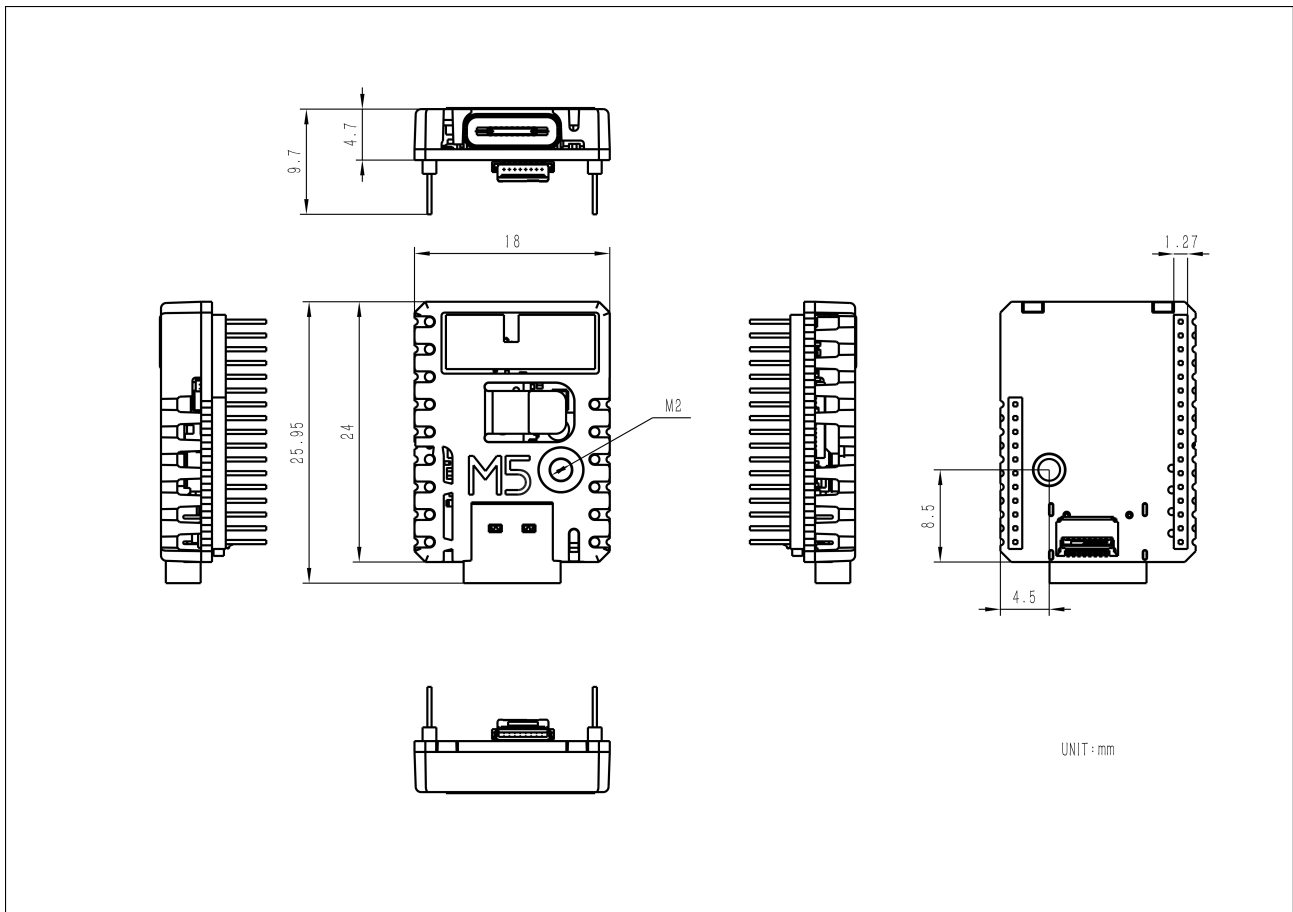


PinMap



Model Size

[Stamp-S3A PIN1.27 Model Size PDF](#)



PCB

- [KiCad PCB Footprints](#)

Datasheets

- [ESP32-S3](#)
- [MUN3CAD01-SC](#)

Softwares

Arduino

- [Stamp-S3A PIN1.27 Arduino Quick Start](#)

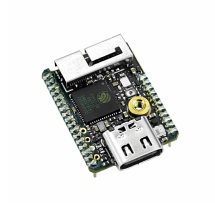
UiFlow2

- [Stamp-S3A PIN1.27 UiFlow2 Quick Start](#)

Video

[S007-V033andS007-PIN127-V033_video.mp4](#)

Product Comparison

Product Comparison		
Item	 Stamp-S3A PIN1.27	 Stamp-S3 PIN1.27
RGB LED Control Logic	RGB LED power is multiplexed with the reserved screen FPC bus backlight	Powered as soon as power is applied
Antenna Design	Optimized antenna design with better signal reception	Conventional antenna design
Module Boot Button	Improved tactile feel; 4.0 × 3.0 × 2.0 mm button	2.6 × 1.6 × 0.55 mm button
Power Consumption	Optimized for lower power consumption	Standard design

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