

# AtomS3

SKU:C123



## Description

**AtomS3** is a highly integrated programmable controller based on **ESP32-S3** main control, which integrates ESP32-S3 main control, integrated **WiFi** function, and **8M** on-chip FLASH; **0.85** inch **IPS screen** ; **Programmable button function** at the bottom of the screen; Built-in 5V to 3.3V circuit, 6-axis gyro sensor **MPU6886** , on-board **Type-C** interface, power supply and firmware download, one **HY2.0-4P** expansion port, **6 GPIOs and power pins** reserved at the bottom to facilitate expansion applications. The product size is only **24\*24mm** , which is suitable for various **embedded smart device applications** .

- **Reminder:** If you need to burn the firmware, please press and hold the reset button (about 2 seconds) until the internal green LED lights up, then you can release it, at this time the device has entered download mode and waited for burning.

## Features

- Developed based on ESP32-S3FN8
- Comes with USB download function
- Built-in 3-axis gyroscope and 3-axis accelerometer (MPU6886)
- Programmable keys
- 0.85 inch LCD screen
- Infrared emission function
- Expandable pins and interfaces
- Development platform: Arduino, UIFlow

## Includes

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- 1x AtomS3

## Applications

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- IoT node
- Microcontroller
- Wearables

## Specification

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Resources	Parameters
MCU	ESP32-S3FN8
DCDC	SY8089
IMU	MPU6886
LCD	N085-1212TBWIG06-C08
Operating temperature	0°C ~ 40°C
Resolution	128(H)RGB x 128(V)
support voltage	5V
Power supply mode	TYPE C
output voltage	3.3V
IO interface × 6	G5/G6/G7/G8/G38G39
Screen communication protocol	SPI
Product Size	24mm × 24mm × 13mm
Package Size	65mm × 44.5mm × 14mm
Product Weight	6.8g
Package Weight	10.9g



# ATOM S3

**ESP32-S3FN8**  
WiFi / DualCore  
8M-FLASH

**0.85" IPS-LCD**  
128 x 128 P

**6-DoF IMU**  
MPU6886

**Button x 1**  
**GPIOs x 6**  
**IR LED x 1**  
**USB CDC**  
**PortA x 1**



ESPRESSIF



M5STACK

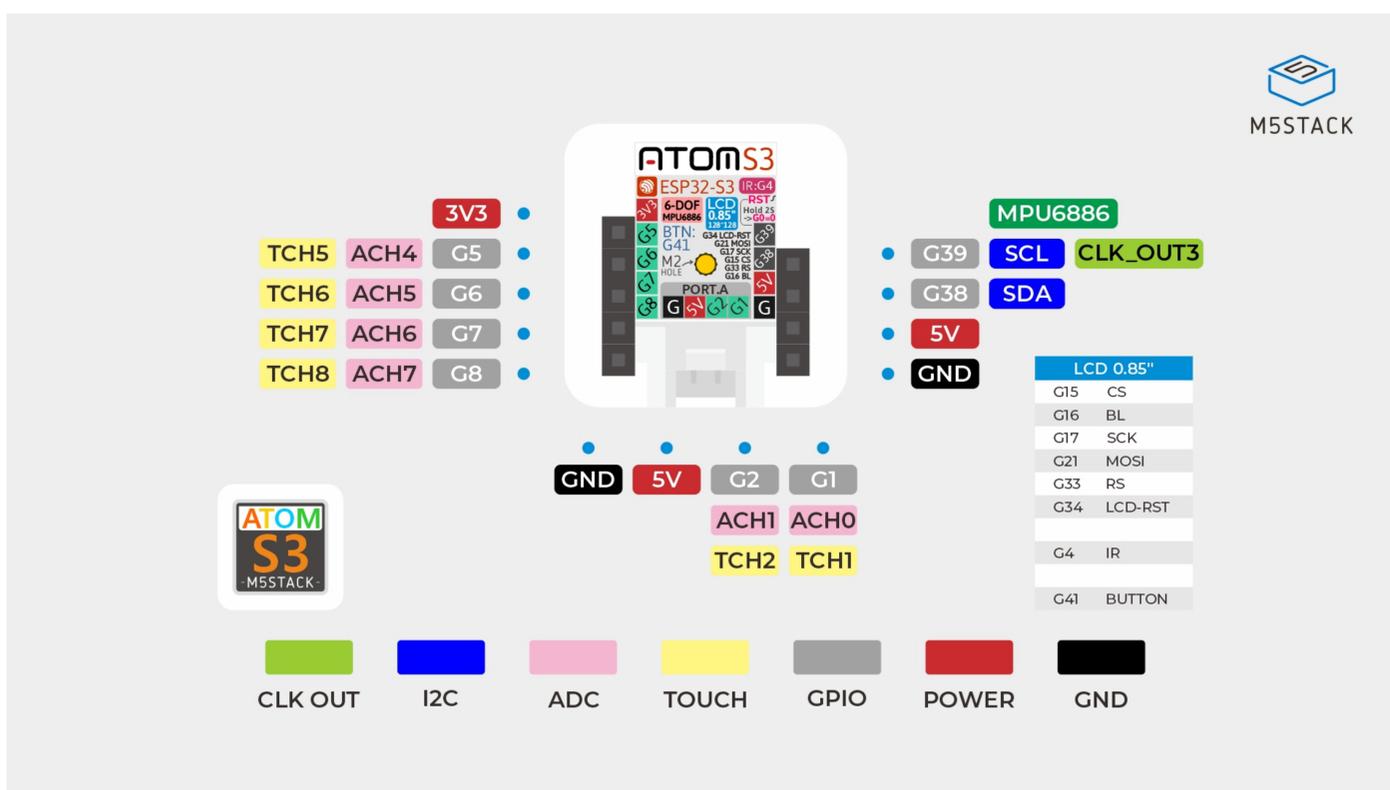
**PROGRAMMABLE IoT CONTROLLER**



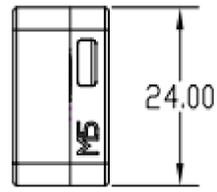
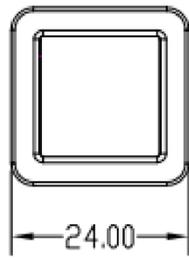
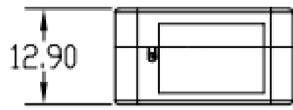
## Related Link

- [ESP32-S3](#)
- [SY8089](#)
- [AtomS3 Demo Easyloader Download](#)

## Schematic



## Module Size



UNIT:mm

## Examples

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### Arduino

- [AtomS3 Arduino Library](#)

