FLIPSKY FSESC6.6 Plus

Flipsky Dual FSESC6.6 Electronic Speed Controller User Manual

1. Introduction

The Flipsky Dual FSESC6.6 Plus is an advanced Electronic Speed Controller (ESC) designed for high-performance electric vehicles such as e-bikes, ESK8s, longboards, and DIY skateboarding projects. This manual provides essential information for the proper installation, configuration, and operation of your ESC.

2. Safety Information

- **Firmware Compatibility:** It is recommended to keep firmware 5.2 from the factory. New firmware upgrades may damage the ESC.
- **PCB Protection:** Do not remove the shrink wrap. This protects the PCB electronic components from impurities or metals, which could result in short circuits or ESC damage.
- Ensure all connections are secure and properly insulated to prevent electrical hazards.
- Always wear appropriate safety gear when operating electric vehicles.

3. Package Contents

Verify that all items are included in your package:

- 1x Dual FSESC6.7+Heatsink
- 2x ESC Sensor Wires
- 1x LED Button
- 1x Micro USB Cable
- 1x Instruction Manual

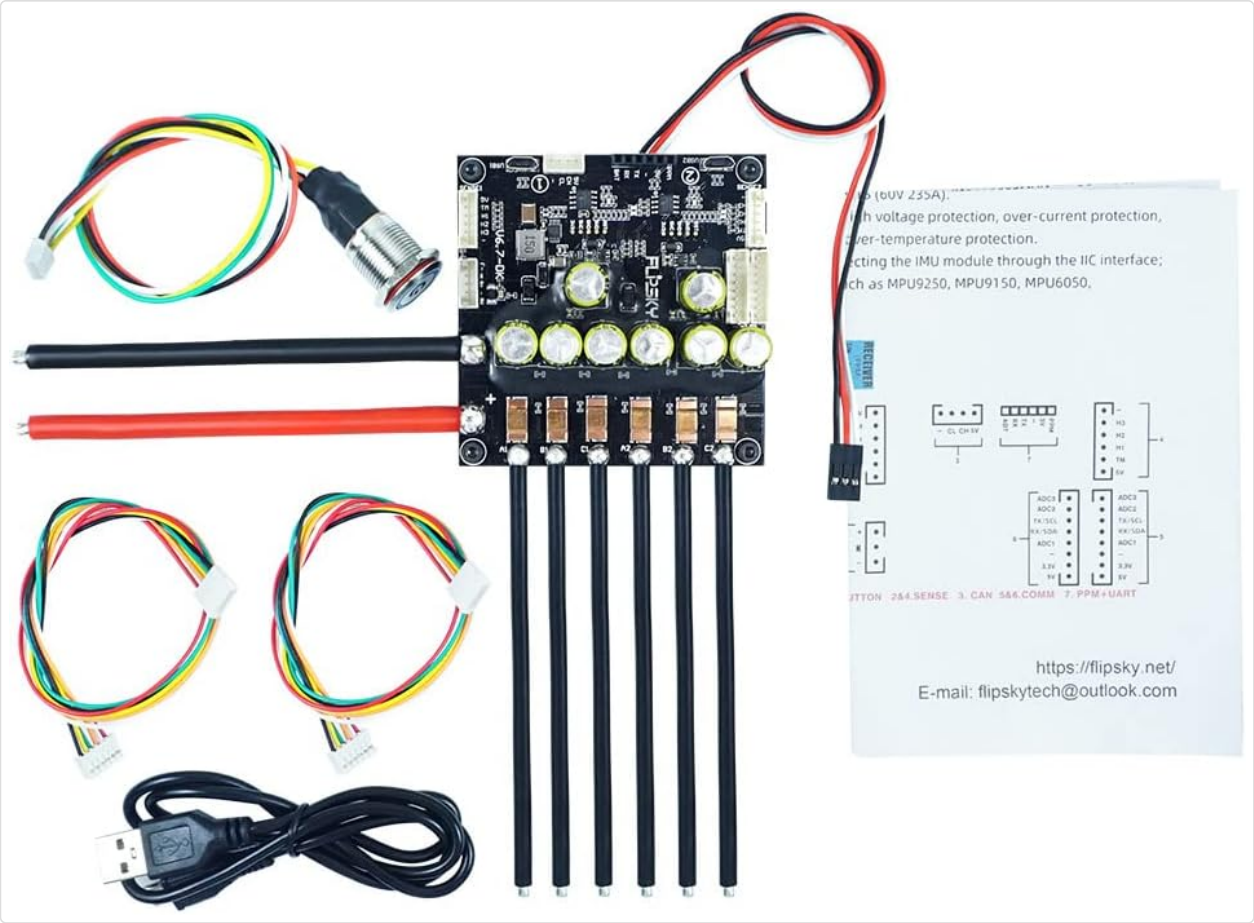

Figure 3.1: Included components of the Flipsky Dual FSESC6.6 Plus. This image displays the ESC with heatsink, sensor wires, LED button, Micro USB cable, and the manual.

Unboxing Video

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Video 3.1: This video demonstrates the unboxing process of a Flipsky ESC, showing how the components are packaged and removed from the box.

4. Product Features

- Dual FSESC6.7 Plus (Pro switch) based on Dual FSESC6 with Power on/off by pressing the button.
- Changed the USB port soldering process to SMT soldering instead of manual soldering.
- Changed the big capacitors to SMT mounting capacitors, and added more MOSFETs on the bottom side.
- Added CAN bus connector, for more convenient 4WD setup.

Figure 4.1: Top view of the Flipsky Dual FSESC6.6 Plus ESC, highlighting its compact design and component layout.

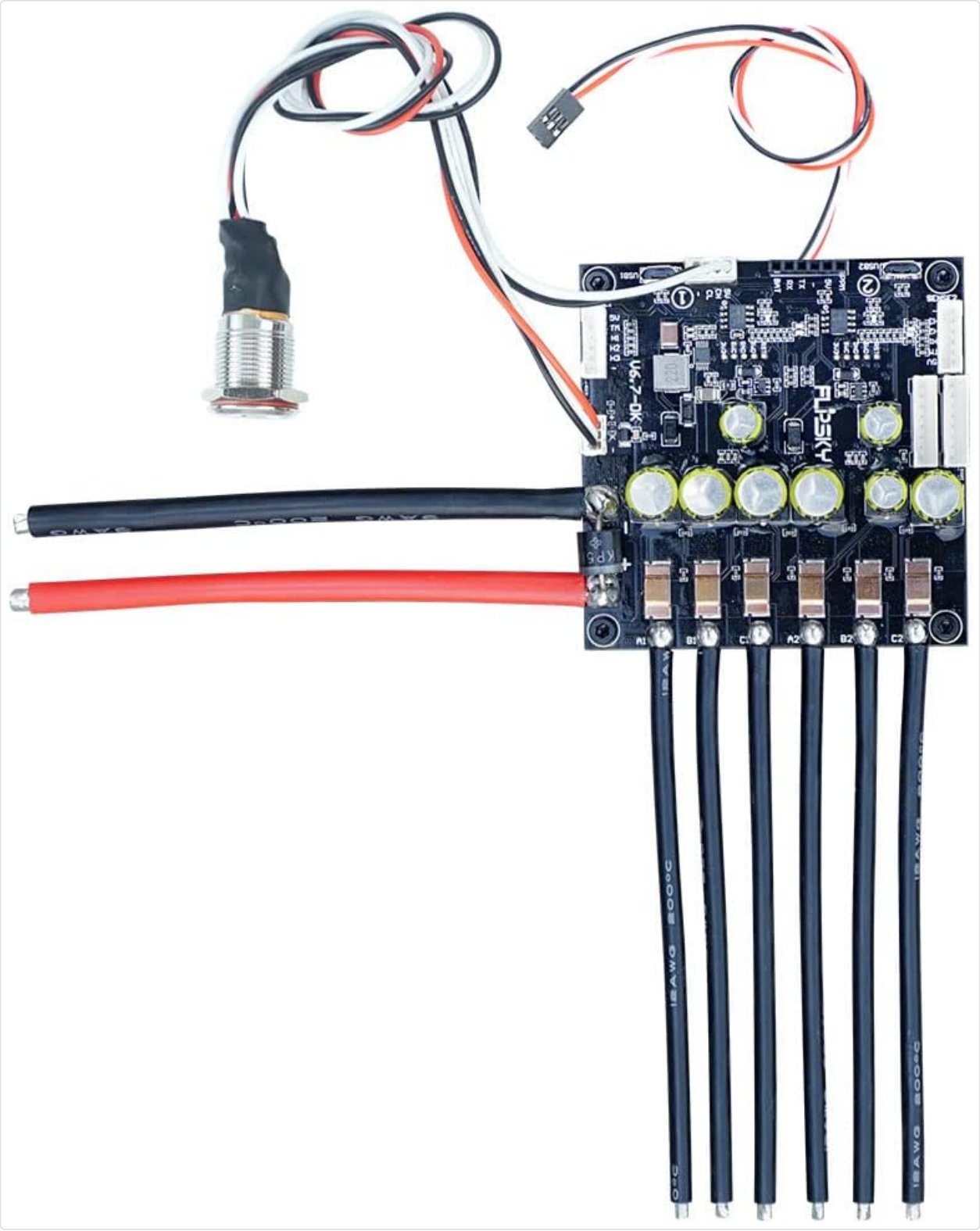

Figure 4.2: Close-up of the ESC circuit board, showing the SMT components and capacitor arrangement.

5. Specifications

Feature	Detail
Model Name	Flipsky Dual FSESC6.7 Plus with Anti-Spark Switch Integrated Based on VESC6 Electric 100A 12S ESC Speed Controller for Electric Skateboard
Part Number	FSESC6.6 Plus

Feature	Detail
Dimensions (L x W x H)	8.03 x 5.63 x 1.54 inches (Package)
Size (including heatsink)	81x77x20mm
Weight	0.32 Kilograms (Package)
Color	Black+Yellow

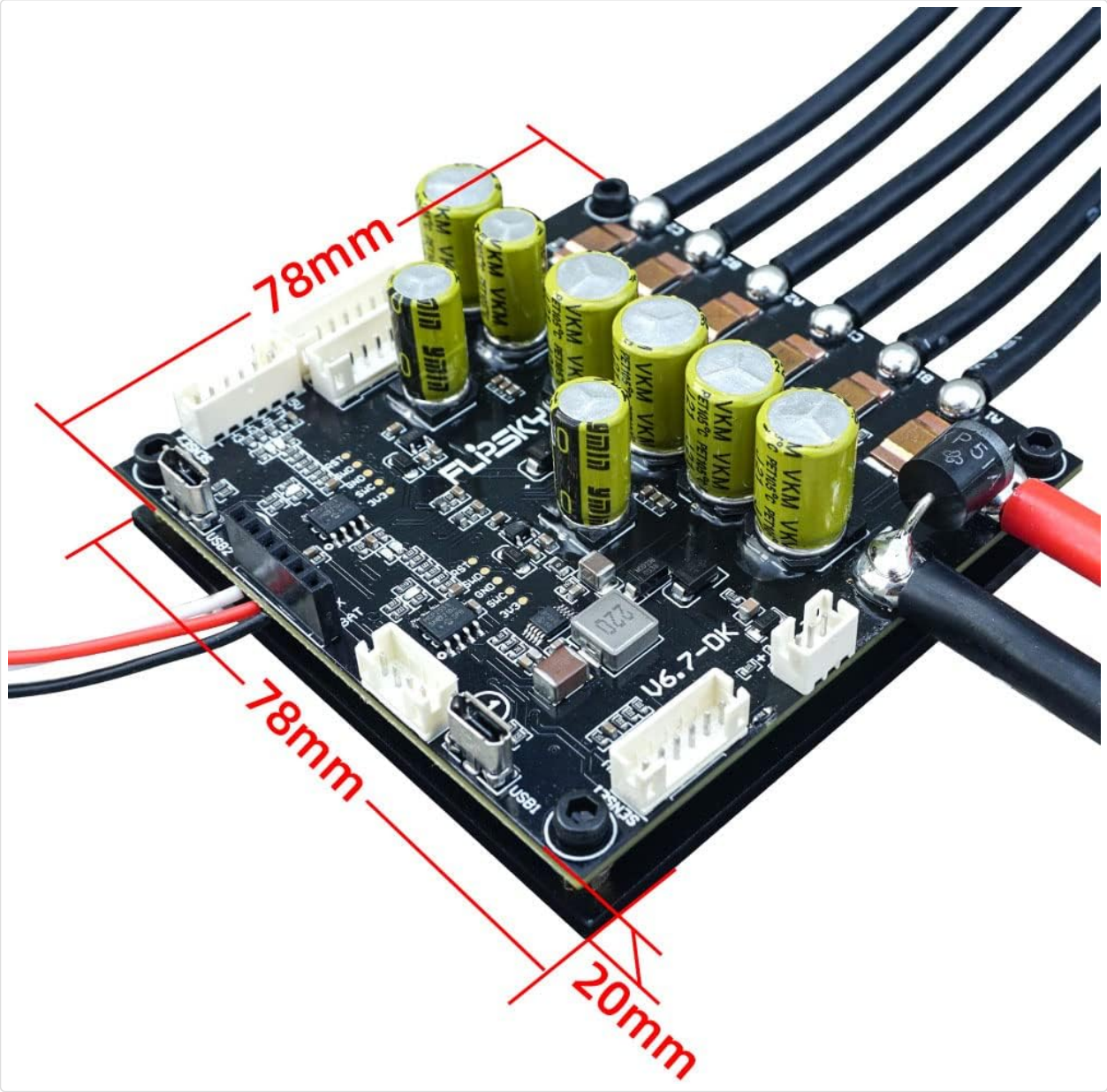

Figure 5.1: Physical dimensions of the Flipsky Dual FSESC6.6 Plus ESC, including length, width, and height.

6. Setup and Installation

6.1 Wiring Connections

Follow these steps to correctly connect the ESC to your system components:

1. Connect the motor phase wires (typically three thick wires) from the ESC to your motors.
2. Connect the hall sensor wires (smaller multi-pin connector) from the ESC to your motors, if applicable.
3. Connect the power switch button to the designated port on the ESC.
4. Connect the battery wires (red for positive, black for negative) to the main power input of the ESC.
5. Connect the remote receiver to the PPM or UART port on the ESC, depending on your remote type.
6. Connect any optional accessories such as brake lights, front lights, or horn to their respective ports on the ESC.

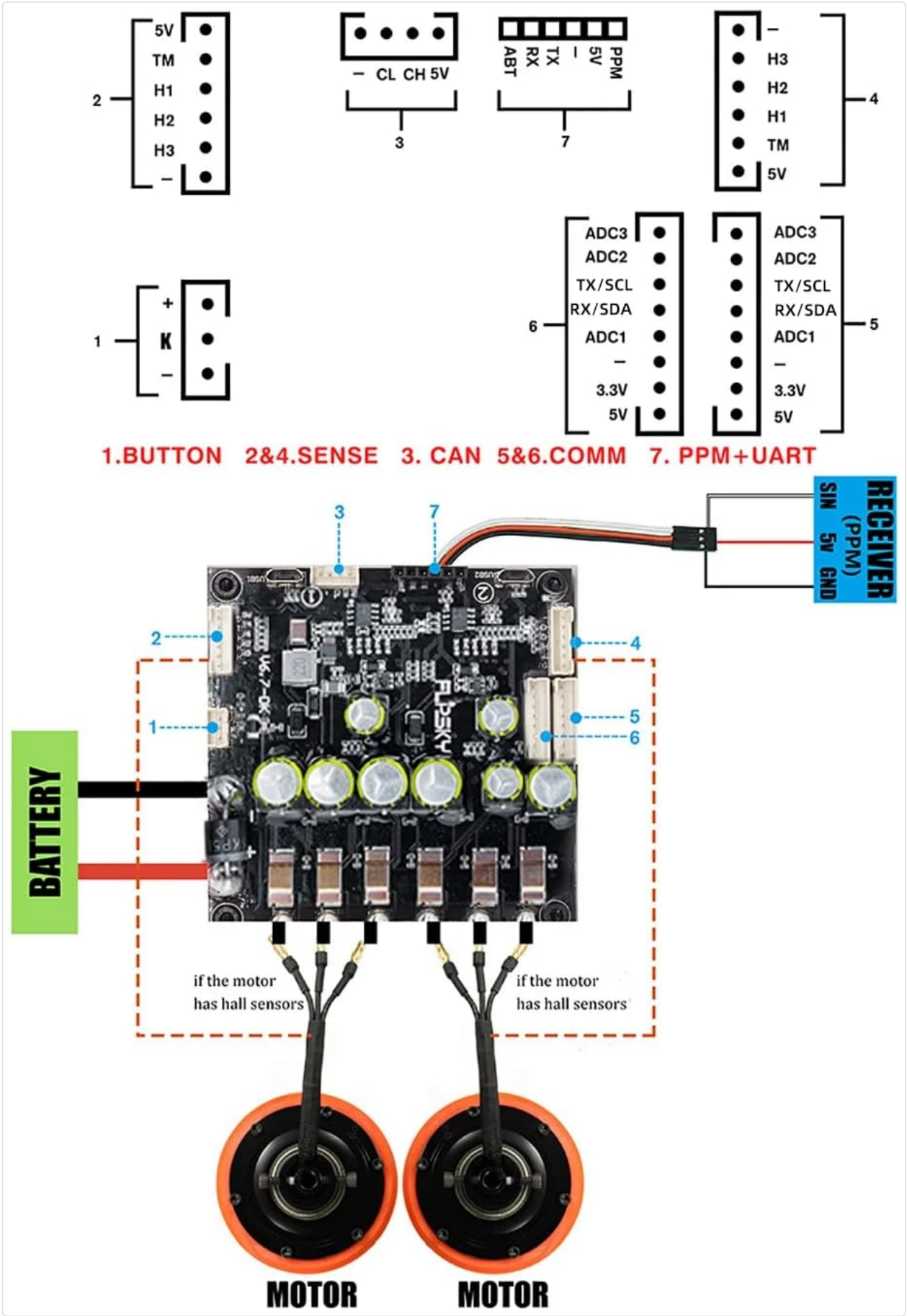

Figure 6.1: Detailed wiring diagram illustrating connections for motors, battery, switch, remote, and accessories.

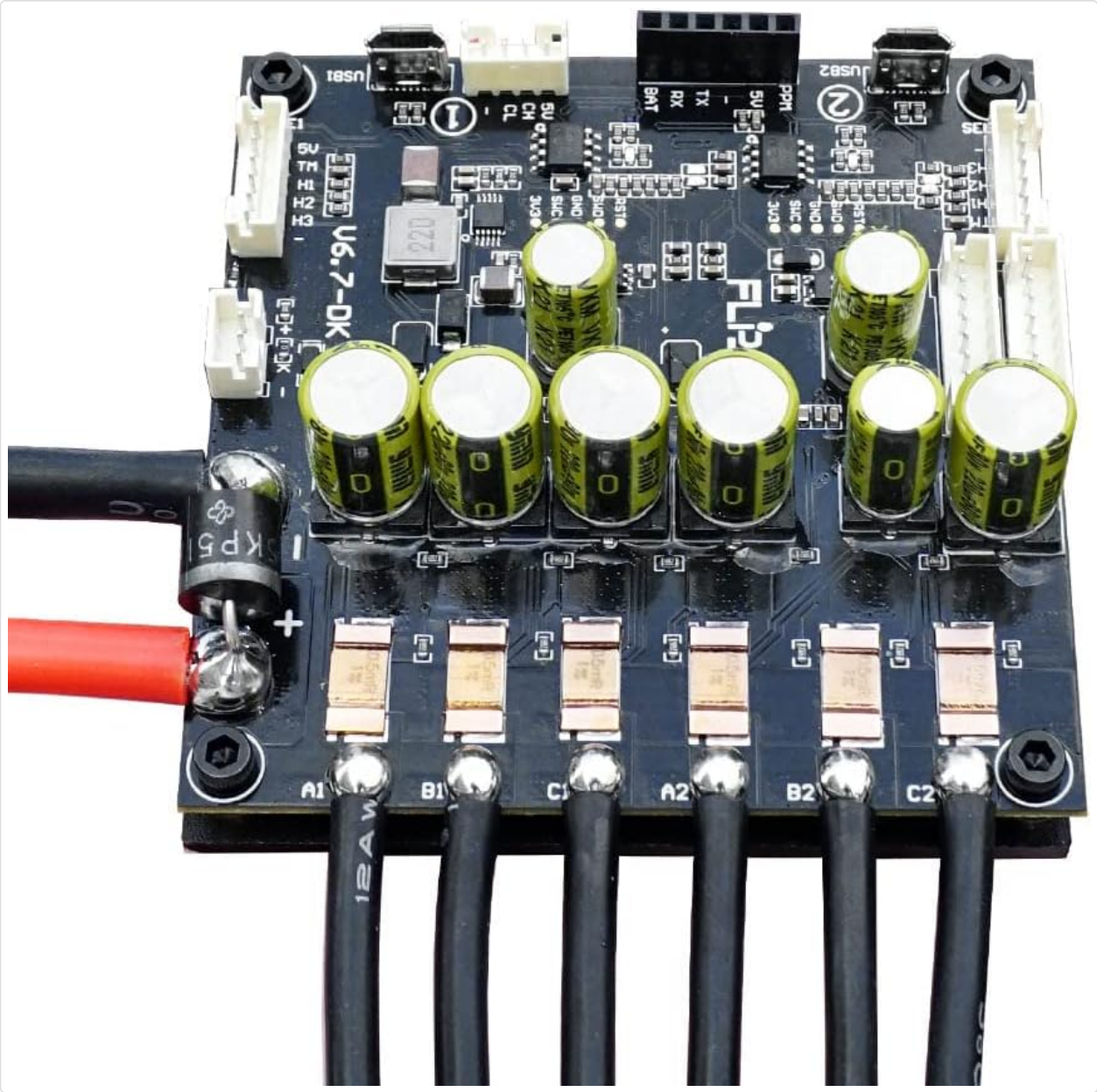

Figure 6.2: Close-up view of the various connection ports on the ESC, showing where to plug in different components.

Wiring Connection Video Guide

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Video 6.1: This video provides a step-by-step guide on connecting the ESC to motors, hall sensors, battery, and other accessories.

6.2 VESC Tool Configuration

After physical connections, configure the ESC using the VESC Tool software:

1. Connect the ESC to your computer via the Micro USB cable.
2. Power on the ESC using the integrated button.
3. Open the VESC Tool software on your computer.
4. Click 'Connect' to establish communication between the VESC Tool and the ESC.
5. Navigate to the 'Motor Setup' tab and set 'Motor Rated Current(A)', 'Li-ion Battery Series(S)', and 'Cell Cut-Off Voltage' according to your motor and battery specifications.
6. Click the 'Identification Button' and confirm to proceed with motor parameter identification.
7. Review the parameter identification results to ensure they are correct.

8. Go to the 'Control Setup' tab and select the appropriate 'Input Signal Type' (e.g., UART for Flipsky remotes).
9. Choose the desired 'UART Control Mode' and 'Extra Interface' options based on your setup (e.g., Current Gear Reverse Brake, Front/Brake Light and Horn).
10. Click 'Write Setup' to save all configurations to the ESC.

VESC Tool Configuration Video Guide

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Video 6.2: This video demonstrates the process of connecting the ESC to VESC Tool, identifying motor parameters, and configuring control settings.

7. Operating Instructions

7.1 Remote Control Operation

After successful VESC Tool configuration, you can operate your electric vehicle using a compatible remote control:

1. Ensure the remote control is paired with the ESC. Confirm the 'Control type' is UART and 'ESC Type' is FTESC on the remote's display.
2. Use the throttle gear to accelerate and brake. Pull down the throttle gear to activate the rear brake light.
3. Short press the remote's power button once to turn the front lights on or off.
4. Press the remote's power button twice quickly to activate or deactivate the horn.

Remote Control Demonstration

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Video 7.1: This video demonstrates the basic functions of the remote control, including throttle, brake, and light/horn activation.

7.2 Riding Demonstration

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Video 7.2: This video shows the ESC in action on an electric skateboard, demonstrating its performance and control during a ride.

8. Maintenance

- Regularly inspect all wiring connections for looseness or damage.
- Keep the ESC and surrounding components clean and free from dust, dirt, and moisture.
- Avoid exposing the ESC to extreme temperatures or direct sunlight for prolonged periods.
- Do not attempt to modify the ESC's hardware or remove the factory-installed shrink wrap.

9. Troubleshooting

- **ESC not responding or locking up:** Check all power and signal connections. Ensure the battery is adequately charged. If using a CAN bus setup, verify the CAN switch is correctly positioned.
- **Motor not recognized by VESC Tool:** Confirm the USB connection is secure and the ESC is powered on. Try restarting the VESC Tool and reconnecting.
- **Unexpected behavior after firmware update:** If you updated the firmware beyond version 5.2 and experience issues, it may be due to incompatibility. Contact Flipsky support for assistance.

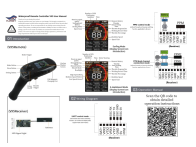
- **Intermittent connection with remote:** Ensure the remote receiver is securely connected to the ESC and that the remote is fully charged and paired.

10. Warranty and Support

The Flipsky Dual FSESC6.6 Plus comes with a 2-month warranty.

For technical support, troubleshooting assistance, or warranty claims, please contact Flipsky customer service directly.

Related Documents - FSESC6.6 Plus

	Flipsky 75100 Pro V2.0 ESC with Aluminum PCB - Technical Datasheet Detailed specifications and wiring diagram for the Flipsky 75100 Pro V2.0 Electronic Speed Controller (ESC) with an aluminum PCB, featuring VESC 75 series compatibility, high voltage support, and multiple control interfaces.
	Flipsky FT85BS ESC Manual V1.4 Detailed specifications, features, and wiring diagram for the Flipsky FT85BS ESC (Electronic Speed Controller) V1.4, designed for electric vehicles and robotics.
	Flipsky FT85BS V2.0 ESC: Technical Specifications and Features Detailed technical specifications, features, and application fields for the Flipsky FT85BS V2.0 ESC, an electronic speed controller for electric vehicles and robotics.
	Flipsky VX4 Pro Remote Controller User Manual Comprehensive user manual for the Flipsky VX4 Pro remote controller, detailing its features, wiring diagrams for PPM and UART control modes, and operation instructions for electric skateboards.
	FLIPSKY VX5 Waterproof Remote Controller User Manual - Features, Wiring, and Operation Comprehensive user manual for the FLIPSKY VX5 waterproof remote controller. Details features, button layouts, display screen information, wiring diagrams for PPM and UART modes, and operational guidance.
	Flipsky VX5 Waterproof Remote Controller User Manual User manual for the Flipsky VX5 waterproof remote controller, detailing its features, wiring diagrams for PPM and UART control modes, and screen display icon explanations.