

# Battery Electric Vehicle PRINTED CIRCUIT BOARD ASM Bills of Material Reports

Hyundai IONIQ5 (2023)
Ford Mach-E (2021)
Tesla Model Y (2020)

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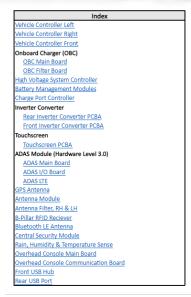
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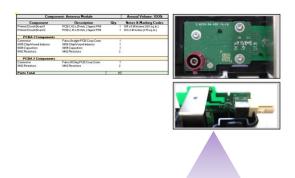
#### PRINTED CIRCUIT BOARD ASM BOM REPORT

Each vehicle's report includes a comprehensive list of the components on each main vehicle circuit board. Each component listed includes its associated part number, quantity per board, vendor, part description, and other notable markings. Included are high resolution photographs of the top and bottom of each circuit board.

Component	Description	Qty	Notes & Marking Codes
Printed Circuit Board	270 x 164 mm, 6 layers Assumed, FR4	1	10.63 x 6.46 inches (54.91 sq. in.)
Label	Label, 25 x 7mm, B&W, (P) 1514604-00-D RevO1, (S) B7S20031000009	1	
Top PCBA Components			
Spade Terminal	6.35mm Spade Terminal, Compliant	6	
Spade Terminal	4.81mm Spade Terminal, Compliant	1	
Spade Terminal	1.50mm Spade Terminal, Compliant	83	
Spade Terminal	0.64mm Spade Terminal, Compliant	159	
SPC56EC74B3C9EEX, STMicro	SPC56EC74B3C9EEX, MCU 32-Bit Dual Core RISC 3MB Flash 3V/5V 256-LBGA	1	U1, SPC56EC74B3
SPC560C50L3C6E0Y, ST Micro	SPC560C50L3C6E0Y, MCU 32-bit RISC 512KB Flash 3.3V/5V 100-Pin LQFP	1	U2, SPC560C50L3
NCV7707DQR2G, ON Semi	NCV7707DQR2G, Motor Driver 5.5V to 28V 36-Pin SSOP	1	U8, NCV7707
DRV8305NQPHPQ1, TI	DRV8305N QPHPQ1, 3-Phase Gate Driver 4.3V to 45V 48-Pin HTQFP	1	U626, DRV8305NQ
TMS320F28027PTQ, TI	TMS320F28027PTQ, MCU 32-bit C28x RISC 64KB Flash 3.3V 48-Pin LQFP	1	U628, F28027FPT Q
DRV8703DQRHBRQ1, TI	DRV8703DQRHBRQ1, Driver 0.5A Half Bridge Inv/Non-Inv 32-Pin VQFN	8	U18, 19, 24, 25, 26, 27, 613 & U636, DRV8703
DRV8702QRHBRQ1, TI	DRV8702QRHBRQ1, Driver 3.6V Half Bridge Inv/Non-Inv 32-Pin VQFN	1	U21, DRV8702
2901AVO T	2901AVO, Comparator Quad R-R O/P±16W32V Automotive 14-Pin 35OP	4	U20 29 621, 633 & U637, 2901AVO



Each PCBA Excel workbook contains 20 to 25 tabs depending on vehicle content. Each tab details the components on a printed circuit board assembly.





Index Vehicle Controller Left Vehicle Controller Right Vehicle Controller Right Vehicle Controller Front ADAS LTE PCBA GPS Antenna (ROM) Antenna Module Antenna Filter, RH & LH





# PCBA BILLS OF MATERIAL REPORT INDEX



### Controllers

Vehicle Controller Left Vehicle Controller Right Vehicle Controller Front

# ★ Battery & Charge Management

OBC Main Board
OBC Filter Board
High Voltage System Controller
Battery Management Modules
Charge Port Controller
DC/DC Converter

#### Inverter Converter

Rear Inverter Converter PCBA Front Inverter Converter PCBA

#### ♦ User Interface

Touchscreen PCBA

#### ADAS Systems

ADAS Main Board
ADAS I/O Board
ADAS LTE
GPS Antenna
Antenna Module
Antenna Filter, RH & LH

## Communications / Sensing

B-Pillar RFID
Bluetooth LE Antenna
Central Security Module
Rain, Humidity, & Temperature Sense
Overhead Console Main Board
Overhead Console Communication Board

#### + USB

Front USB Hub Rear USB port

Vehicle PCBA content will vary.



#### **TERMS & CONDITIONS**

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