

Compressor: Xiaomi SU7 Teardown Report



Xiaomi SU7(from Web info)

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



Overview of Compressor



PCB

Overview

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

Compressors installed in electric vehicles are designed on the assumption that they are driven by a high-voltage on-board main battery. The performance of electric compressor is used not only in cars but also to cool automotive devices and batteries. This unit is indispensable for improvement of driving range, charging time, and battery life extension for EV.

This is a teardown report of the compressor made by ZINSIGHT in Xiaomi SU7 MAX.

Product features

- Manufactured by ZINSIGHT Technology
- SiC based unit with compressor-control PCB

Report Contents (17 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

Related reports

- Wolfspeed (formerly Cree) 1200V SiC MOSFET construction, process analysis report

Reference: Compressor analysis report lineup

- Electric compressor: BYD "Sea Level (Seal)"
- Electric compressor: Denso-manufactured ESH27C (Honda ZR-V(2023))
- Electric compressor: Hyundai Automotive IONIQ5

Note: For the circuit configuration, PCB circuit analysis report is being prepared.

Please contact us , if you are interested in circuit analysis report.

Table of Contents

Page

Summary

Table 1	Product information	...	3
---------	---------------------	-----	---

Product Teardown

Product Overview	...	4
Installation Status 【Back Cover】	...	5
Installation Status 【Gasket】	...	6
Installation Status 【Control PCB】	...	7
Installation Status 【Connector 1】	...	8
Installation Status 【Connector 2】	...	9
Installation Status 【Bus-Bar 1】	...	10
Installation Status 【Bus-Bar 2】	...	11
Installation Status 【Rubber Seal】	...	12

Overview

Fig. 1-1	Control PCB Overview	...	13
Fig. 1-2	Identification of Key ICs Identification of Key ICs (manufacture, function, etc.) on Control PCB (Top View)	...	14
Fig. 1-3	Identification of Key ICs Identification of Key ICs (manufacture, function, etc.) on Control PCB (Bottom View)	...	15
Fig. 1-4	Moisture-Proofed Area of Control PCB	...	16

Connection

Fig. 2-1	Connection Diagram (Control Path)	...	17
----------	-----------------------------------	-----	----



LTEC Corporation US Representative Office www.ltec-biz.com/en/
2310 Homestead Rd, C1 #231 Los Altos, CA 94024

Phone: +1-(650) 382-1181
Contact2@ltec.biz

Report No : 24G-0143-1
Release day : 2024.08.09