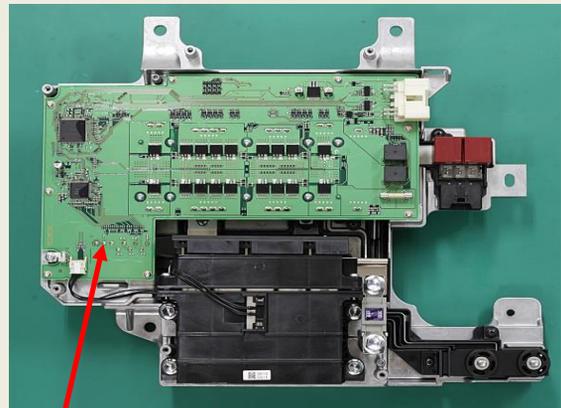


## **SUZUKI WAGON R (2017 MODEL) “MILD HYBRID” BATTERY CELL MONITOR SYSTEM ANALYSIS REPORT**

**June 2017.** LTEC Corporation released a detailed analysis of the SUZUKI Wagon-R “mild hybrid” battery cell monitor fabricated by Denso. This model uses “Smart Hybrid Vehicle by Suzuki” (SHVS) mild hybrid technology in which an Integrated Starter Generator (ISG) is used to charge the battery while breaking. The energy is then reused to generate additional torque while the vehicle is accelerating. The new system increases fuel economy to 65.39mile/Gal, and maximum speed from 49.7mph to 63.1mph for a limited period of time (“creeping feature”). The battery capacity is about 3.3 times larger than that of the conventional model. The creep function can be activated below 6.2mph for electric motor power only. For additional information on the Suzuki S-enecharge system refer to **LTEC Report No: 14G-0789-1.**



**The complete control system**



**The PCB subject to analysis**

The 57-page report reveals the PCB layout, BOM, components, function block diagram and circuit details. PCB pattern, component sizes and values are also included in this report.

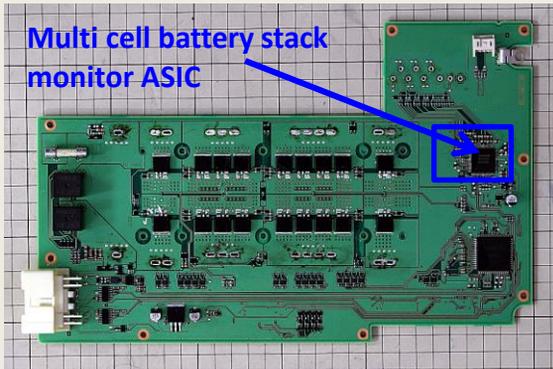
**Note:**

The listed report price may not be accurate as it decreases over time.

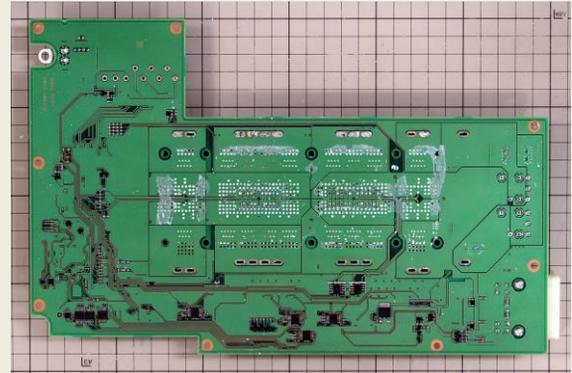
Please contact us for current report pricing [info@ltecusa.com](mailto:info@ltecusa.com)

17G-0001-1

Generated power of ISG goes to Li-ion battery, or lead-acid battery and BCM. Power of LiB or lead battery go to BCM. The path is controlled by four semiconductor switches. There are redundant relays to ensure connection path between the lead-acid battery and the ISG, and the lead-acid battery and the BCM in the event the solid state switches fail. This is for passenger safety reason, to ensure some residual mobility of the vehicle in the event of switch failure.



**Top view**



**Bottom view**

**Main control board**

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