Specifications:

1. Must have an internal rechargeable battery with 3 hours power on time
2. Must have 5V and 3.3V DC-DC Converter outputs that maintain constant voltage
3. Must have both audio jack and speaker outputs that switch on jack plug in/out
4. Must have the ability to change audio level via adjustable gain knob for gain of 0 to 2.25
5. Must have at least 90% efficient power efficiency for DC-DC converters

Subsystem Block Diagrams:



