

Geekworm G469

Geekworm G469 GPIO Terminal Block Breakout Board User Manual

Model: G469

1. INTRODUCTION

The Geekworm G469 GPIO Terminal Block Breakout Board provides a convenient and reliable solution for accessing the General Purpose Input/Output (GPIO) pins of your Raspberry Pi. This board simplifies wiring by converting the standard 40-pin GPIO header into screw terminals, making it ideal for prototyping, educational projects, and industrial applications.

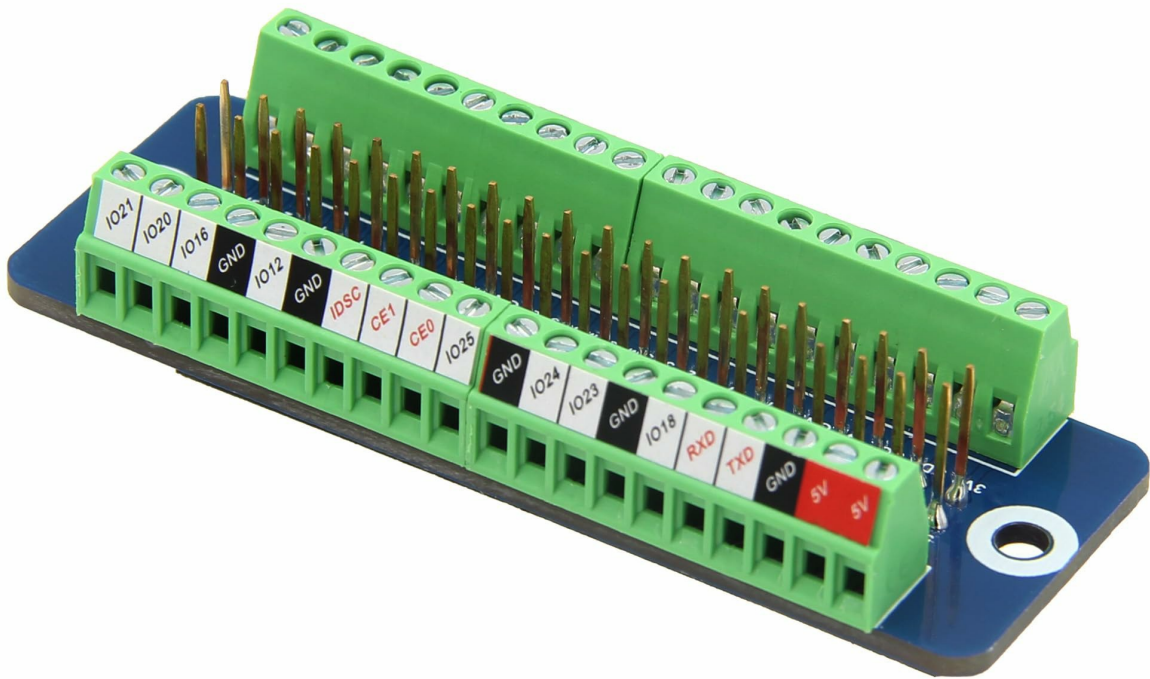


Figure 1.1: General view of the Geekworm G469 GPIO Terminal Block Breakout Board.

2. PRODUCT OVERVIEW

The G469 breakout board is designed for ease of use and durability. It features clearly labeled pins and high-quality screw terminals to ensure secure connections. The compact design allows for integration into various projects without occupying excessive space.

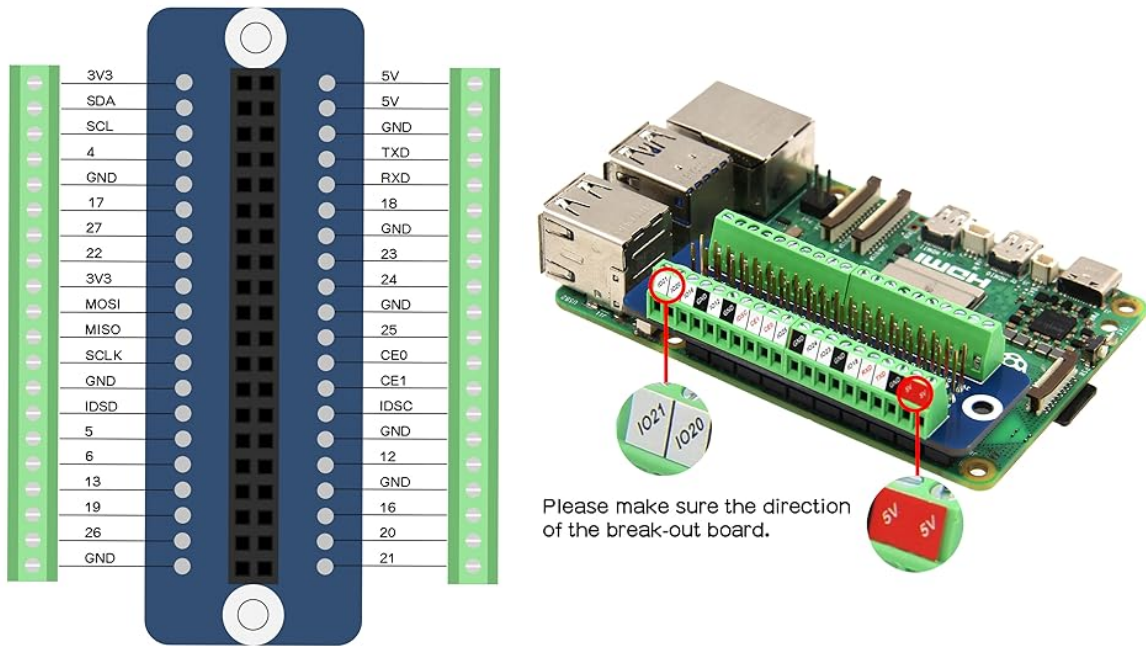


Figure 2.1: Detailed close-up of the G469 board, showing the screw terminals and pin headers.

3. FEATURES

- **Mini GPIO Screw Terminal Block Breakout Board:** Provides convenient access to Raspberry Pi GPIO pins.
- **Easy and Clear Identification:** Includes a pin definition sticker and silkscreen labels for each pin's function, simplifying wiring.
- **Industrial Terminal Design:** Equipped with high-quality industrial terminals for stable and reliable connections.

4. COMPATIBILITY

The Geekworm G469 GPIO Terminal Block Breakout Board is compatible with a wide range of Raspberry Pi models, including:

- Raspberry Pi 4B
- Raspberry Pi 3B+
- Raspberry Pi 3B
- Raspberry Pi 2B
- Raspberry Pi Zero 2W
- Other Raspberry Pi models with a standard 40-pin GPIO header.

5. PACKAGE CONTENTS

The package includes the following item:

- 1 x Geekworm G469 GPIO Terminal Block Breakout Board

6. SETUP INSTRUCTIONS

Follow these steps to set up your G469 GPIO Terminal Block Breakout Board:

1. **Identify Raspberry Pi GPIO Header:** Locate the 40-pin GPIO header on your Raspberry Pi board.
2. **Align the Breakout Board:** Carefully align the female header of the G469 breakout board with the GPIO pins on your Raspberry Pi. Ensure the orientation is correct, matching the 5V and GND pins as indicated on the breakout board's silkscreen.



Figure 6.1: Top view of the G469 board showing clear pin labels for easy identification.

3. **Connect the Board:** Gently press the breakout board onto the Raspberry Pi's GPIO header until it is securely seated.

7. OPERATING INSTRUCTIONS

Once the G469 breakout board is physically connected to your Raspberry Pi and external components are wired, you can begin operating your project. The board acts as a direct extension of the Raspberry Pi's GPIO pins, allowing you to interact with them using standard Raspberry Pi programming libraries (e.g., RPi.GPIO in Python).

7.1. Pinout Diagram

The following diagram illustrates the pin assignments for the G469 board, corresponding to the Raspberry Pi's 40-pin GPIO header:

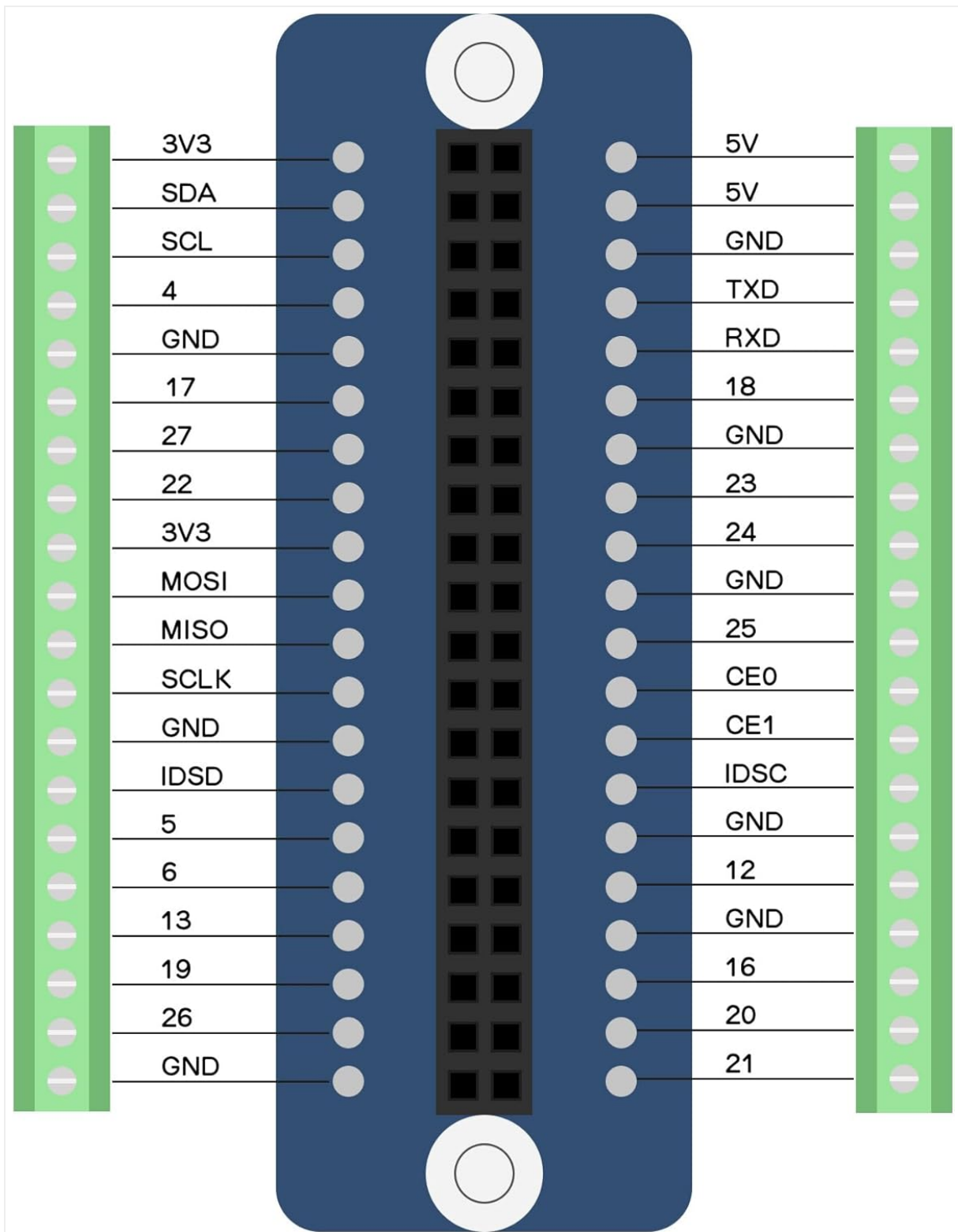


Figure 7.1: Pinout diagram of the G469 board, showing the mapping of Raspberry Pi GPIO pins to the screw terminals.

Always double-check the pin labels on the board and the diagram before making connections to prevent damage to your Raspberry Pi or connected devices.

7.2. Wiring Best Practices

- Ensure all power to the Raspberry Pi and connected components is off before making or changing any wiring connections.
- Use appropriate wire gauges for your application.
- Tighten screw terminals sufficiently to ensure a good electrical connection, but do not overtighten.
- Verify all connections against the pinout diagram before applying power.

8. MAINTENANCE

The Geekworm G469 GPIO Terminal Block Breakout Board requires minimal maintenance. To ensure optimal performance and longevity:

- Keep the board clean and free from dust and debris. Use a soft, dry brush or compressed air for cleaning.
- Avoid exposing the board to extreme temperatures, humidity, or corrosive environments.
- Periodically check screw terminal connections to ensure they remain tight and secure.
- Handle the board by its edges to avoid touching components, especially when powered.

9. TROUBLESHOOTING

If you encounter issues with your G469 GPIO Terminal Block Breakout Board, consider the following troubleshooting steps:

- **No Connection/Intermittent Connection:**
 - Ensure the breakout board is fully seated on the Raspberry Pi's GPIO header.
 - Check that all wires are securely fastened in the screw terminals. Loose connections can cause intermittent behavior.
 - Verify the correct pin assignments according to the pinout diagram (Figure 7.1).
- **Incorrect Pin Functionality:**
 - Double-check your wiring against the pinout diagram. A common error is connecting to an adjacent pin.
 - Ensure your software code correctly references the GPIO pin numbers you are using.
- **Board Not Powering On (if applicable):**
 - The G469 is a passive breakout board and does not require external power. If your Raspberry Pi is not powering on, the issue is likely with the Raspberry Pi's power supply or the Pi itself, not the breakout board.
- **Physical Damage:**
 - Inspect the board for any visible damage, such as bent pins, cracked solder joints, or burnt components. If damage is found, discontinue use.

If these steps do not resolve your issue, please contact Geekworm customer support for further assistance.

10. SPECIFICATIONS

Specification	Value
Model Number	G469
Brand	Geekworm
Product Dimensions	6.5 x 2.5 x 2.5 cm
Item Weight	23 g
Country of Origin	China
Specific Product Use	For Raspberry Pi DIY
Included Components	GPIO Terminal Block Breakout Board

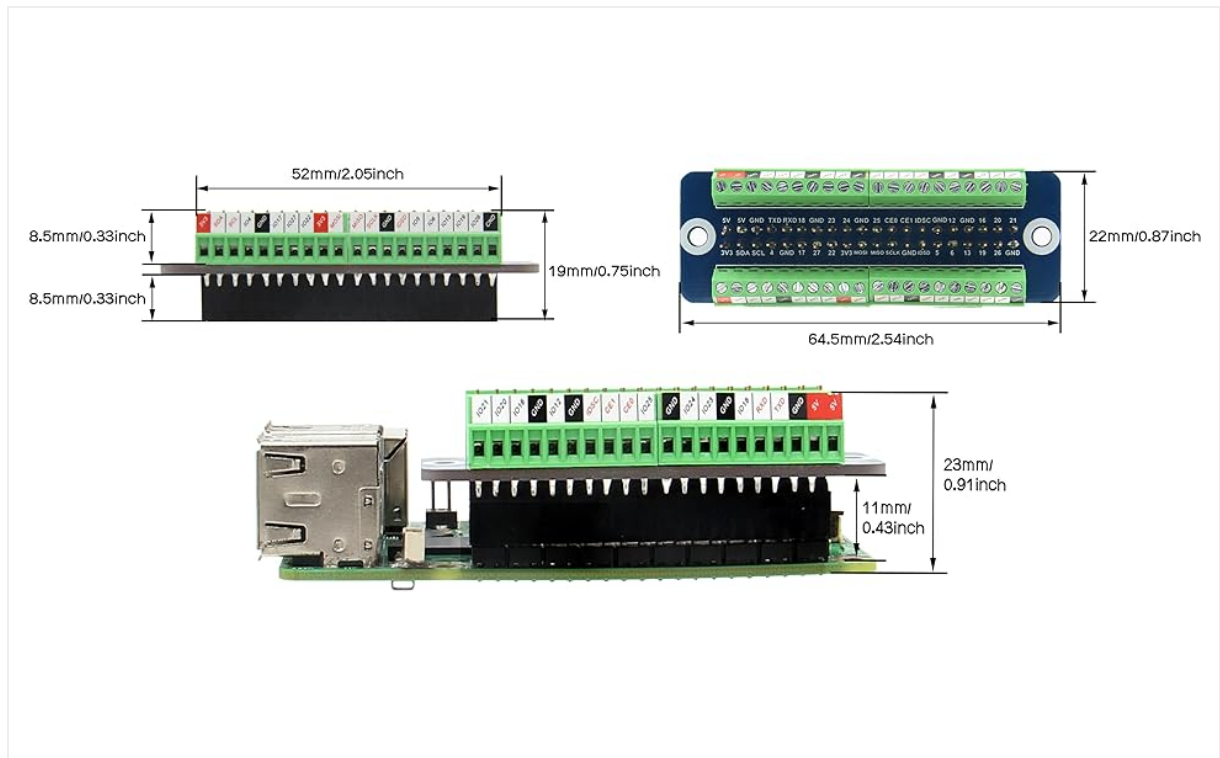


Figure 10.1: Detailed views of the G469 board, including dimensions and component layout.

11. WARRANTY AND SUPPORT

Geekworm products are designed for quality and reliability. For information regarding warranty coverage, technical support, or returns, please refer to the official Geekworm website or contact your retailer. Keep your purchase receipt for warranty claims.

For direct support, you may visit the Geekworm store on Amazon: [Geekworm Store](#)