

Cardputer

SKU:K132



Description

Cardputer is a card-sized portable computer that is perfect for engineers. At the heart of Cardputer is the M5StampS3, a mini development board based on the ESP32-S3 chip. Cardputer features a powerful dual-core processor, supports Wi-Fi functionality and integrates various peripherals and sensors, making it ideal for rapid functional verification, industrial control and home automation systems.

The 56-key keyboard and 1.14" TFT screen allow users to easily enter and view information. The on-board SPM1423 digital MEMS microphone and built-in speaker enable voice operations such as recording, wake-up and audio playback. The infrared emitter allows infrared control interaction with external devices such as TVs or air conditioners. And Cardputer offers a HY2.0-4P interface for expanding I2C sensors such as temperature and humidity sensors, light sensors and pressure sensors, which allows users to add different functional modules according to their needs and unleash their creativity. Cardputer also includes a Micro SD card slot for expanding storage space. Users can store program code, data files, images, audio and other resources on the Micro SD card.

The device is powered by an internal 120mAh+1400mAh (in the base) lithium battery solution, eliminating concerns about battery life. In addition, Cardputer has built-in battery charging and voltage regulation circuits that automatically adjust voltage and current to protect the battery and the device. The base of the Cardputer incorporates a magnet, allowing it to be attached to metal surfaces such as fridges or whiteboards. What's more, Cardputer's structure is compatible with Lego hole extensions, allowing users to create even more interesting designs using Lego bricks

Tutorial&Quick Start



Arduino IDE

This tutorial will show you how to control Cardputer devices through Arduino IDE programming

Features

- M5StampS3 Microcontroller.
- 56 key keyboard.
- 1.14 Inch TFT Screen.
- Cavity speaker and SPM1423 digital MEMS microphone.
- Infrared emission tube is used for infrared control interaction.
- HY2.0-4P port for connecting and expanding I2C sensors.
- Micro SD card slot for expanding storage space.
- The built-in 120mAh and 1400mAh lithium battery in the base provide long battery life.
- Base with magnet, compatible with Lego hole expansion.

Includes

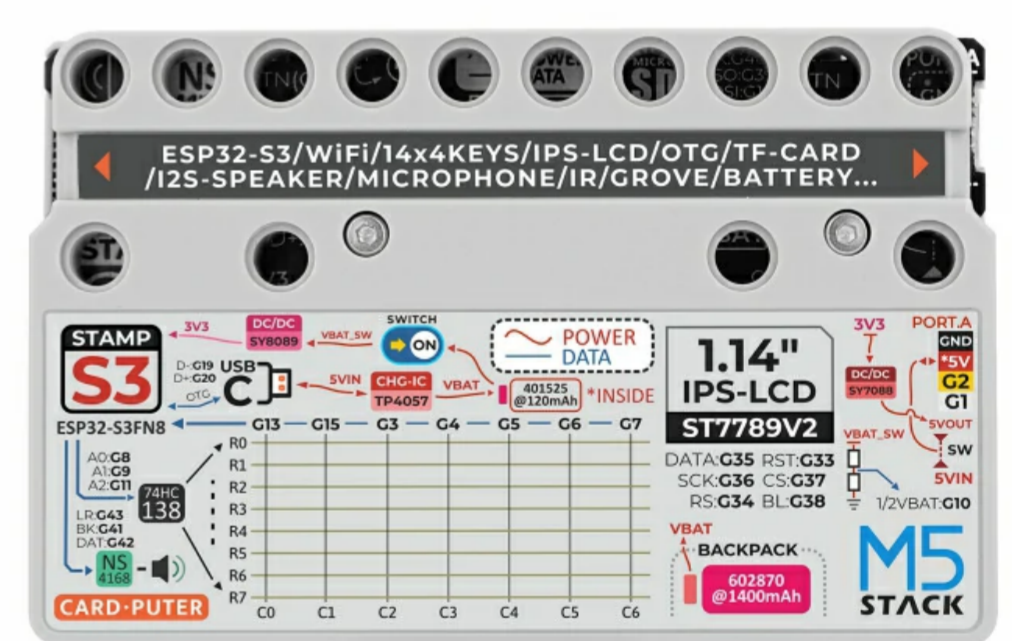
- 1x Cardputer
- 1x Hex Key

Applications

- Fast functional verification and prototyping
- Industrial control and automation
- Home Control System
- Data acquisition and sensor monitoring
- Embedded system development and learning
- Wireless communication and Internet of Things (IoT) projects

Specification

Resources	Parameters
StampS3	ESP32-S3@Xtensa LX7 ,8M-FLASHWIFI,OTG\CDC Function
Battery Capacity	120mAh+1400mAh
Screen	ST7789V2@1.14 Inch、240*135px
Infrared emission distance	Infrared emission distance (linear distance) of $\angle 180^\circ$: 410cm Infrared emission distance of $< 90^\circ$: 66cm Infrared emission distance of $< 45^\circ$: 170cm
Standby current	DC4.2V/0.26uA
Operating current	IR emission mode :DC4.2V/ 255.6mA Key mode :DC4.2V/165.7mA
Speaker	8Ω@1W
Product Size	84*54*17mm
Package Size	149*94*18mm
Product Weight	92.8g
Package Weight	114g



Products related to this Item

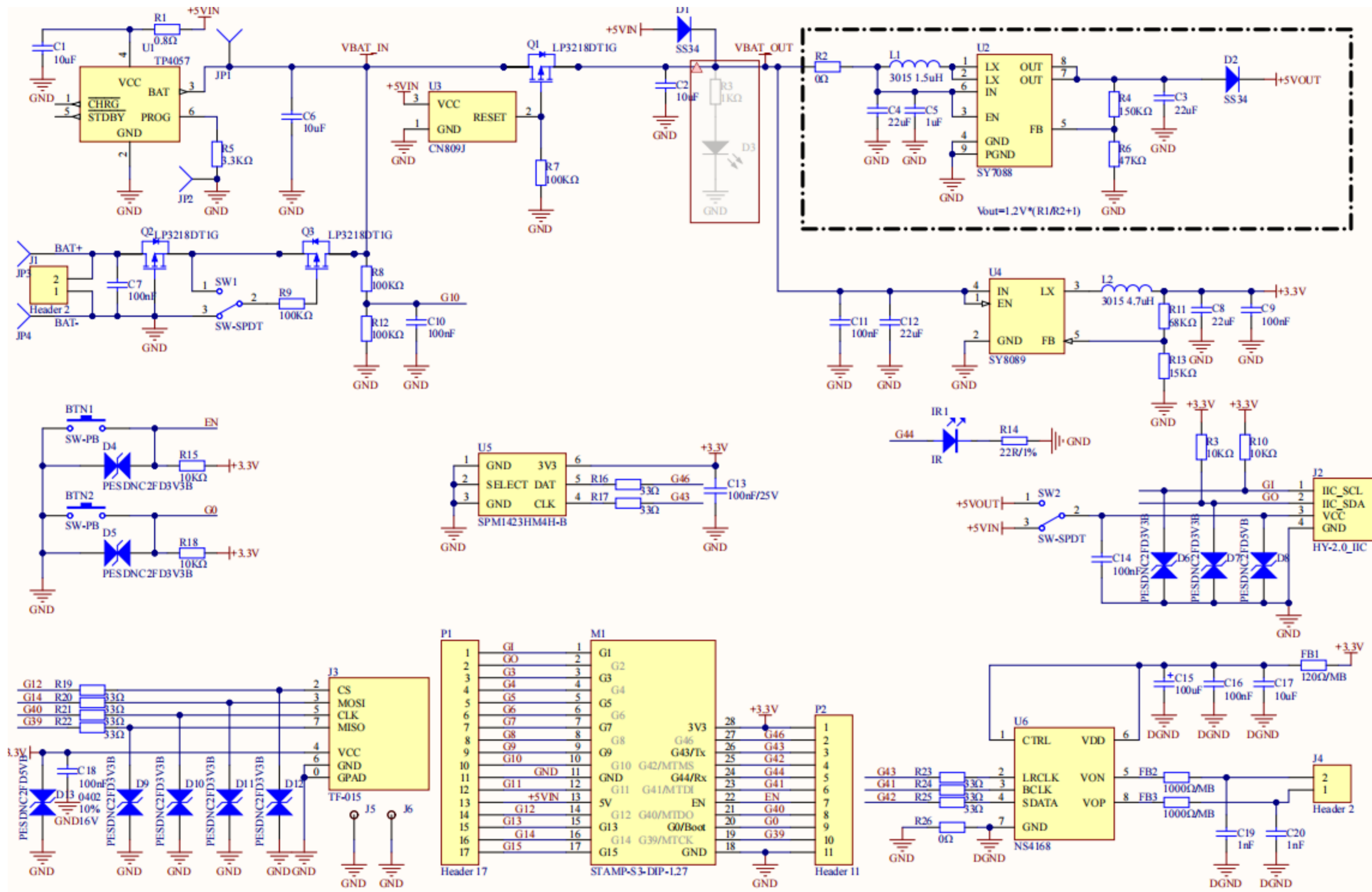
StampS3 (S007)

M5StampS3 PIN1.27 (S007-PIN127)

Related Link

- [SPM1423](#)
- [ST7789V2](#)

Schematic



- [Complete Schematic](#)
- [Base Schematic](#)

PinMap

PORT A

ESP32S3 Chip	G1	G2	5V	GND
Cardputer (PORT A)	SCL	SDA	VCC	GND

SPM1423 MIC

ESP32S3 Chip	G46	G43	3.3V	GND
SPM1423	DAT	CLK	VCC	GND

Micro SD Socket

MICRO SD SOCKET

ESP32S3 Chip	G12	G14	G40	G39
Micro SD Socket	CS	MOSI	CLK	MISO

ST7789V2

ESP32S3 Chip	G38	G33	G34	G35	G36	G37
ST7789V2	BL	RST	RS	DAT	SCK	CS

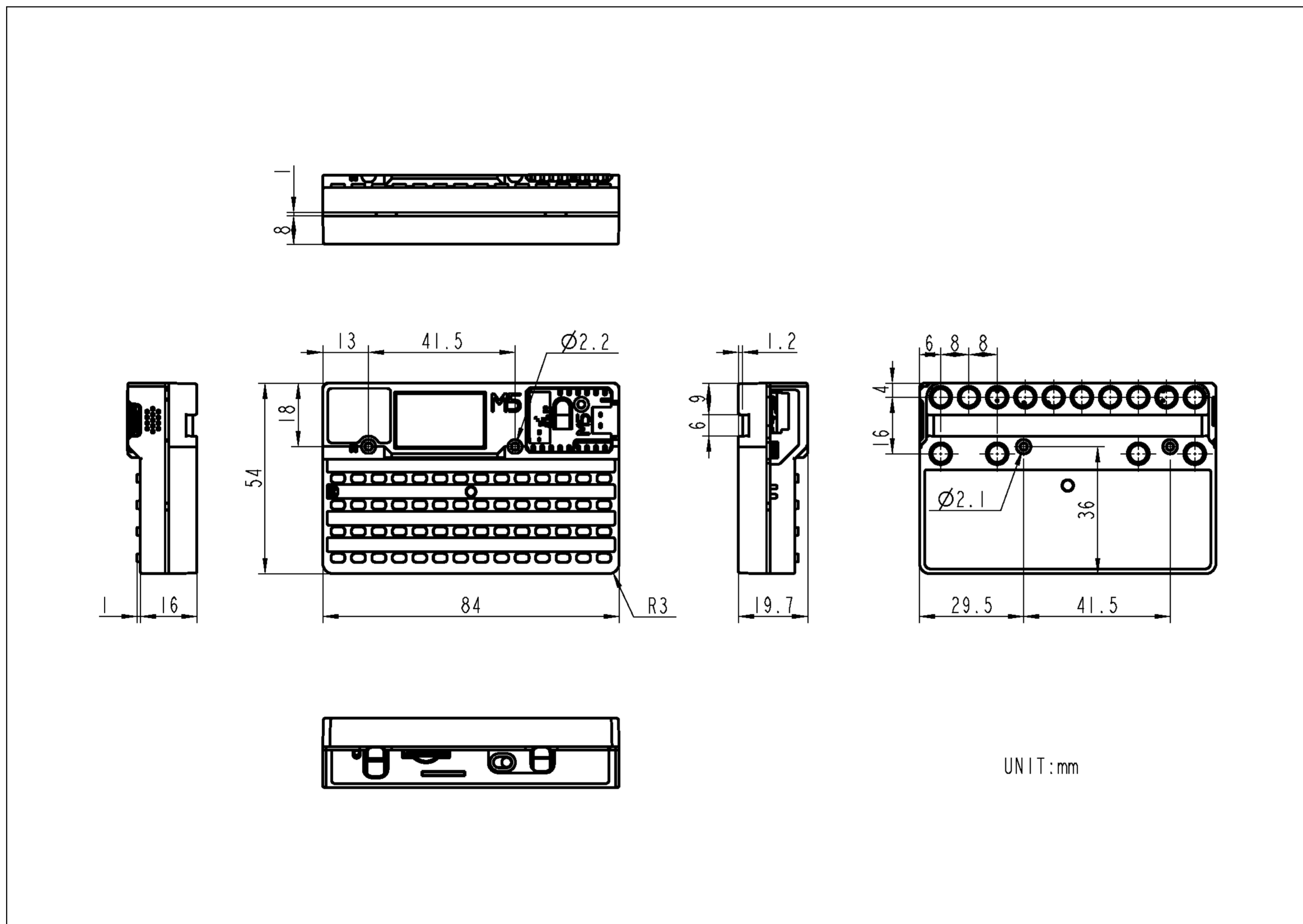
Keyboard&Battery Detect

ESP32S3 Chip	G10	G7/G6/G5/G4/G3/G15/G13	G11/G9/G8
Battery Detect(ADC)	ADC		
74HC138		Y7-Y0	A2/A1/A0

Speaker&IR

ESP32S3 Chip	G41	G42	G43	G44
NS4168 (Speaker)	BCLK	SDATA	LRCLK	
IR				IR

Module Size



Examples

Arduino

- [Cardputer Arduino Library](#)

Example

Example

- [button](#)
- [buzzer](#)
- [display](#)
- [keyboard](#)
- [mic](#)

| Video

- [Introduction of Cardputer](#)