



M5STACK

AtomS3

SKU:C123

NEW ATOM-S3

0.85" IPS LCD
GC9107
128x128P

ESP32-S3

MPU6886
INSIDE

M5STACK
Ext.GPIOs x 6

IR LED

ATOM S3
-M5STACK-

RESET
BUTTON
Press = RESET
Hold 2S = G0->LOW

USB-C
POWER/PROG.

PORT.A
HY2.0-4P
I2C/GPIO/ADC/UART

ARDUINO
UIFLOW2.0
MicroPython

24x24x12.8mm

ESP32-S3FN8

x



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

- 1x AtomS3

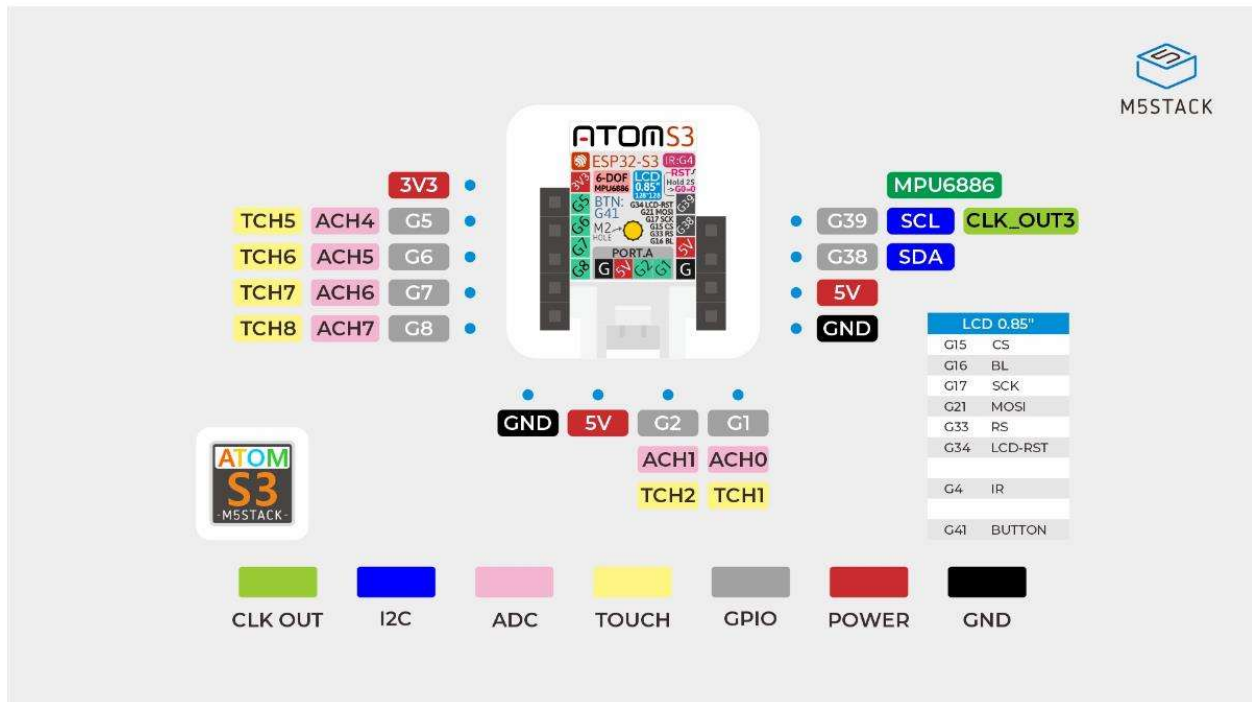
Applications

- IoT node
- Microcontroller
- Wearables

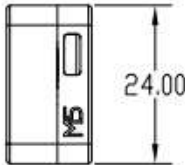
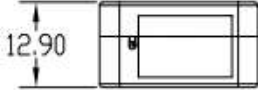
Specification

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

Schematic



Module Size



UNIT:mm