New Release

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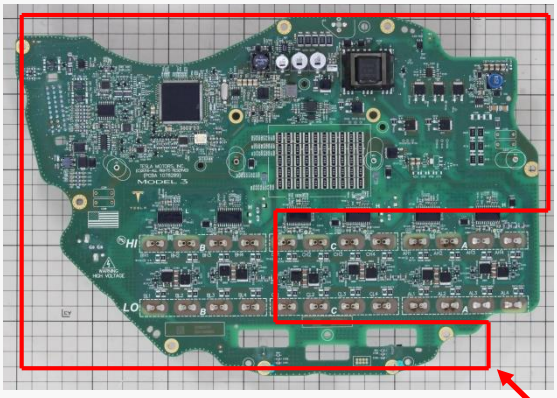
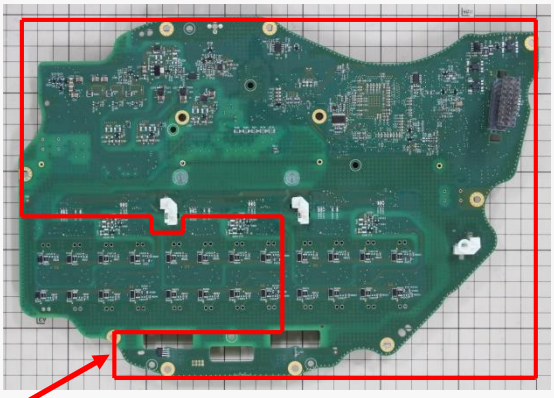
TESLA MODEL 3 MOTOR INVERTER PCB – DETAILED CIRCUIT ANALYSIS REPORT

March 2019. LTEC Corporation released a detailed circuit analysis report of TESLA Model3 motor inverter PCB.



PCB (Top view)



PCB (Bottom View)

Analysis area (Common block and one phase of control block)

Feature of Inverter board

- SiC MOSFET power module is used, made by STMicroelectronics. (Refer to LTEC Report No:18G-0025-1)
- Since this board is configured with the motor in one chassis, the power module control circuit and the inverter control circuit are mounted on the same PCB.
- PCB size: 328.0 mm x 225.5 mm, Number of layers: 6, Weight: 301Kg

Analysis result summary

- Six isolated gate driver ICs are used, manufactured by STMicro.
- Two main ASICS are mounted: a MCU made by TI, and a power management IC by Infineon.
- The power source for the six power supply subsystems is a flyback converter.
- Two phase currents among three phase inverter outputs are monitored by Melexix sensor ICs.
- LIN Ics by NXP and CAN ICs by TI are used for the communication with the outside.
- This 59-page report includes of each layer patterns, component list, function block diagram and detailed circuit schematic.

Priced $23,000

Note: The report price decreases over time. Contact **info@ltecusa.com** for current price.

18G-0024-1

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