

Adaptive Driving Beam (ADB) System : Xiaomi SU7 Teardown Report



Xiaomi SU7(from Web info)

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



Overview of Adaptive Driving Beam System



PCB

Overview

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

In this vehicle, adaptive driving beam system (ADB) is installed as a head light. It ensures excellent sights by detecting the leading and oncoming vehicle, and controlling the direction and on-and-off of LED.

This is a teardown report of adaptive driving beam system installed in Xiaomi SU7 with grade Max.

Product features

- 6 LED are estimated to controlled by 3 LED driver chips
(array type: control multiple LEDs separately)
- 32bit Micro-Controller, motor driver, head-light-powered motor driver, CAN transceiver is the highlighted ICs.

There are also power devices, transistors, capacitors, etc.

Report Contents (10 pages)

- Product teardown, parts measurement (size & weight)
(teardown until PCB removed)
- 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 Cover】	... 5
	Installation Status 【PCB】	... 6
	Installation Status 【Housing】	... 7
<u>Overview</u>		
Fig. 1-1	Overview of PCB	... 8
Fig. 1-2	Identification of Key ICs (manufacture, function, etc.) on Main PCB (Bottom View)	... 9
Fig. 1-3	Moisture-Proofed Area of Image-Sensor-Attached PCB	... 10