

Left Body Controller (ECU): TESLA CYBERTRUCK Teardown Report



CYBERTRUCK (from Web info)

<https://hypebeast.com/jp/2022/7/cybertruck-delivery-mid-2023-date-news-info>



Overview of Integrated ECU (Left)



PCB (Top View)

Overview

TESLA announced CYBERTRUCK in November 2023.

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 is a teardown report of left Body Controller (ECU) installed in RDW model.

Product features

- Size: 345mm (W) × 310mm (L) × 106mm (H) Weight: 1.86kg
- Air cooling
- 80V is the maximum rated voltage of all the mounted aluminum electrolytic capacitors.
- The PCB is constructed using a large number of ceramic capacitors common in TESLA vehicle.

Report Contents (23 pages)

- Product teardown, parts measurement (size & weight)
- Identification of key ICs on the PCB (including datasheet, if we found).

Report price

Delivery one week after order placement

Please contact us for report pricing

Table of Contents

		Page
<u>Summary</u>		
Table 1	Product Information	3
<u>Product Teardown</u>		
	Product Overview	4
	Installation Status 【Top Frame】	5
	Installation Status 【Top Cover】	6
	Installation Status 【ECU (left) PCB】	8
	Installation Status 【Housing】	12
	Installation Status 【Bottom Frame】	13
	Installation Status 【Gasket】	14
<u>Overview</u>		
Fig. 1-1	Overview of ECU (left) PCB	15
Fig. 1-2	Identification of Key ICs Identification of Key ICs (manufacture, function, etc.) on ECU (left) PCB 1(Top View)	16
Fig. 1-3	Identification of Key ICs Identification of Key ICs (manufacture, function, etc.) on ECU (left) PCB 2(Top View)	17
Fig. 1-4	Identification of Key ICs Identification of Key ICs (manufacture, function, etc.) on ECU (left) PCB 3(Top View)	18
Fig. 1-5	Identification of Key ICs Identification of Key ICs (manufacture, function, etc.) on ECU (left) PCB 4(Top View)	19
Fig. 1-6	Identification of Key ICs Identification of Key ICs (manufacture, function, etc.) on ECU (left) PCB 5(Top View)	20
Fig. 1-7	Identification of Key ICs (manufacture, function, etc.) on ECU (left) PCB (Bottom View)	21
Fig. 1-8	Moisture-Proofed Area of ECU (left) PCB	22
<u>Connection</u>		
Fig. 2	Connection diagram	23