

Front Body Control Module (BCM (ECU)) : Xiaomi SU7 Teardown Report

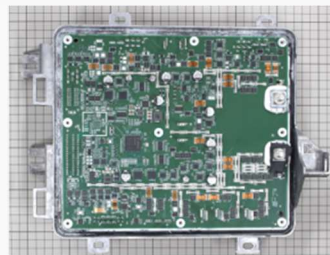


Xiaomi SU7 (from Web info)

<https://hu.motor1.com/news/703064/xiaomi-su7-onallo-parkolas-video/>



Overview of Integrated ECU (BCM FRONT)



Main PCB

Overview

Xiaomi, the Chinese electrical appliance maker announced its first battery electric vehicle (BEV) Xiaomi SU7 in March 2024.

Body Control Module (BCM) is also called integrated electronic control unit (ECU), which manages the power supply of ECU scattered around vehicles collectively

There are many advantages such as efficient control of installed sensors and motors, and reduction of wiring harness. Many manufacturers are moving in the direction of adoption.

The Xiaomi SU7 is equipped with Left Unit, Right Unit, Front Unit three types of BC. It is assumed that the unit manages the same e-Fuse as TESLA.

This is a teardown report of front body control module (BCM (ECU)) installed in Xiaomi SU7 with grade Max.

Product features

- IC and discrete components are made in major manufacturers such as Infineon, Texas Instruments, STMicroelectronics, etc.
- The power supply line is provided with a bus bar and PCB pattern to prevent heat.
- Press fit pins are adopted for power input terminal and connector.

Report Contents (15 pages)

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

Report price

Delivery one week after order placement

Please contact us for report pricing

* Artwork and board circuit analysis of this product are also under planning.

Please contact us if you are interested.

** Right BCM report and Left ECU report are also available

Table of Contents

		Page
<u>Summary</u>		
Table 1	Product Information	... 3
<u>Product Teardown</u>		
	Product Overview	... 4
	Installation Status 【Top Cover】	... 5
	Installation Status 【Main PCB】	... 7
Fig. 1	Main PCB Overview (Bottom Resin Removed)	... 8
	Installation Status 【Housing】	... 9
<u>Overview</u>		
Fig. 2	Main PCB Overview	... 10
Fig. 3-1	Identification of Key ICs (manufacture, function, etc.) on Main PCB (Top View) 2	... 11
Fig. 3-2	Identification of Key ICs (manufacture, function, etc.) on Main PCB (Top View) 2	... 12
Fig. 3-3	Identification of Key ICs (manufacture, function, etc.) on Main PCB (Bottom View)	... 13
Fig. 4	Moisture-Proofed Area of Main PCB	... 14
<u>Connection</u>		
Fig. 5	Connector	... 15