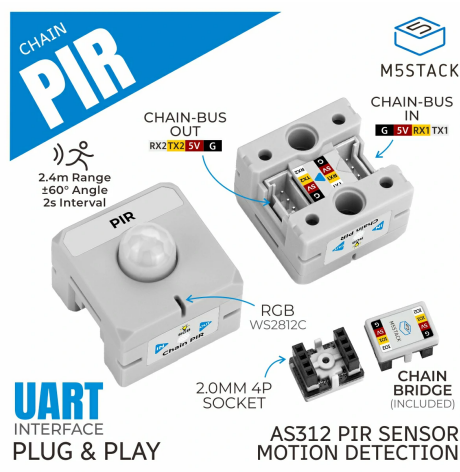
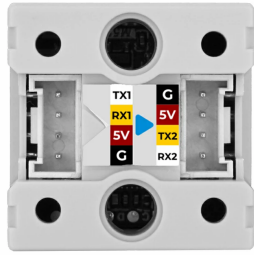


Chain PIR

SKU:U225





Description

Chain PIR is a pyroelectric infrared human presence sensing node in the M5Stack Chain series. It features a built-in pyroelectric infrared sensor and an integrated programmable RGB LED. It is suitable for applications such as human activity detection, smart home automation, and security alarms.

Chain PIR integrates an STM32G031G8U6 data processor and uses a UART serial daisy-chain communication protocol. Its two HY2.0-4P expansion interfaces allow additional Chain series devices to be connected, enabling richer interactive applications.

Features

- M5Stack Chain series
- Pyroelectric infrared human presence sensing
- STM32G031G8U6 main controller
- UART serial daisy-chain communication protocol
- 1 x RGB LED
- 2 x HY2.0-4P expansion interfaces for connecting Chain series devices
- Two operating modes:
 - Automatic reporting mode: Automatically sends data to the host when the PIR status changes
 - Query mode: The host initiates a query, and the slave responds with the current PIR status

Includes

- 1 x Chain PIR
- 1 x Chain Bridge

Applications

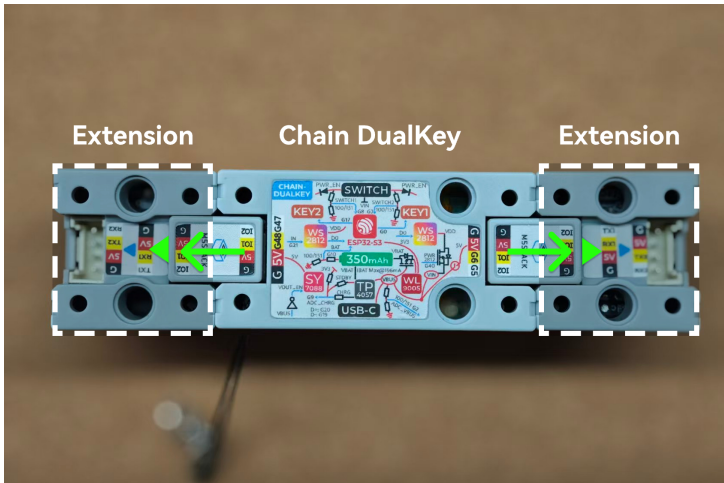
- Human activity detection
- Smart home automation
- Security alarms

Specifications

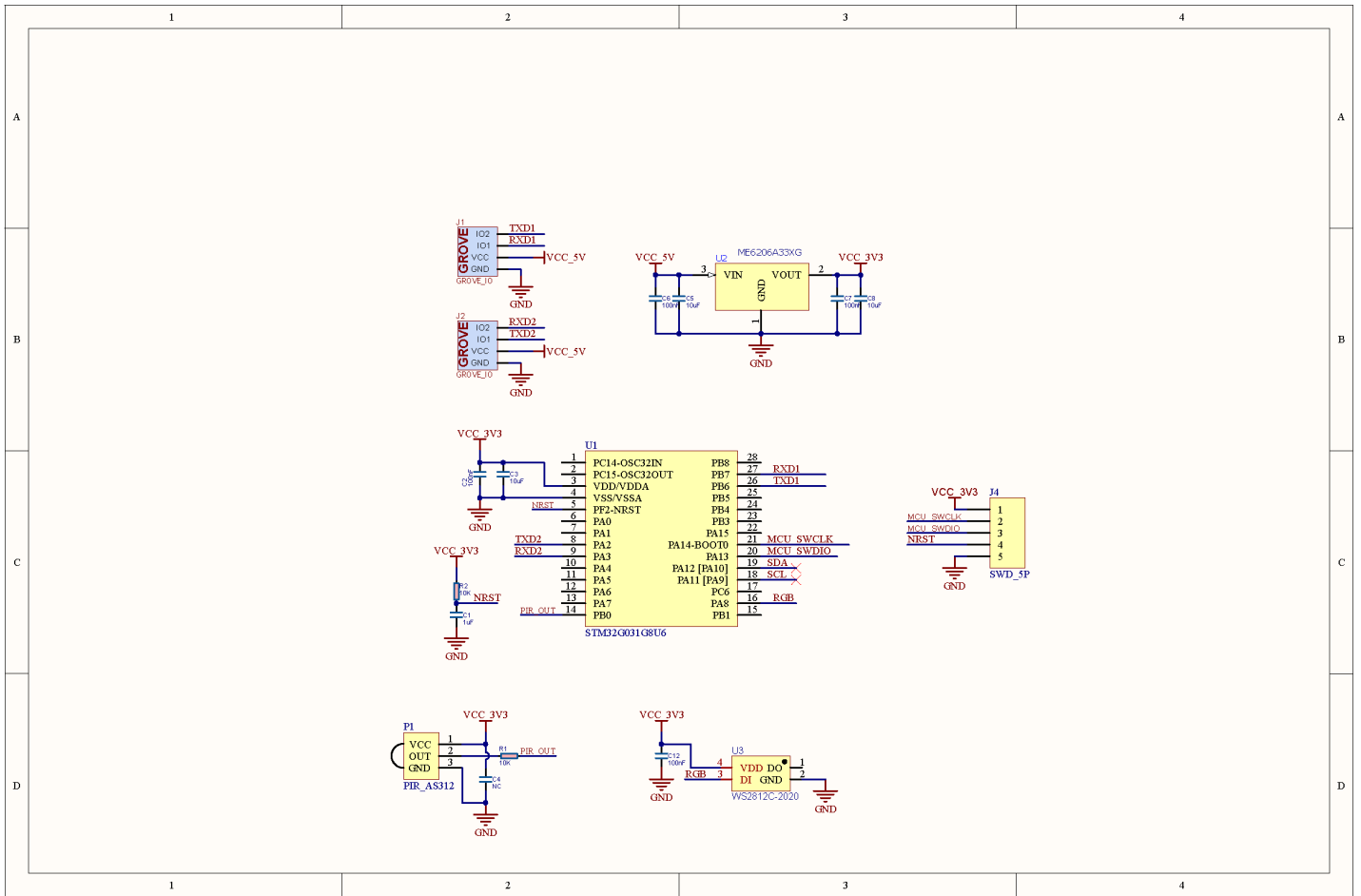
Specification	Parameter
MCU	STM32G031G8U6
Power Input	DC 5V
Communication	UART 115200bps@8N1
Interface	2 x HY2.0-4P
RGB LED	1 x WS2812C
Sensor	AS312 Pyroelectric Infrared Sensor
Maximum Detection Distance	2.4m
Detection Angle	±60°
Detection Interval	2s
Operating Power Consumption	5V@10.74mA
Product Size	23.9 x 23.9 x 22.3mm
Product Weight	6.8g
Package Size	138.0 x 93.0 x 21.0mm
Gross Weight	10.0g

Learn

Use Chain Bridge connectors to connect the Chain DualKey controller to each Chain series input device. Pay attention to the orientation when connecting: the triangular arrows should point outward from the Chain DualKey controller, as shown below:



Schematics



PinMap

RGB LED

STM32G031	PA8
WS2812C	RGB

PIR

STM32G031		PB0
PIR Sensor		Input

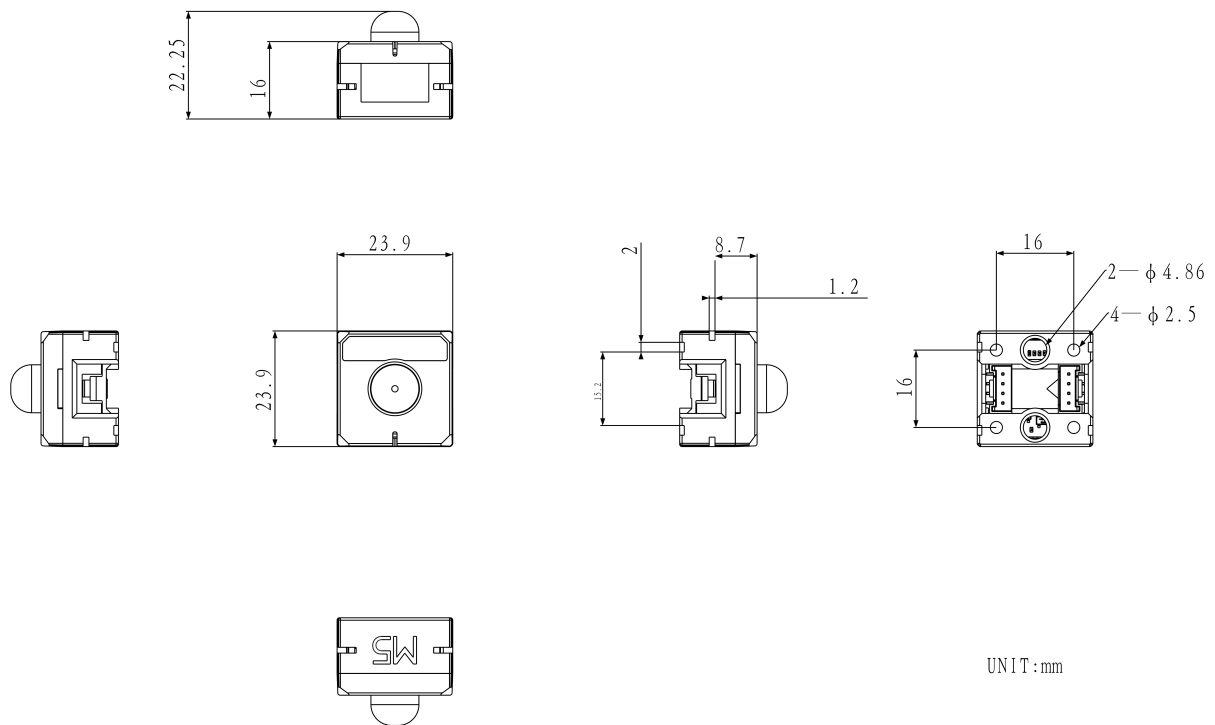
The PIR Sensor detection trigger hold time is 2 seconds. When repeatedly triggered, the hold time is restarted from the last valid pulse.

UART

STM32G031	PB6	PB7	PA2	PA3
UART1	TXD1	RXD1		
UART2			TXD2	RXD2

Model Size

- [Chain PIR Model Size PDF](#)



Softwares

Arduino

- [Chain PIR Arduino Quick Start](#)
- [Chain Series Driver Library](#)
- [Chain PIR Test Program](#)

UiFlow2

- [Chain PIR UiFlow2 Documentation](#)

Internal Firmware

- [Chain PIR Internal Firmware](#)

Protocol

[View Protocol](#)

- [Chain PIR Communication Protocol PDF](#)

Video

- Chain PIR Product Introduction and Feature Demonstration

[U225_Chain_PIR_video_EN.mp4](#)