

New Release

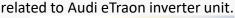
LTEC Corporation

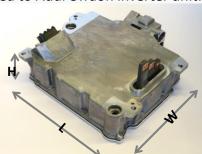
Your most experienced partner in IP protection

HITACH AUTOMOTIVE INVETERTER ANLYSIS REPORTS

- Product used in the Audi eTRON 55 QUATTRO EV

LTEC Corporation released three reports (Terdwon, Control Board, and Gate Drive Board) all





Gate driver board

Inverter unit

Control board

Product outline

- Audi eTraon is the first EV from Audi.
- The inverter unit achieves high power density by using double-sided cooling power module (approximately 160% higher power density compared to the company's conventional product)

Basic features

The inverter unit consists of gate driver board, inverter control board, power module, DC link capacitor, DC current sensor, and an AC current sensor. The inverter board consists of an internal power supply, gate driver interface, high voltage monitor, current monitor, resolver interface, communication, low-side driver, MCU, CPLD & peripherals. The gate driver board consists of a gate driver circuit, discharge control, and an internal power supply.

Report Type	No. of Pages	Report Content	Report No.
Teardown	39	Teardown and component list	19G-0018-1
Control	34	PCB layer images, components list,	19G-0018-4
Gate driver	26	function block diagram, component-level schematic, cross-reference viewer tool	19G-0018-5

Note1: Since there are three identical circuits in the board, detailed circuit analysis was performed for only one of them: the area within the red box in the above image.

Note2: The report price may change over time. For current price contact info@ltecusa.com.

19G-0018-1,4,5



Phone: (408) 489-1994 www.ltecusa.com Contact: info@ltecusa.com

Table of Contents (PCB1)

Battery voltage monitor

	Page
Product information	3
Analysis summary	4
PCB X-ray	5
PCB each layer pattern	10
Component mounting position	11
Components details	14
Connectors	15
Sensor	
Function block	17
Schematic	18
Component list	19
Pattern analysis for insulation	28

20G-0006-2



Table of Contents (PCB2)

BMS control PCB

	Page
Product information	3
Analysis summary	4
PCB X-ray	6
PCB each layer pattern	8
Component mounting position	11
Components details	13
Connectors	16
Function block	17
Schematic	18
Component list	19

20G-0006-1



Table of Contents (PCB3)

Gateway PCB

	Page
Product information	3
Analysis summary	4
PCB X-ray	5
PCB each layer pattern	8
Component mounting position	9
Components details	10
Connectors	11
Sensor	12
Function block	13
Schematic	14
Component list	15

20G-0006-3

