

STAMP-PICO

SKU:C050-B, K051, K051-B



Tutorial&Quick-Start

Choose the development platform you want to use, view the corresponding tutorial&quick-Start.

[UIFlow](#) [Arduino](#)

Description

STAMP-PICO features an ultra-compact design with two low-power **Xtensa® 32-bit LX6 microprocessors** at **240MHz** on a PCB as tiny and delicate as a postage stamp. low power consumption. It is ideal for any space-constrained or battery-powered devices such as wearables, medical devices, sensors, and other **IoT** devices.

- 1, **MULTIFORM** : 5 options of installation, means endless possibilities! (SMT, DIP, flywire, grove interface), with a high-temperature resistant plastic shell, 3D antenna and components can be better protected.
- 2, **LOW-CODE DEVELOPMENT** : STAMP-PICO supports UIFlow graphical programming platform, scripting-free, cloud push; and fully compatible with Arduino, MicroPython, ESP32-IDF, and other mainstream development platforms to quickly build various applications.
- 3, **HIGH INTEGRATION** : STAMP-PICO contains 5V->3.3V DC/DC port, GPIOx12, programmable RGB light x1, button x1, finely tuned RF circuit, providing stable and reliable wireless communication.
- 4, **STRONG EXPANDABILITY** : Easy access to M5Stack's hardware and software ecology system: a wealth of sensors, actuators, functional modules, and accessories to choose from, Extremely fast adaptation.

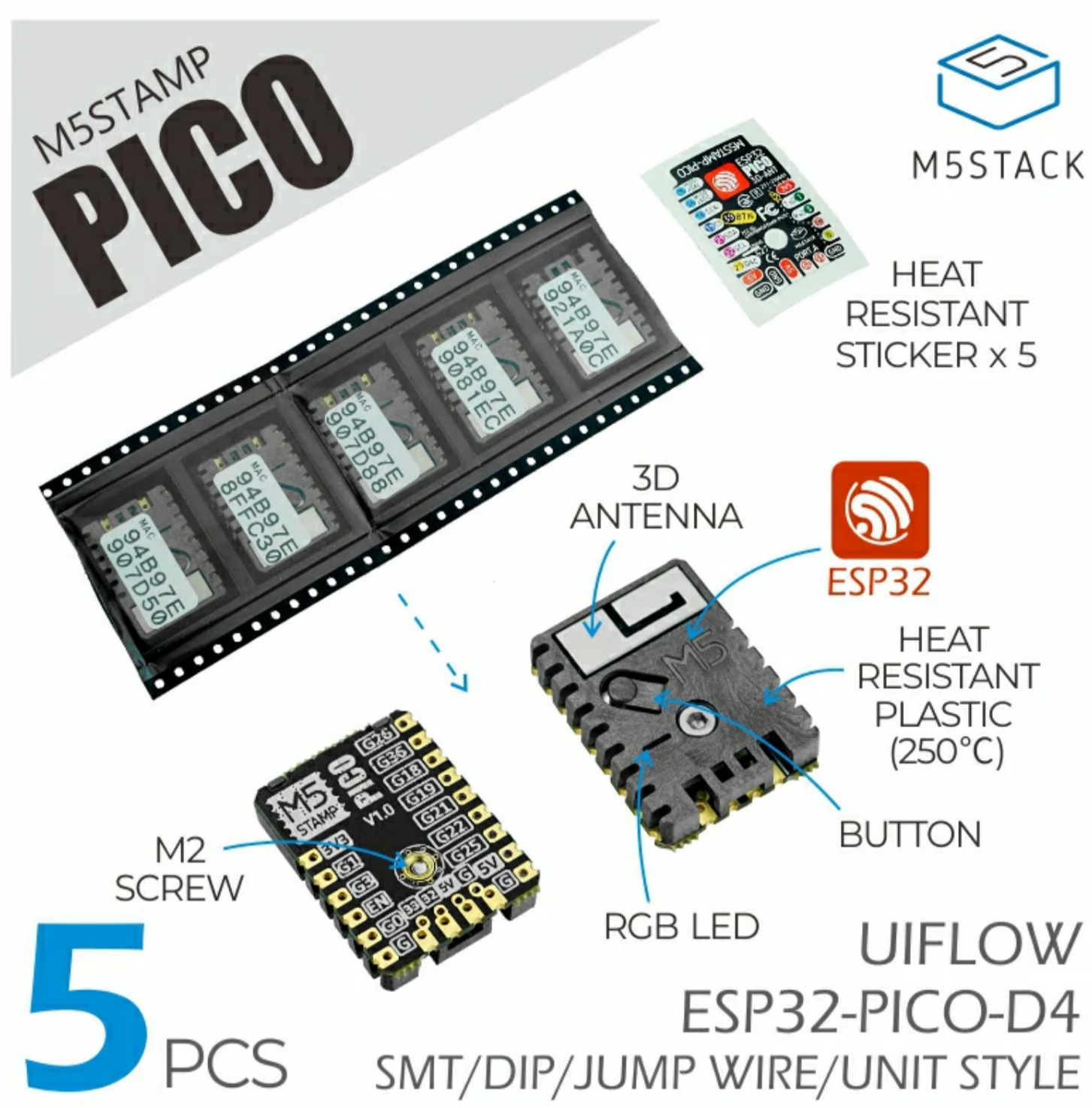
Product Features

- Chip-set:ESP32-PICO-D4 (2.4GHz Wi-Fi and Bluetooth dual mode)
- Support UIFlow graphical programming
- Multi-IO pinout, support multiple application forms (SMT, DIP, fly-by-wire)
- Integrated programmable RGB LEDs and buttons
- Miniature module

Include

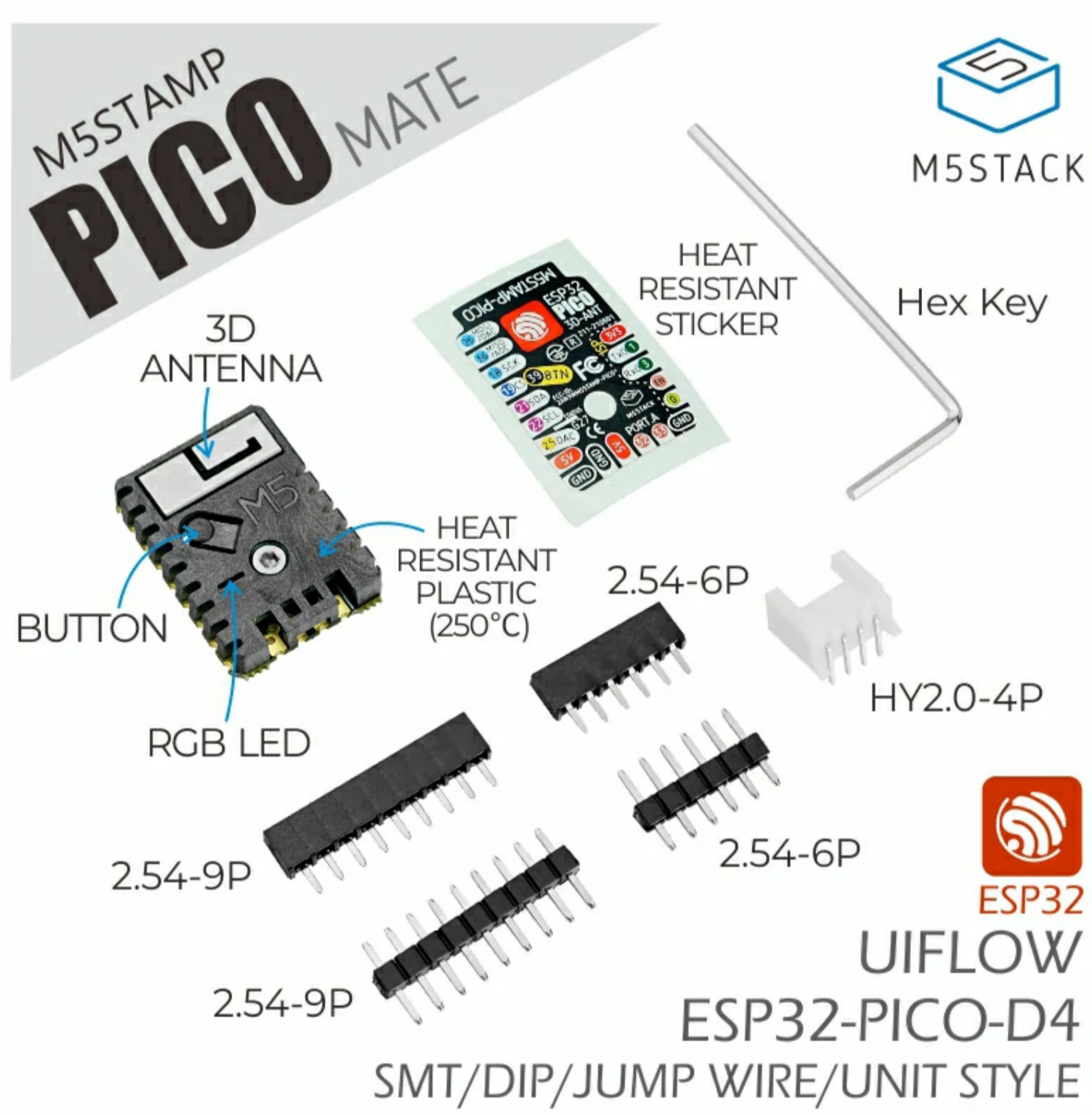
- [Purchase link](#)

- M5Stamp Pico (5pcs):
 - 5 x M5Stamp Pico
 - 5 x Sticker



- [Purchase link](#)

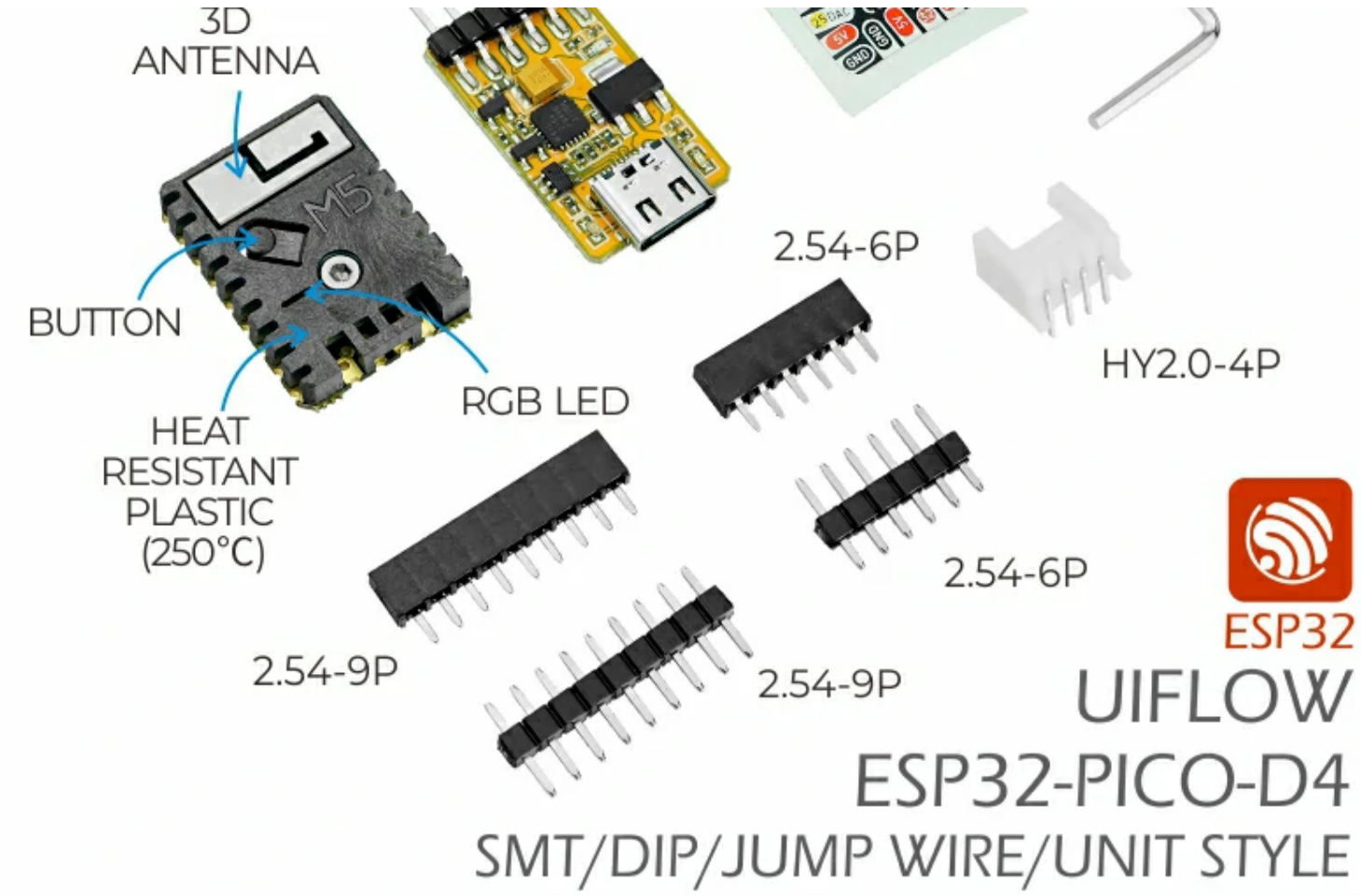
- M5Stamp Pico Mate:
 - 1 x M5Stamp Pico
 - 1 x Sticker
 - 4 x Pin Headers
 - 1 x 90° Grove Connector
 - 1 x Hex Key



- [Purchase link](#)

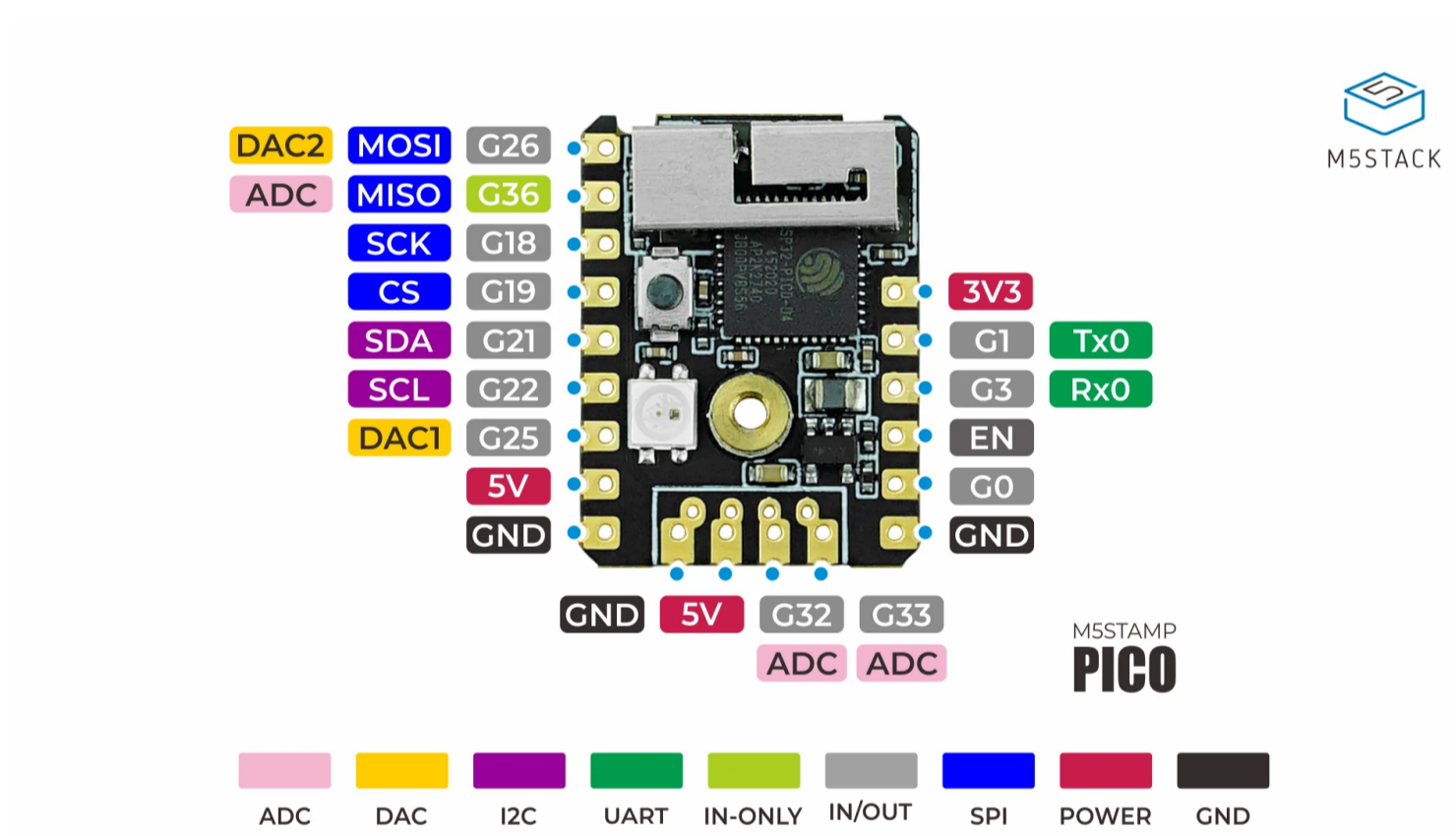
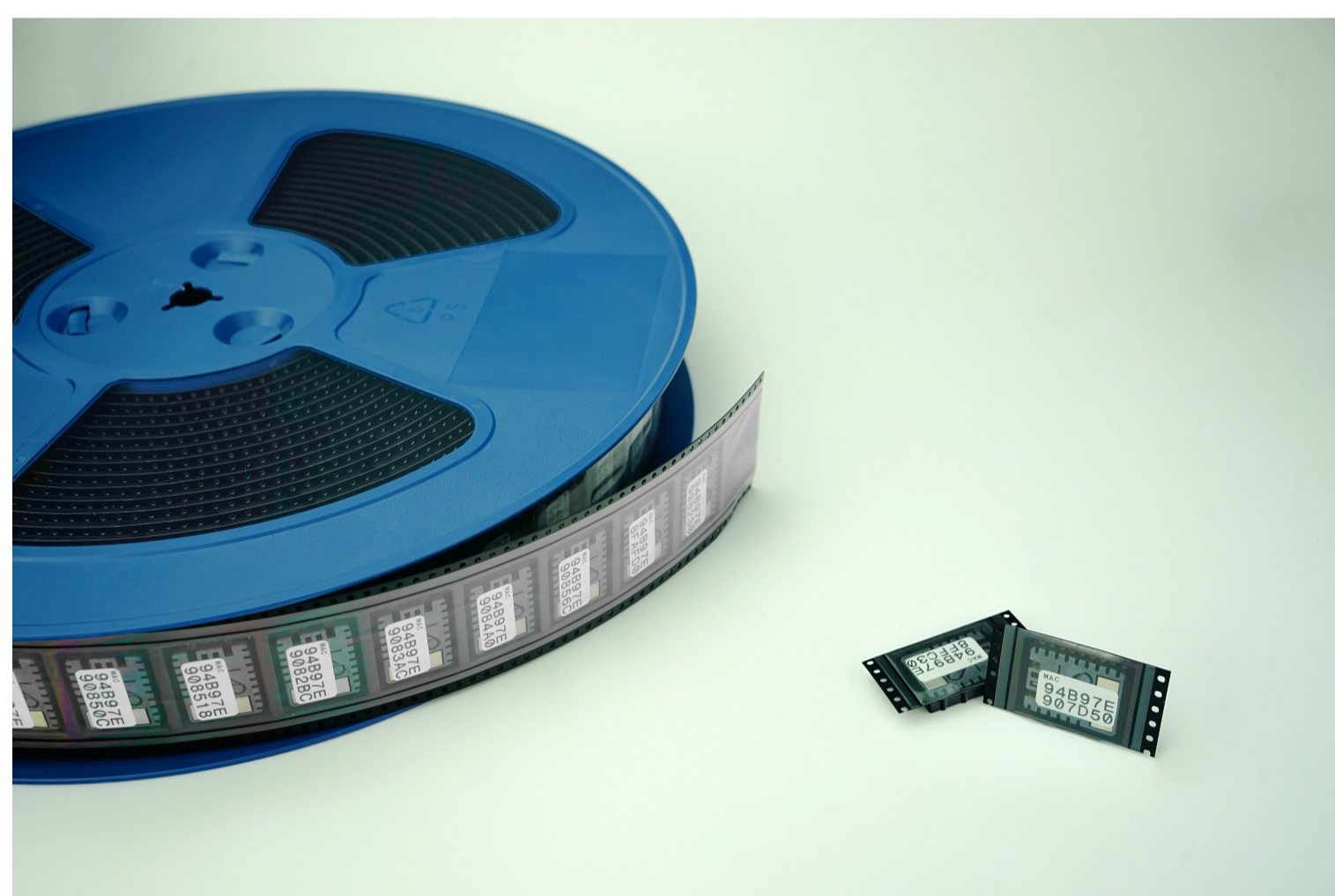
- M5Stamp Pico DIY Kit:
 - 1 x M5Stamp Pico
 - 1 x Sticker
 - 4 x Pin Headers
 - 1 x 90° Grove Connector
 - 1 x Hex Key
 - 1 x ESP32 Downloader





Applications

- Instrumentation
- Wi-Fi Remote Monitoring/Control
- Smart Home
- Color LED Control
- Fire/security intelligent integrated management
- Smart Card Terminal
- Wireless POS



Specification

Resources	Parameter
Master Control	ESP32-PICO-D4
Resource	
Flash	4MB
Input Voltage	5V @ 500mA
Power consumption	Normal standby: 5V@29mA, WIFI STA mode: 5V@60mA, Bluetooth mode data sending status: 5V@84mA, Deep-sleep mode: 5V@0.35mA
Wireless communication	AP Mode: 16m, BLE Mode: 110m, Class Bluetooth Mode: 90m

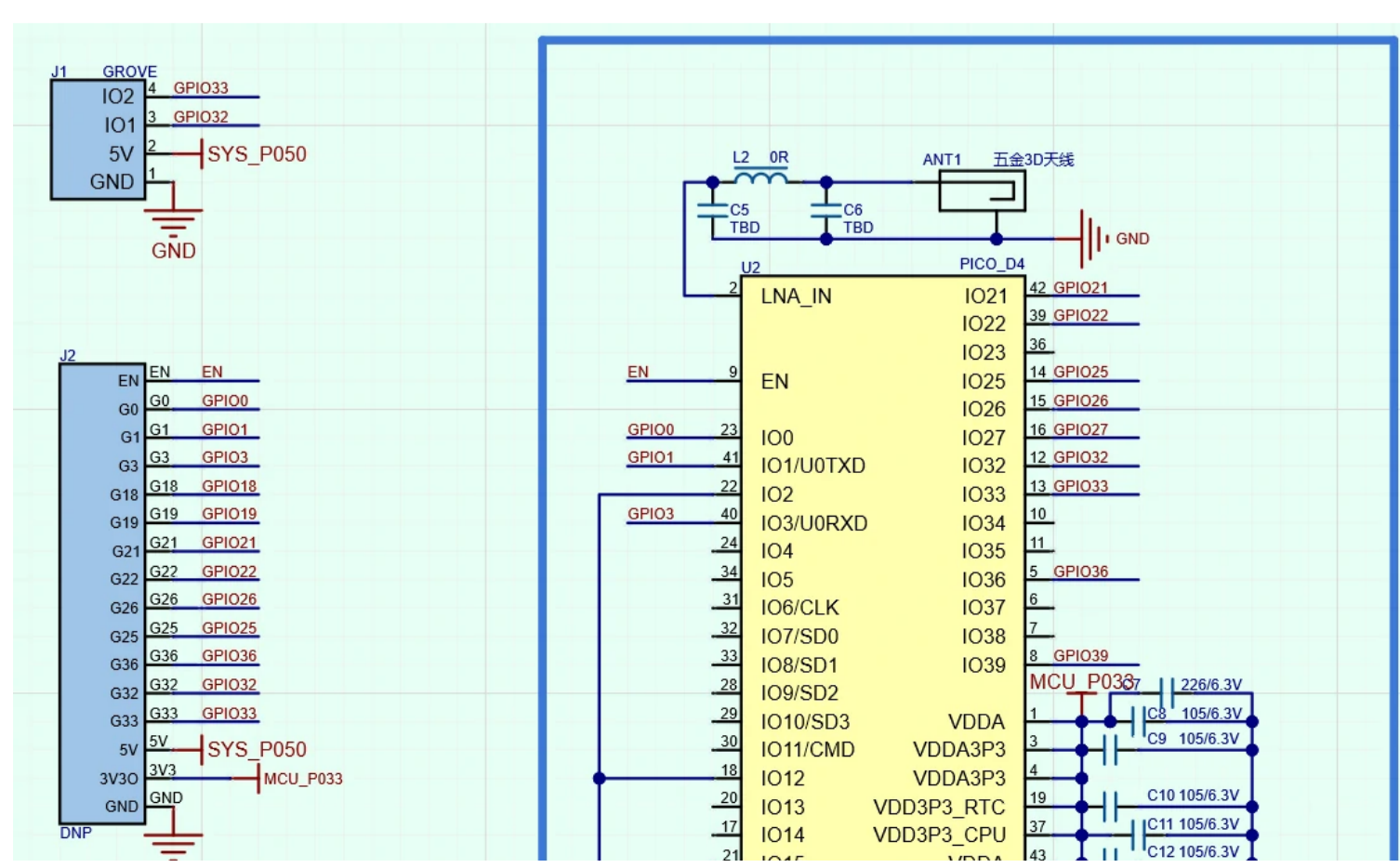
distance	Parameter
UI	Programmable physical keys x 1, Programmable RGB LED (SK6812) x 1
Antenna Type	2.4G 3D Antenna
WiFi	802.11 b/g/n (up to 150 Mbps for 802.11n), spectrum range: 2.4 GHz ~ 2.5 GHz
Bluetooth	Bluetooth V4.2 BR/EDR and BLE standard, NZIF receiver, sensitivity up to -97 dBm
Module Resource	ADC, DAC, touch sensor, SD/SDIO/MMC host controller, SPI, SDIO/SPI slave controller, EMAC, motor PWM, LED
Interface	PWM, UART, I2C, I2S, IR remote controller, GPIO, pulse counter
IO interface x12	G0, G1, G3, G26, G36, G18, G19, G21, G22, G25, G32, G33
IO interface spacing	2.54mm
perating temperature	0°C to 60°C
Net weight	2.6g
M5Stamp Pico (5pcs)	18g
Gross weight	
M5Stamp Pico Mate	6g
Gross weight	
M5Stamp Pico DIY	12g
Kit Gross weight	
Product Dimensions	18 * 24 * 4.4mm
Package Size	85*55mm sealing bag (translucent)

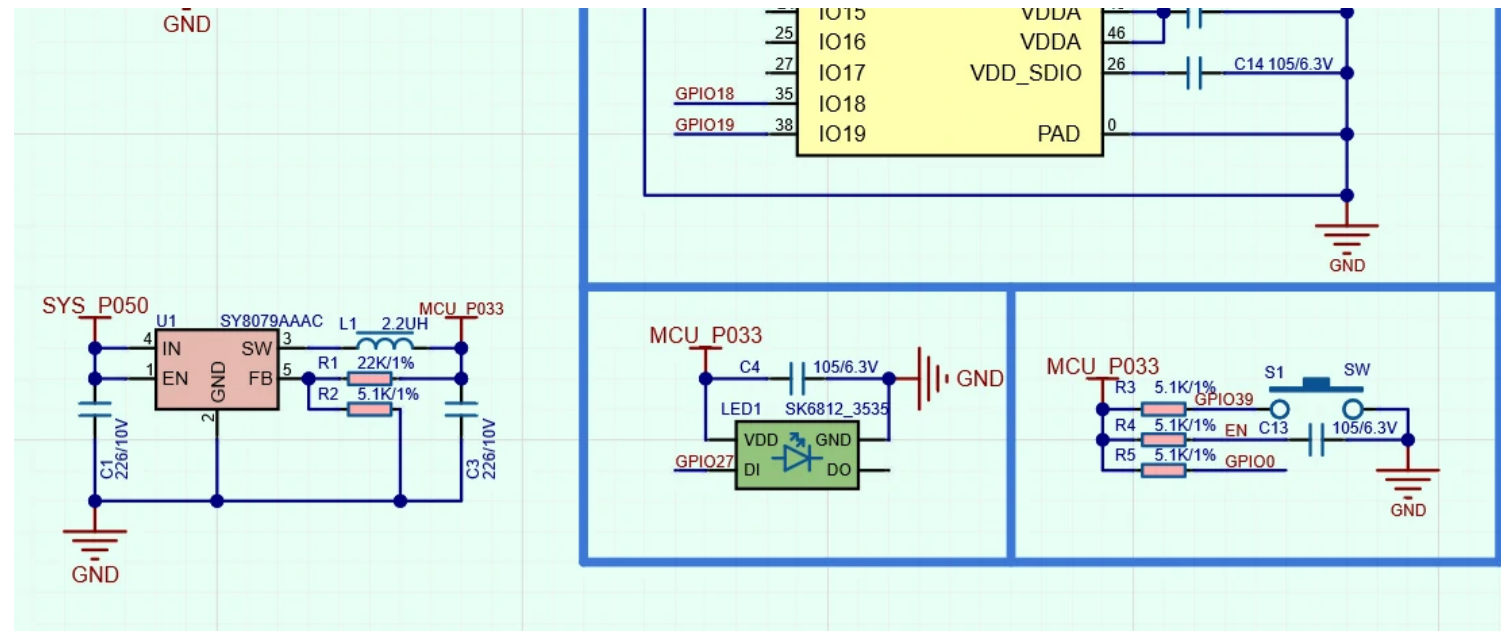
PinMap

SK6812 (RGB LED) and Button

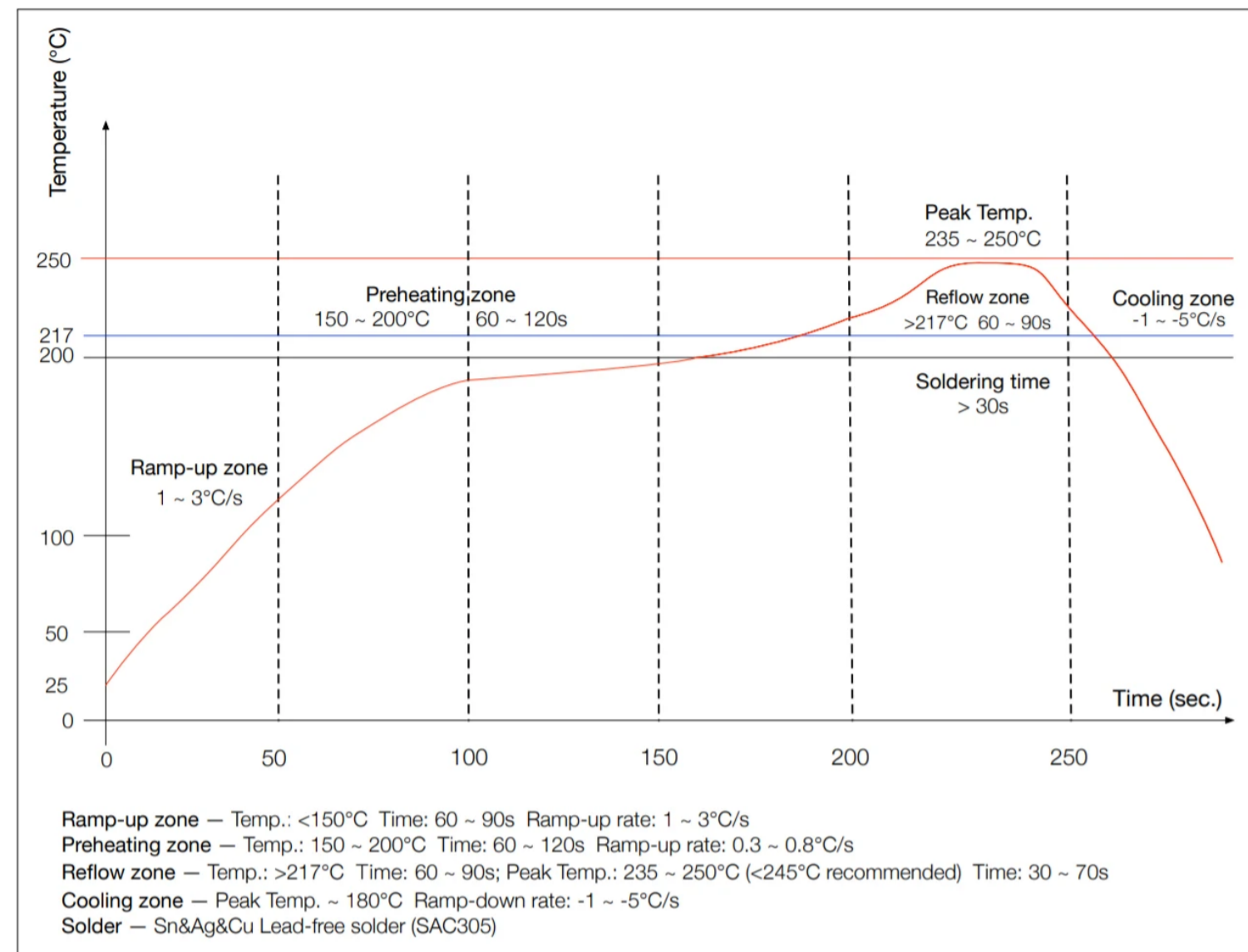
ESP32	GPIO27	GPIO39
SK6812	DI	/
Button	/	SW

Schematic



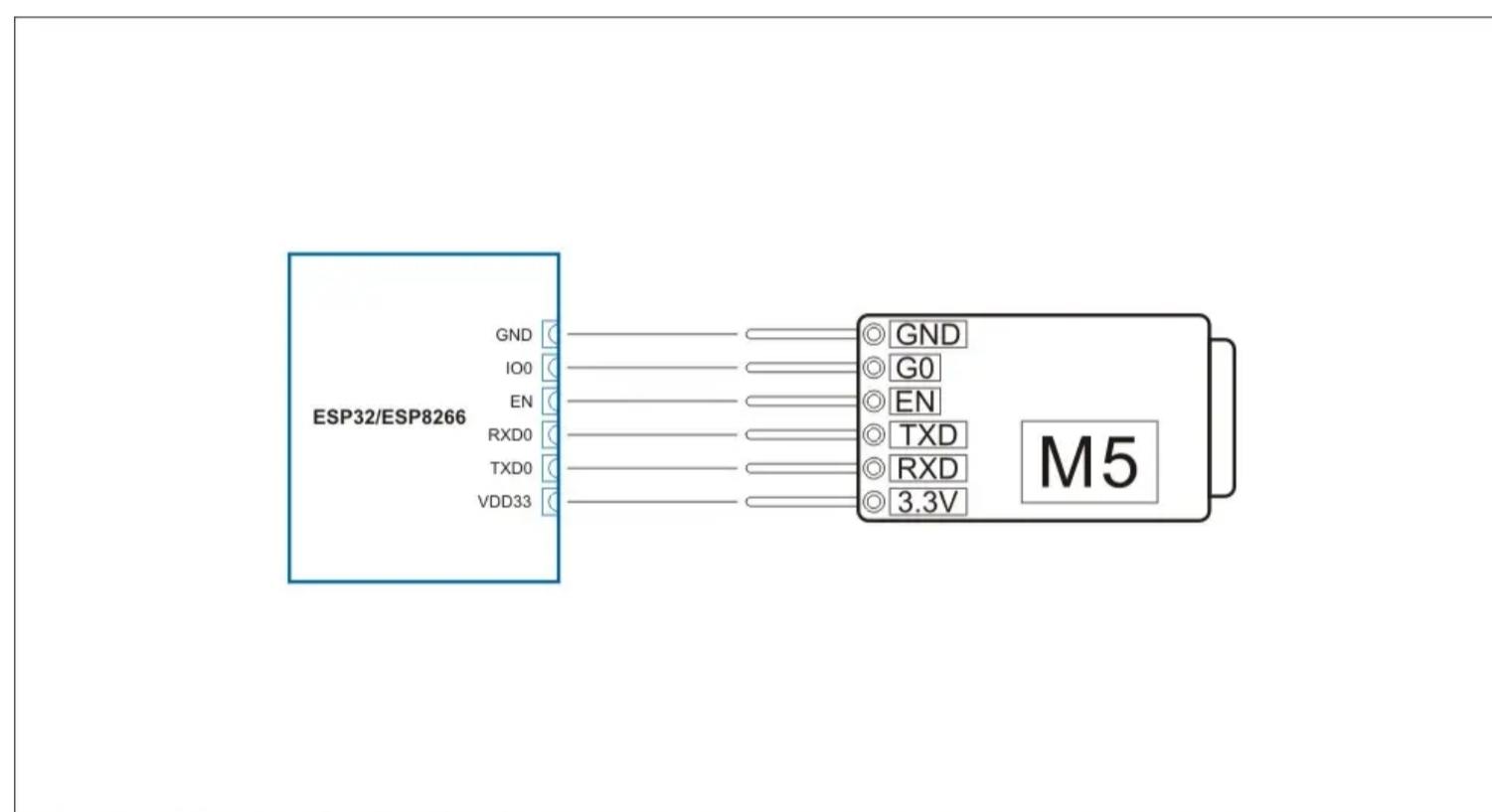


The shell supports Reflow Profile



Program Download

- STAMP-PICO adopts the most streamlined circuit design, so it does not include the program download circuit, users can download the program through the USB-TTL burner.



Related Link

- Datasheet**
 - [ESP32-PICO](#)
- PCB**
 - [STAMP-PICO PCB DOC](#)
 - [LCEDA STAMP-PICO Component](#)

Video