

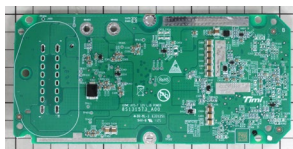
Auxiliary Battery : Shanghai Timi Motor - 12V LFP Battery Equipped in GAC Toyota bZ3X: PCB Circuit Analysis Report



bZ3x



Product Overview
(12V,LFP Battery)



Power PCB



Protection Monitoring PCB

Report overview

The bZ3X an SUV jointly developed by Toyota Motor Corporation, GAC Group, GAC Toyota, and Toyota Intelligent Electric Vehicle R&D Center (China), was unveiled in March 2025. By incorporating components from Chinese manufacturers, the vehicle achieves a low starting price.

The battery architecture consists of a main LiB (650 V), an auxiliary LiB (12 V), and a 12 V lead-acid battery. The auxiliary LiB (12 V), which was the focus of this analysis, supplies power to the ABS, master cylinder assembly, and related subsystems. This report includes an in-depth circuit analysis of the power supply PCB and the protection/monitoring PCB.

Product Features

- The battery module consists of four lithium iron phosphate (LiFePO₄) cells connected in series.
- Both the battery cell monitoring IC and the MCU are from NXP
- The connector that interfaces with the power supply board is a press-fit type

Power PCB

Size	(W) 152.6mm x (L) 70.8mm x (t) 1.6mm
Weight	69.0g
Layer	6
I/O Connector Pin	1pin x 4, 16pin x 1, 40pin x 1
Number of Mounted Elements	294

Protection/Monitoring PCB

Size	(W) 152.8mm x (L) 70.8mm x (t) 1.6mm
Weight	61.6g
Layer	6
I/O Connector Pin	1pin x 11, 4pin x 1, 40pin x 1
Number of Mounted Elements	236

Report contents

PCB Circuit Analysis Report : 52 pages

- Product teardown, component identification and size measurement
- Parts list (including datasheet, if we found)
- PCB Schematic, Block Diagram
- PCB layout and schematic cross reference viewer tool

Report price

Delivered one week after order placement. Please contact us for report pricing.

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