Bewinner Night Vision Camera Module Board

Bewinner Night Vision Camera Module Board User Manual

Model: Night Vision Camera Module Board

1. Introduction

This manual provides instructions for the Bewinner Night Vision Camera Module Board, designed for use with Raspberry Pi B 3/2. This 5-megapixel camera module features a fixed lens and connects via a 15 cm flat ribbon cable to the 15-pin MIPI Camera Serial Interface (CSI) connector on your Raspberry Pi. It supports image output up to 2592 x 1944 pixels.

2. Safety Information

Handle the camera module with care to avoid damage to sensitive electronic components. Avoid exposing the module to static electricity, extreme temperatures, moisture, or direct sunlight. Disconnect power from your Raspberry Pi before connecting or disconnecting the camera module. Keep out of reach of children.

3. Package Contents

The package should contain the following items:

- 1 x Bewinner Night Vision Camera Module
- 1 x 15cm Flat Ribbon Cable
- 1 x Lens Cap

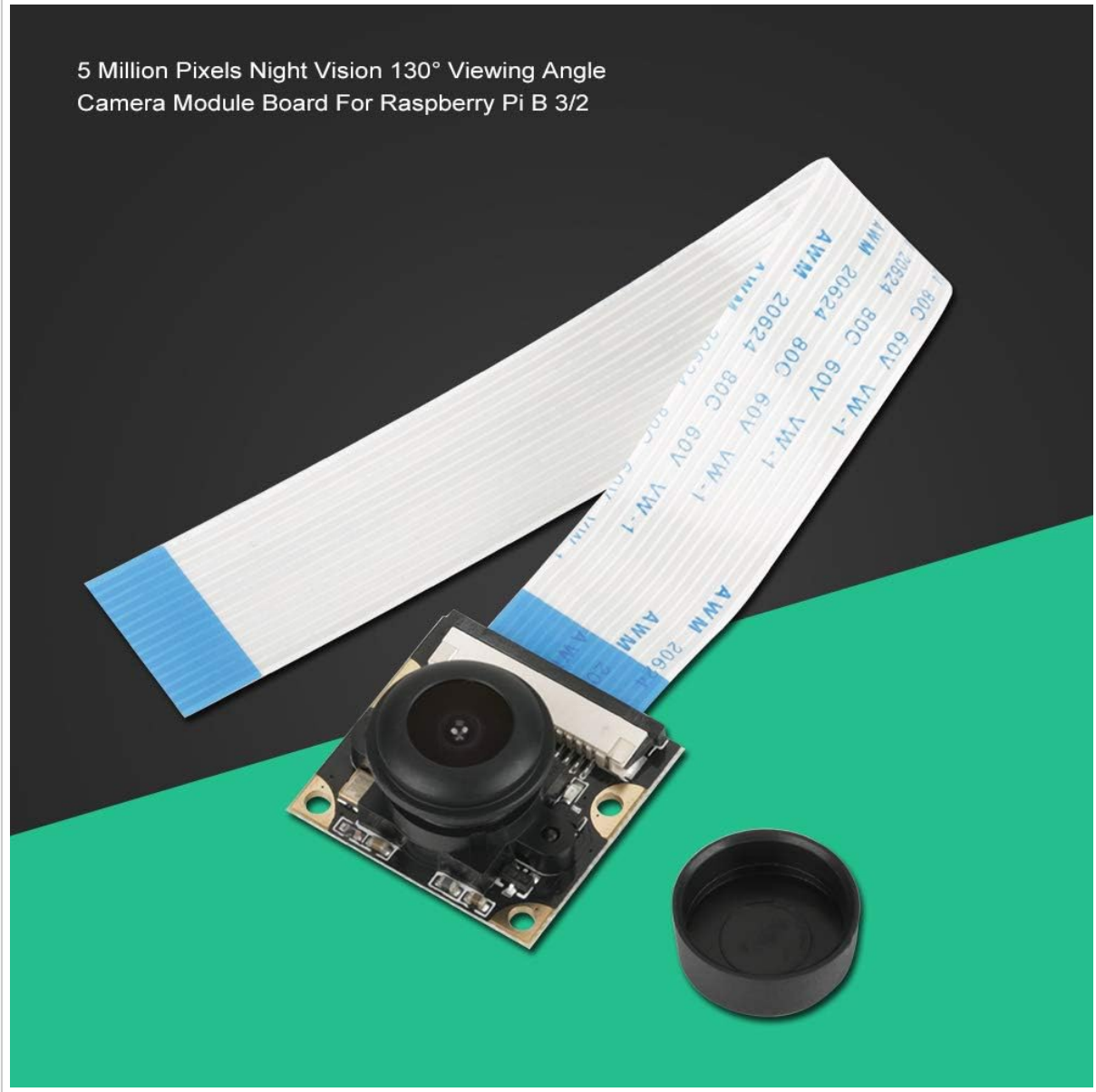

Image: Contents of the Bewinner Night Vision Camera Module package, including the camera board, ribbon cable, and a protective lens cap.

4. Specifications

Feature	Detail
Pixels	5 Million Pixels
Compatible With	Raspberry Pi B 3/2
Chip	OV5647
Highest Resolution	2592 x 1944
Viewing Angle	130°
Module Dimensions (L x W x H)	2.5 x 2.4 x 1.7 cm (0.98 x 0.94 x 0.67 inches)
Weight	7g
Interface	15-pin MIPI Camera Serial Interface (CSI)

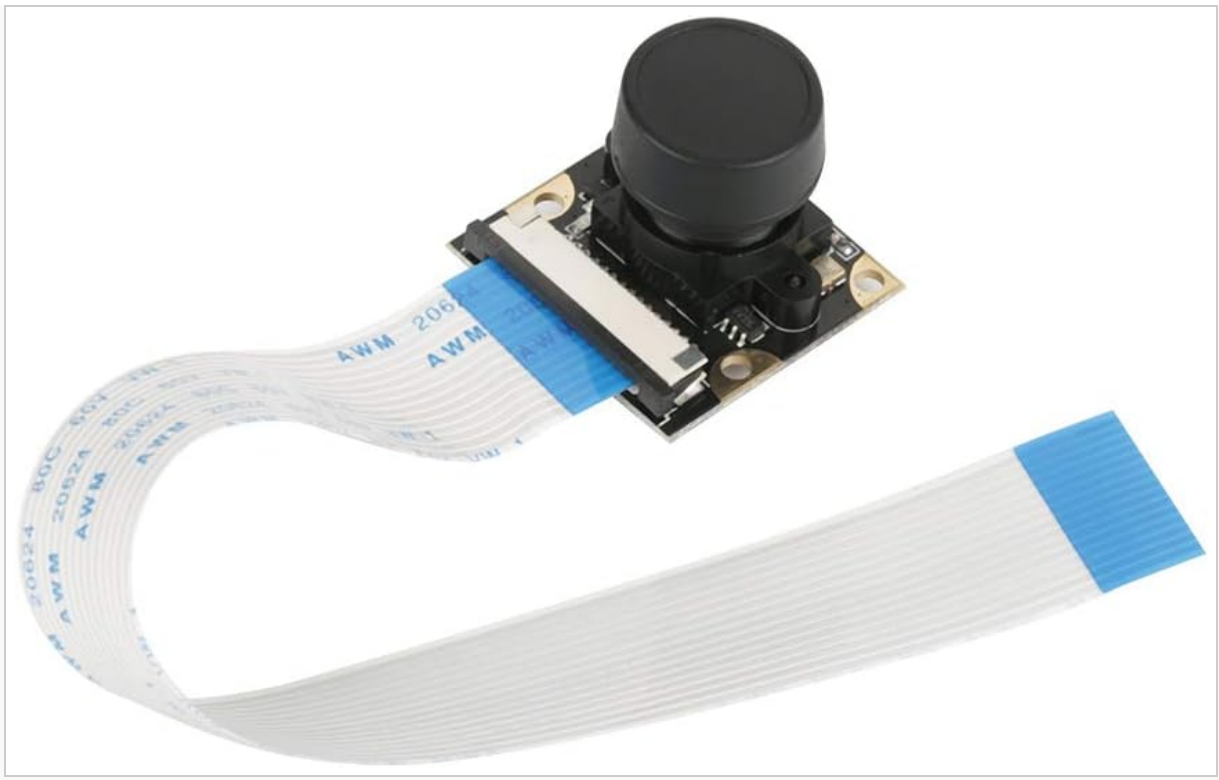

Image: Detailed dimensions of the camera module, showing its compact size.

5. Setup and Installation

Follow these steps to connect the camera module to your Raspberry Pi:

1. Ensure your Raspberry Pi is powered off and disconnected from its power source.
2. Locate the CSI connector on your Raspberry Pi board. This is typically a long, narrow slot.
3. Gently pull up the plastic clip on the CSI connector.
4. Insert the 15-pin flat ribbon cable from the camera module into the CSI connector. Ensure the silver contacts on the ribbon cable are facing the correct direction (usually towards the HDMI port on the Raspberry Pi, but refer to your Raspberry Pi's documentation for exact orientation).

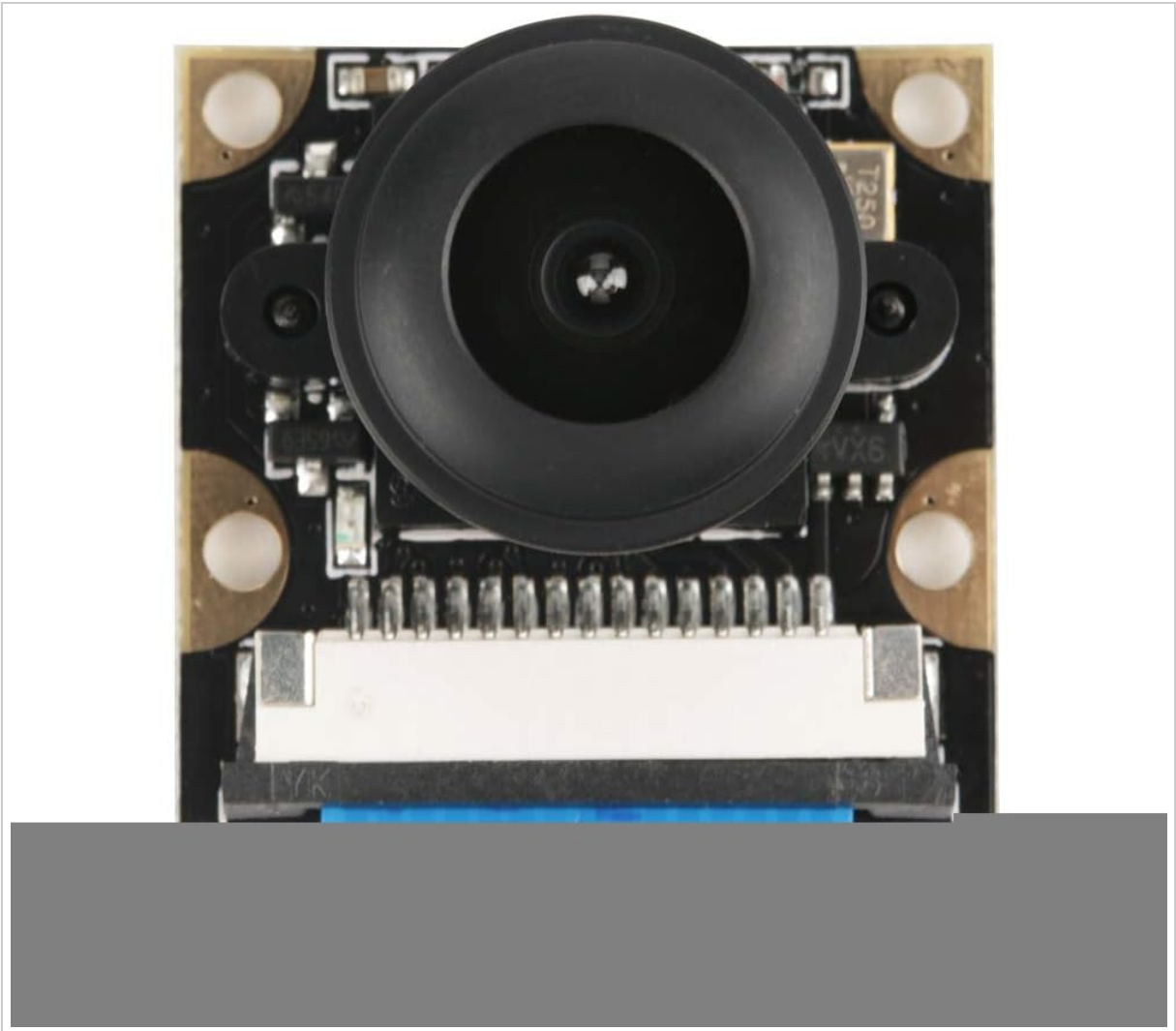

Image: Top-down view of the camera module's connector, showing the slot for the ribbon cable.

5. Push the plastic clip back down to secure the ribbon cable in place.
6. Connect the other end of the ribbon cable to the camera module's connector, ensuring proper orientation and secure connection.

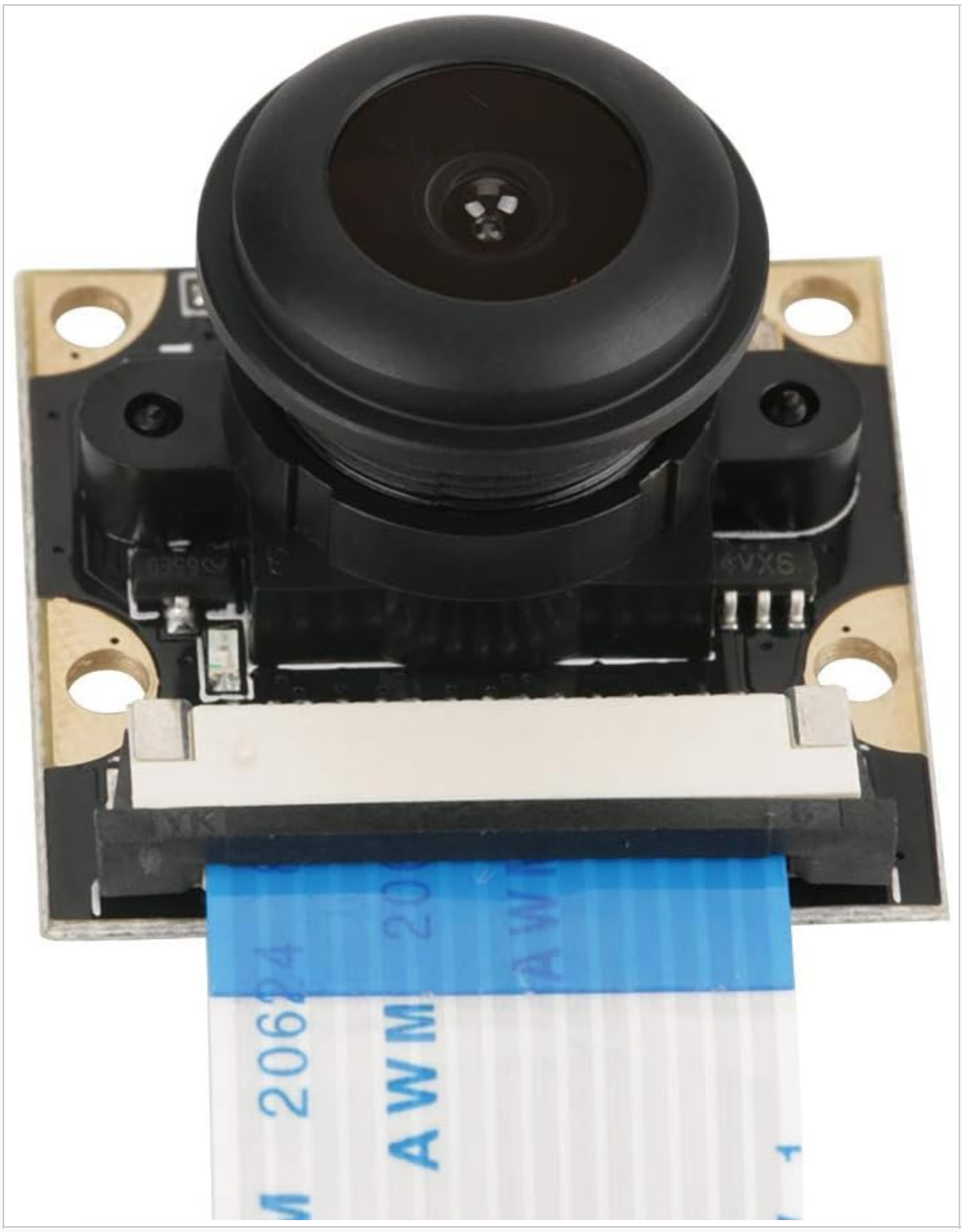

Image: The camera module with the flat ribbon cable securely connected, ready for installation into a Raspberry Pi.

7. Once the camera module is securely connected, you can reconnect power to your Raspberry Pi.

6. Operating Instructions

After physical installation, you will need to enable and configure the camera module through your Raspberry Pi's operating system (e.g., Raspberry Pi OS).

1. Boot your Raspberry Pi.
2. Open a terminal or access the desktop environment.
3. Run `sudo raspi-config`.
4. Navigate to **Interface Options** > **Camera** and enable the camera module.
5. Reboot your Raspberry Pi when prompted.
6. To test the camera, you can use the `raspistill` command (for still images) or `raspivid` (for video) in

the terminal. For example, to take a still image: `raspistill -o image.jpg`.

7. Refer to the official Raspberry Pi documentation for advanced camera usage and programming.

7. Maintenance

Keep the camera lens clean using a soft, lint-free cloth. Avoid using abrasive materials or chemical cleaners. Store the module in a dry, dust-free environment when not in use. Do not attempt to disassemble the module, as this will void any potential warranty and may damage the components.

8. Troubleshooting

- **Camera not detected:**
  - Ensure the ribbon cable is correctly and securely inserted into both the camera module and the Raspberry Pi's CSI connector. Check the orientation of the cable.
  - Verify that the camera interface is enabled in `raspi-config`.
  - Ensure your Raspberry Pi OS is up to date.
- **Poor image quality:**
  - Check the lens for smudges or dust and clean gently.
  - Ensure adequate lighting for optimal performance, especially for night vision features.
  - Adjust camera settings (e.g., exposure, white balance) if using advanced software.
- **Module not powering on:**
  - Confirm the Raspberry Pi is receiving power.
  - Re-check all connections.

9. Warranty and Support

Specific warranty information for this Bewinner product is not provided in this manual. For warranty claims or technical support, please contact the retailer or manufacturer directly. Refer to the Bewinner official website or your purchase documentation for further details.