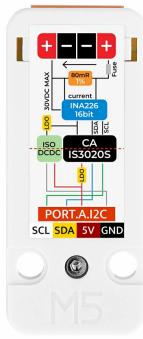
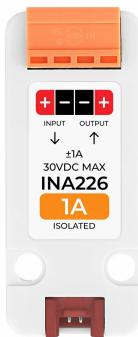


Unit INA226-1A

SKU:U200-1A





Description

Unit INA226-1A is a fully isolated high-precision current, voltage, and power measurement unit, suitable for scenarios measuring DC 0 ~ 30V voltage and up to 1A current, supporting simultaneous voltage and current measurements. Users can read key parameters such as current, voltage, and power obtained by this unit via the I2C communication interface, supporting multiple main control platforms. It also integrates an isolated power module and I2C signal isolator, achieving complete electrical isolation between the measurement end and the main control end, and features a self-resetting fuse that can automatically blow when the current range is exceeded, effectively ensuring the safety of equipment and personnel, improving system anti-interference ability, and is suitable for a variety of electrical parameter acquisition application scenarios such as power management, battery monitoring, and industrial safety.

Features

- Integrated 16-bit high-precision ADC
- Current, voltage, and power integrated measurement
- ±1A range, bidirectional current
- Wide voltage input (DC 0 ~ 30V)
- I2C communication interface
- Power and signal isolation
- Development Platform:
 - Arduino
 - UIFlow2

Includes

- 1 x Unit INA226-1A
- 1 x HY2.0-4P Grove Cable (20cm)
- 1 x VH3.96-4P Terminal

Applications

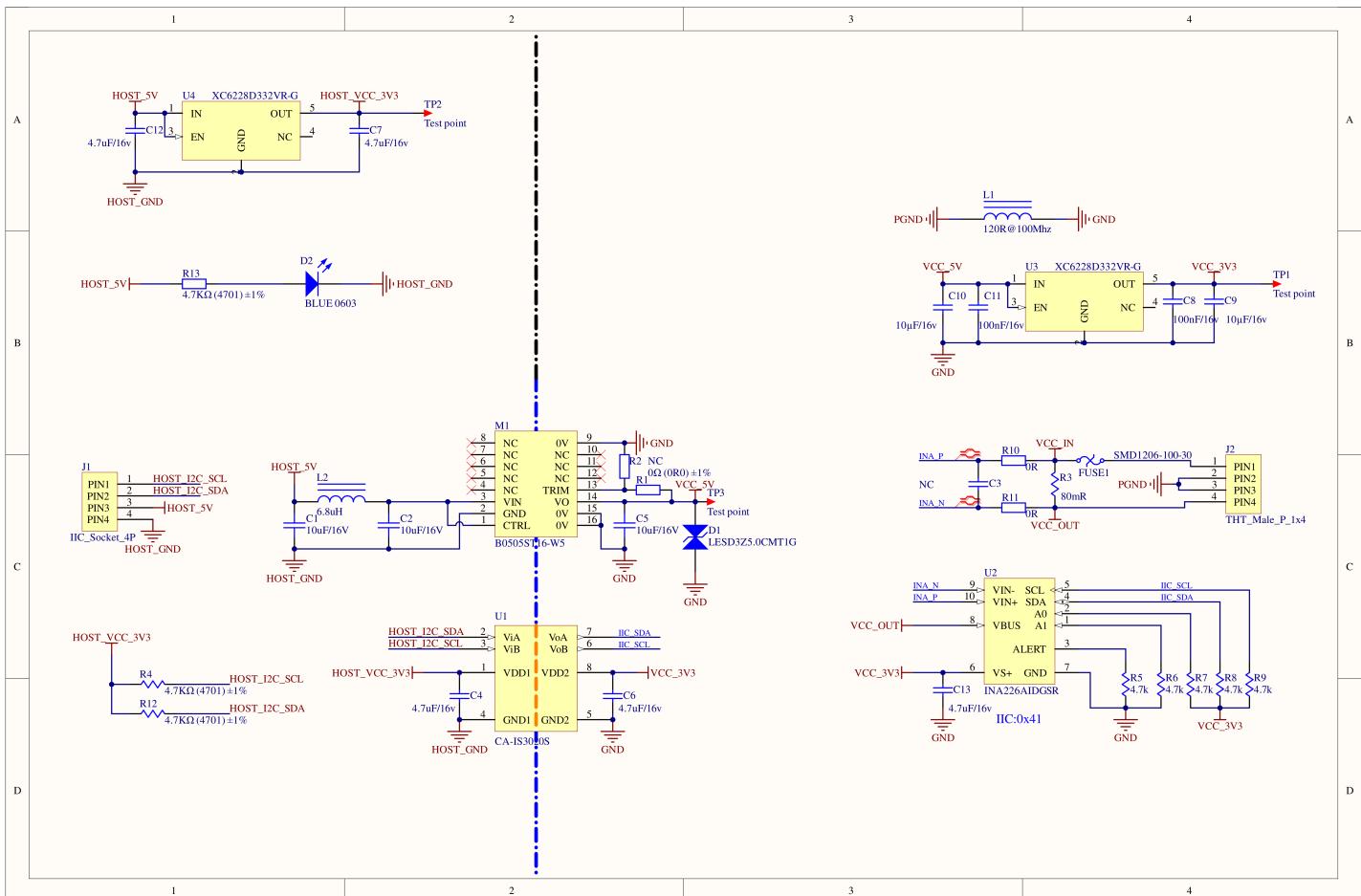
- Power monitoring
- Power consumption analysis
- Motor control current feedback

Specifications

| Specification | Parameter |
|-------------------------|---|
| Power Detection IC | INA226, high-precision, bidirectional current / power monitoring IC |
| Voltage Detection Range | DC 0 ~ 30V |
| Current Detection Range | ±1A (bidirectional current measurement) |
| Communication Interface | I2C @0x41 |
| Operating Current | DC 5.01V@16.55mA |
| Product Size | 58.0 x 24.0 x 10.2mm |
| Product Weight | 8.5g |
| Package Size | 138.0 x 93.0 x 11.2mm |
| Gross Weight | 16.7g |

Schematics

- Unit INA226-1A Schematics PDF



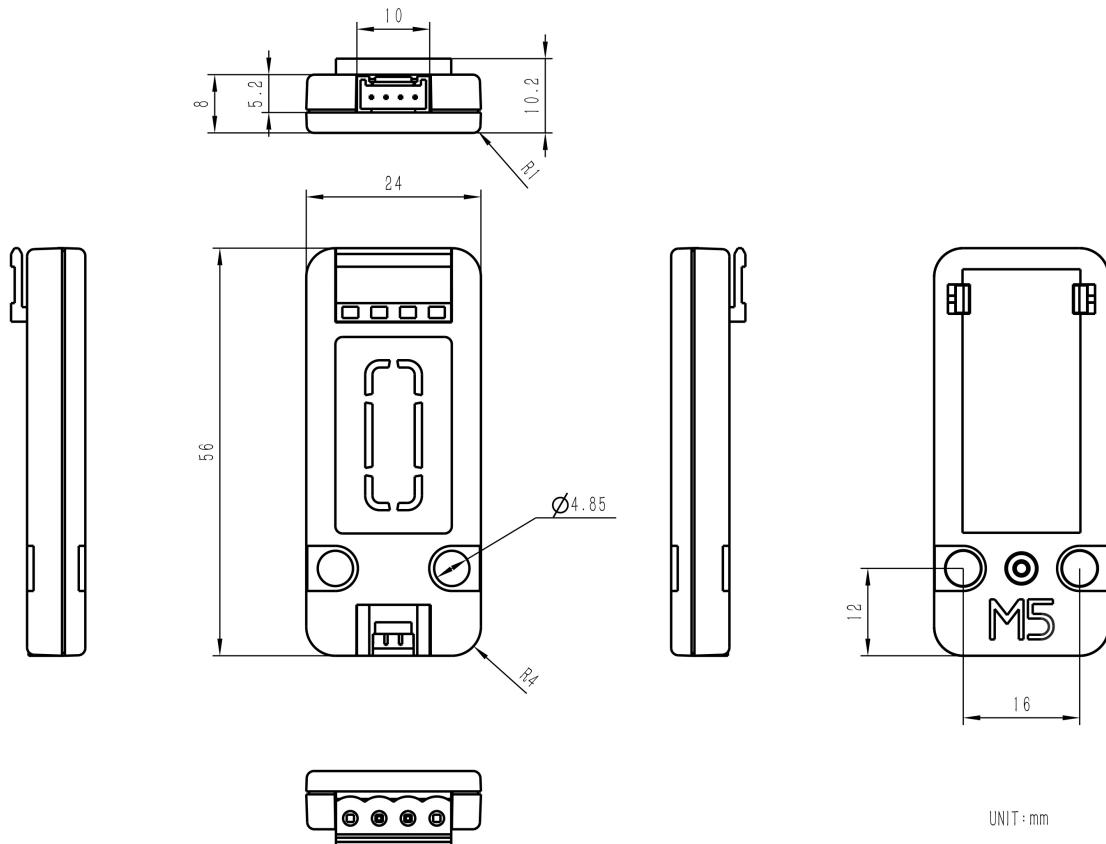
PinMap

HY2.0-4P

| HY2.0-4P | Black | Red | Yellow | White |
|----------|-------|-----|--------|-------|
| PORT.A | GND | 5V | SDA | SCL |

Model Size

- Unit INA226-1A Model Size PDF



Datasheets

- [INA226 Datasheet](#)

Softwares

Arduino

- [Unit INA226-10A / Unit INA226-1A Arduino Tutorial](#)
- [Unit INA226-1A Arduino Test Program](#)

Video

- [Unit INA226-10A / Unit INA226-1A Feature Introduction](#)

[U200_U200-1A_video.mp4](#)

Product Comparison

Product Compare



Unit INA226-1A

Unit INA226-10A

| Range | ±1A, bidirectional current | ±10A, bidirectional current |
|--------------------|----------------------------|-----------------------------|
| Shunt Resistor | 80mΩ | 5mΩ |
| Current Resolution | 32µA | 0.32mA |