

Integrated ECU(BCM FRONT,LEFT,RIGHT) : Xiaomi YU7 Teardown Report

Integrated ECU(BCM FRONT) : Xiaomi YU7 PCB Layout Report



Xiaomi YU7

Citation; <https://www.xiaomiev.com/yu7>

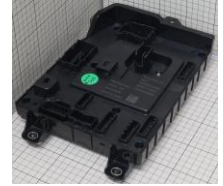


Integrated ECU (BCM FRONT)

※CONTINENTAL



Integrated ECU (BCM LEFT)



Integrated ECU (BCM RIGHT)

BCM: Body Control Module

Report overview

The second BEV (battery electric vehicle) from the Chinese home appliance manufacturer Xiaomi, the Xiaomi YU7, was released in June 2025.

The YU7 is available in three grades: Standard (RWD), Pro (AWD), and Max (AWD). In addition, the Xiaomi YU7 is equipped with three types of body controllers: Front, Right, and Left.

This report presents the teardown analysis of the integrated ECU(BCM FRONT, LEFT, and RIGHT) installed in the Xiaomi YU7, as well as the PCB layout analysis of the BCM FRONT unit manufactured by Continental.

Product Features

Comparison YU7 and SU7

YU7: Large SUV, SU7: Sedan

| | PCB Size | | No. of components | |
|-----------|----------|-----|-------------------|-----|
| | YU7 | SU7 | YU7 | SU7 |
| Front BCM | 0.8 | 1 | 0.7 | 1 |
| Left BCM | 1 | 1 | 0.5 | 1 |
| Right BCM | 1 | 1 | 0.5 | 1 |

A large number of press-fit connectors are used.

A jumper is mounted on the top side of the PCB, which is presumed to be intended for securing sufficient current-carrying capability.

There are many resist openings on the bottom side of the PCB, and together with the thermal resin applied to the enclosure, they are presumed to be intended to improve heat dissipation efficiency

Report contents

1. Teardown Report:

BCM FRONT(21 pages)

BCM LEFT(20 pages)

BCM RIGHT(22 pages)

- Product teardown, component identification and size measurement
- Identification of key ICs (including datasheet which we found)
- Checking the shape of the unit connector

2. PCB Layout Report:

BCM FRONT(93 pages)

- Product teardown, component identification and size measurement
- Parts list (including datasheet, if we found)
- Layout of each layer
- Circuit Connection Information (netlists, Viewer tool)

Note: The following functions are integrated

[FRONT]

- Power distribution
- Front lighting control
- Front sensor aggregation
- Gateway (CAN / LIN / Ethernet)

[LEFT]

- Left-door system control
- Left exterior lighting
- Left-side sensor aggregation
- Actuator control for the left zone

[RIGHT]

- Right-door system control
- Right exterior lighting
- Right-side sensor aggregation
- Actuator control for the right zone

Report price

Delivered one week after order placement. Please contact us for report pricing.

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