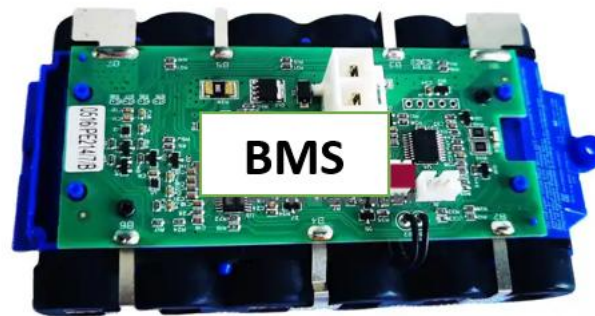


Firmware Development of BMS for Electric Vehicle Battery Manufacturer

The aim of this project was to optimize the firmware code for BMS, achieving significant improvements in memory usage and power efficiency.

- Optimized multiple functions of firmware related to EEPROM and Error Queues to save code memory.
- Reduced RAM memory usage by 20% through code optimization, maintaining all existing functionalities.
- Decreased power consumption by 50% by optimizing deep sleep functionality and transitioning Flash code to RAM memory.
- Reduced Clock frequency while staying in operational limits.



Technologies Used:

- SafeRTOS
- Controller: Infineon XMC 400 Arm Cortex M4
- IDE: Dave IDE
- Additional Tools: J link debugger, Oscilloscope, Digital/Analog Signal Generator