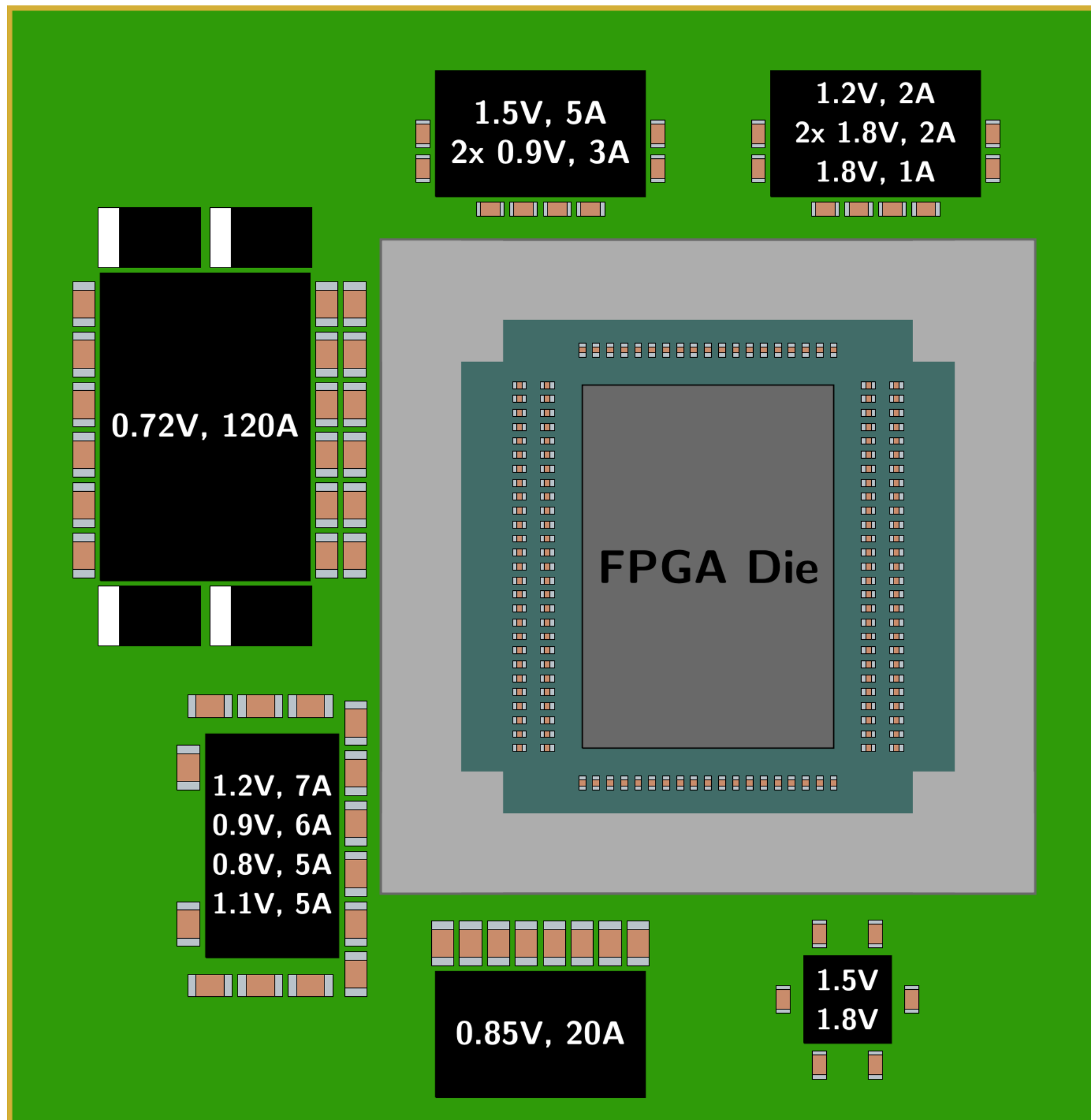


# Area Savings: 50-70%

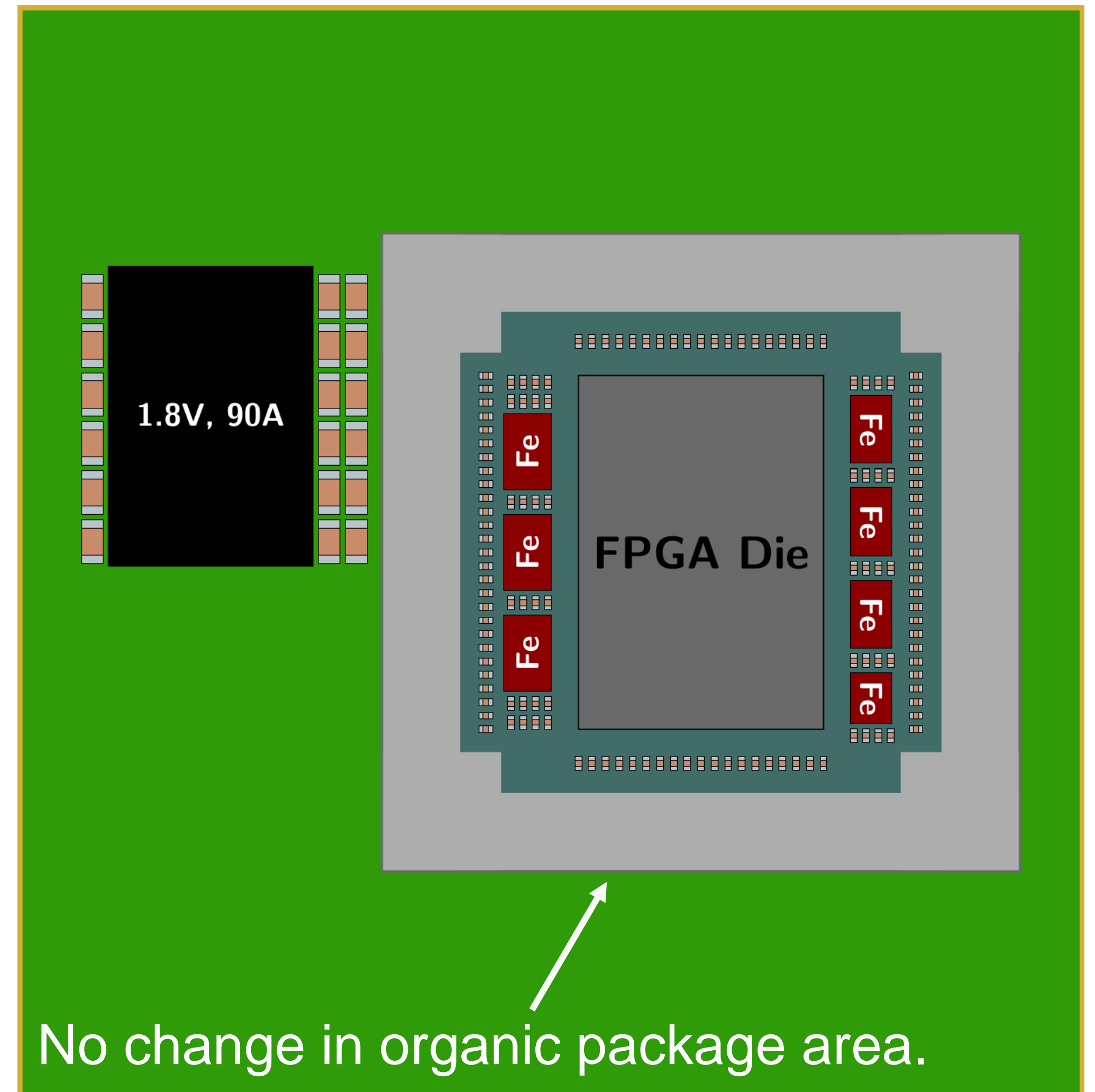


Ferric's Integrated Inductor Voltage Regulators (ILVR) are small enough to be moved inside SoC package, significantly reducing PCB area.

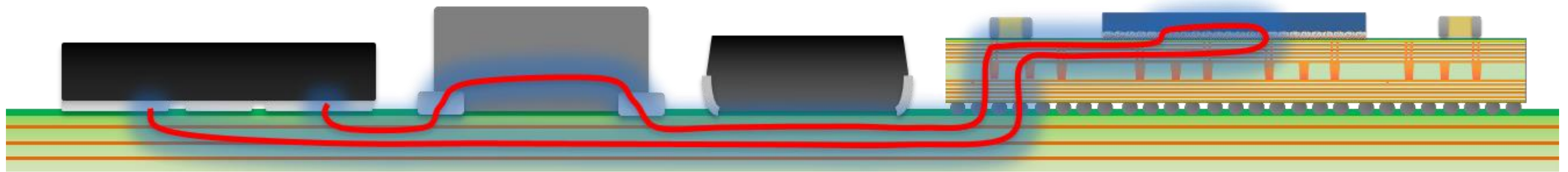
Conventional VR Solution: 1373 mm<sup>2</sup>



Ferric ILVR Solution: 605 mm<sup>2</sup>

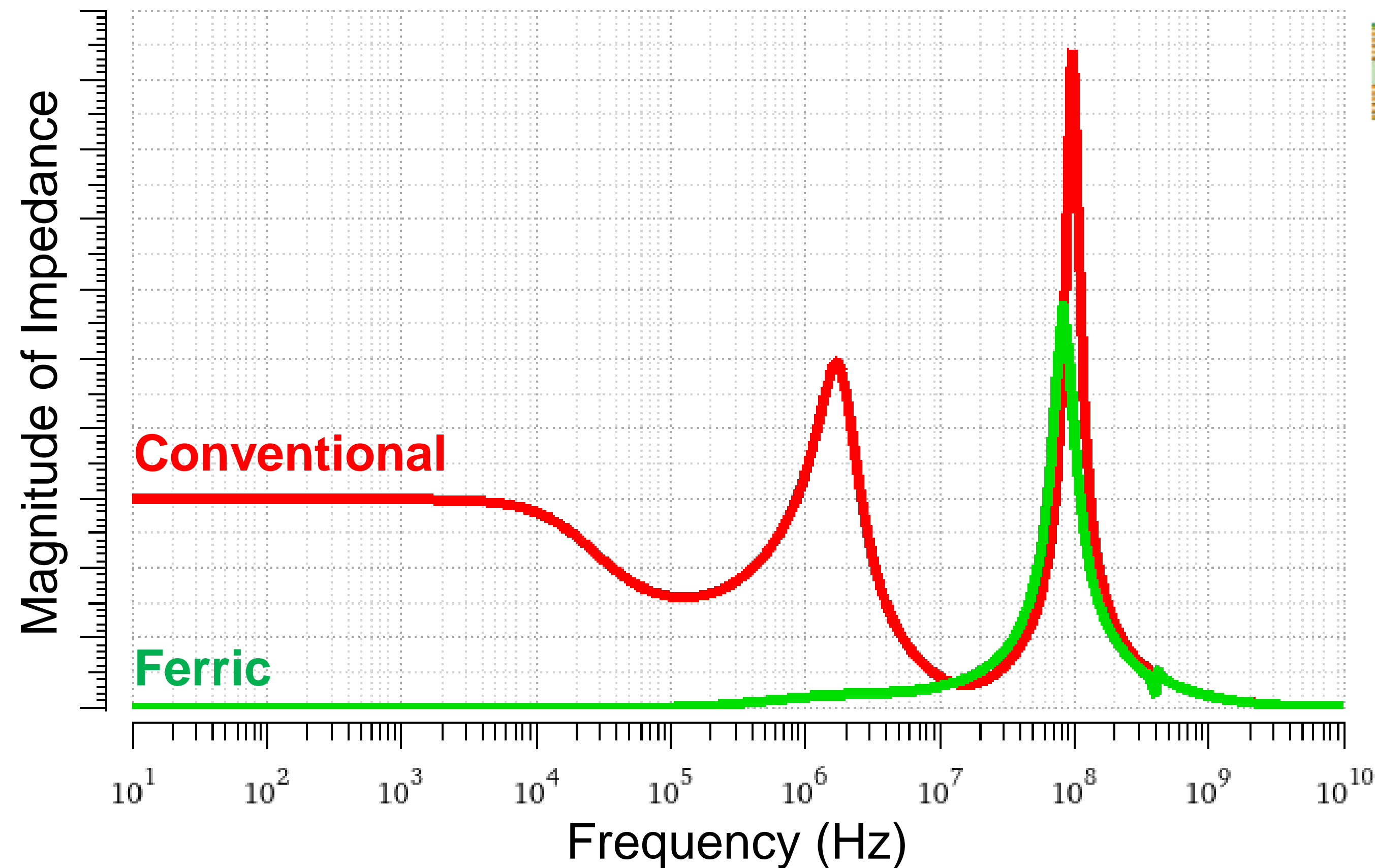
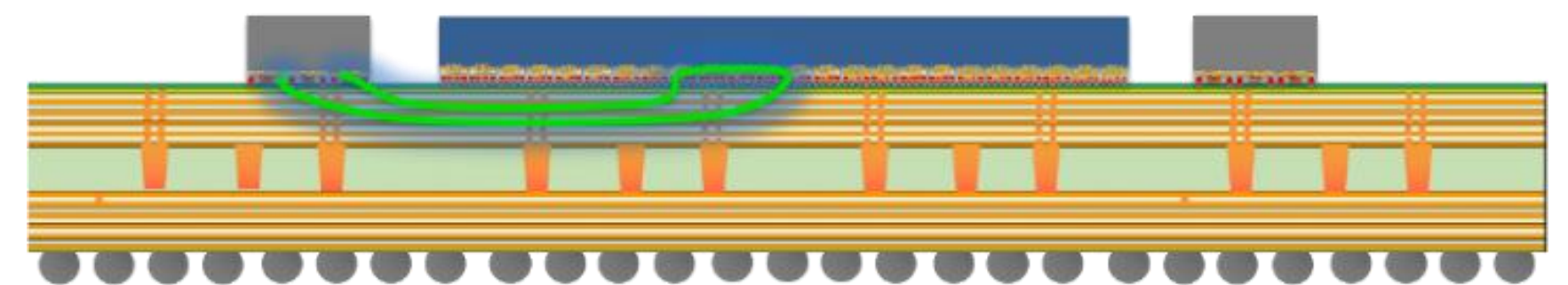


# Improved Power Integrity



Conventional Power Delivery Network (PDN)

Ferric Power Delivery Network (PDN)

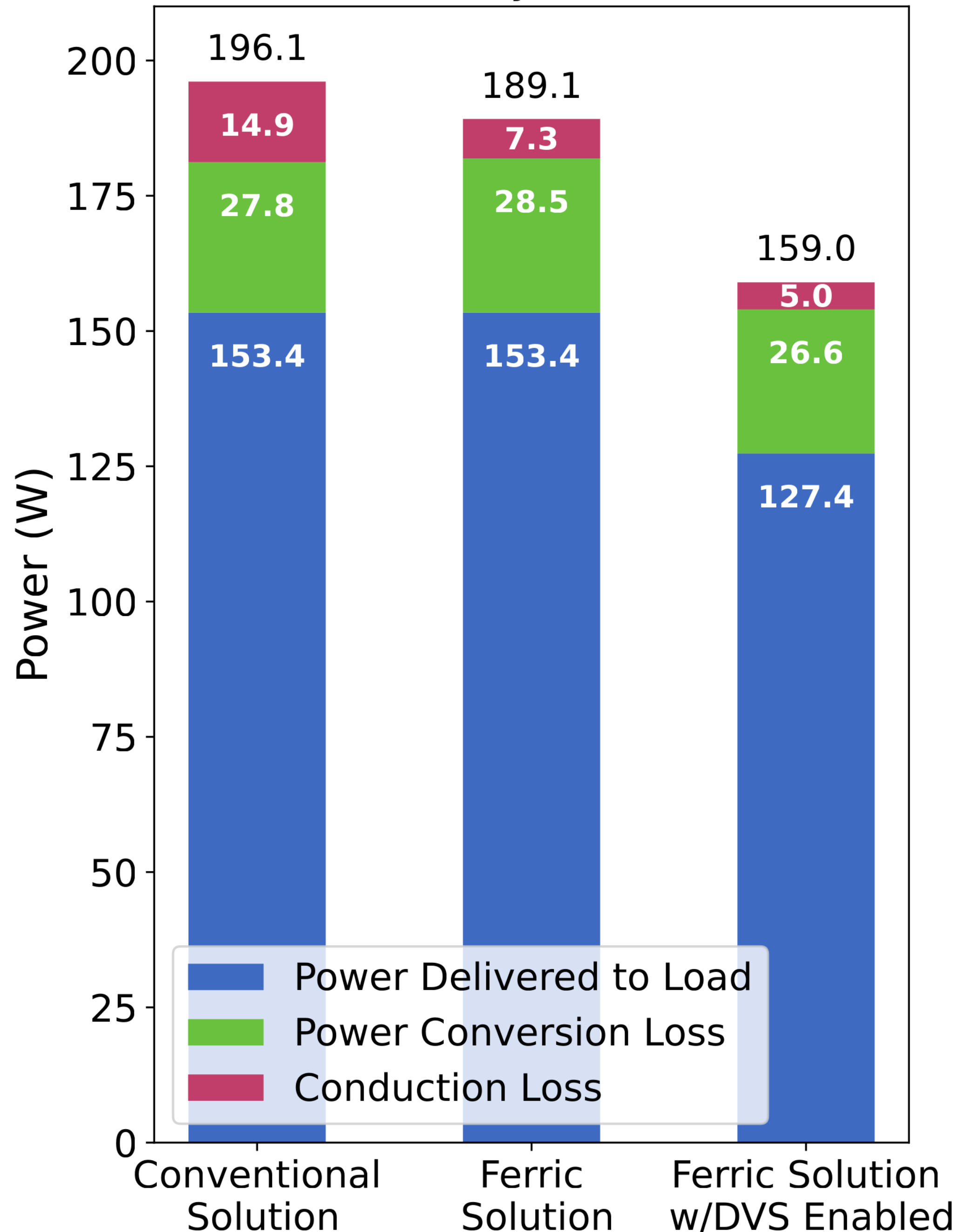


- Smaller loop inductance
- Less bulk capacitance
- Higher feedback bandwidth
- Fewer parasitics
- Less impedance overall

# Power Savings: 15-30%



Power Analysis for FPGA



- **Lower Conduction Losses**
  - Shorter routing of power domains
- **Improved Voltage Regulation**
  - Tighter voltage margins lead to quadratic improvement in power performance
- **Improved Power Management**
  - Faster Dynamic Voltage Scaling
  - Faster Telemetry Readings
  - Faster Loadline
- **Granular Power Domains with Individual Control**