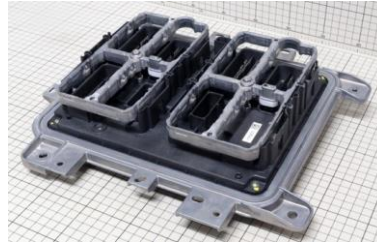


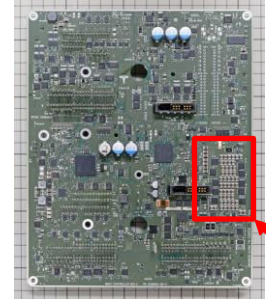
ECU(Right) : mounted in CYBERTRUCK Circuit Analysis report



CYBERTRUCK (from Web info)



Overview of Integrated ECU (Right)



PCB (Top View)

Charge pump circuit with MLCCs

Reference: https://www.tesla.com/ja_jp/cybertruck

Overview

TESLA announced CYBERTRUCK in November 2019.

The price of the vehicle is about \$70000 for the rear-wheel drive (RWD) model, and about \$0.1 million for the highest performance version, the CYBERBEAST. This automobile has attracted attention because of its unique exterior, but it also has a variety of new techniques as the newest model in TESLA. (The company's first 800V system. The auxiliary battery uses 48V system.) As the main controller modules, there are two door controller ECUs for front and rear, and three body controller ECUs for right, left, and rear.

This report is a component connection/circuit analysis report of right Body Controller (ECU) installed in RWD model.

Product features

- Size : 300mm (W) × 325mm (L) × 75mm (H) Weight : 2.1kg
- Air Cooling
- A charge pump type DC-DC converter is used in the voltage conversion circuit between MV (48V system) and LV (12V system).
- A total of over 3,000 components are integrated onto one printed circuit board.
- 0603 Metric MLCCs (i.e. 0201 imperial size) are implemented.
- Function blocks are on this PCB are Internal Power Supply, Seat Control, HVAC Control, Washer Pump Control, Frunk Strut Control, Damper Valve Control, Wheel Sensing, Speaker Control, Automotive Ethernet, I/O Signals & Pass-Through Lines, High-side SW, Glovebox Control, LIN & CAN Communication, and MCU & Peripherals.



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Report Contents

(1) Component Connection report (98pages)

- Product teardown
- Component list including value
- PCB Layer view
- Component Connection (Netlist, Viewer software)
*Can check connections between components.

(2) Circuit analysis report (117pages)

- Product teardown
- Component list including value
- Detail component level schematic, Function block diagram
- Cross reference viewer software

Report price

Delivered one week after order placement for both report (1) and (2)

Please contact us for report pricing.



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Contact2@ltec.biz

Report No : 24G-0179-2
Release day : 2025.06.10

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