

## HANGZHOU EV-TECH ON-BOARD CHARGER CIRCUIT ANALYSIS REPORT

**February 2020.** This is a detailed circuit analysis report of the Hangzhou ev-tech's on-board charger unit found in Great Wall Motor Co's ORA-R1 electric vehicle.



**ORA-R1 of Great Wall Motor Co. Ltd.**



**The On-board charger unit**

This vehicle is the lowest grade model among the EC cars produced by Great Wall Motor Co. The 33 kWh batteries are mounted under the floor of the vehicle. The peak output power of the Front-Engine Front-Drive (FF) system is 35kW (about 48hp).

### **OBC unit features**

The OBC has a three-layer housing. The main elements of the upper layer are the junction box board (JB) and a power relay. The middle layer consists of a charger and a DC-DC converter circuit composed of a control board and a main board. A cooling channel is provided within the lower layer (bottom side of the housing).

The OBC also has PFC, LLC converter, and a 14V DC-DC converter.

### **Report content**

The 96-page report provides PCB layout of each layer, function block diagram, detailed circuit diagram, and parts list. A layout vs. schematic viewer is also provided.

Note: The report price may change over time. For current price contact [info@ltecusa.com](mailto:info@ltecusa.com).

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