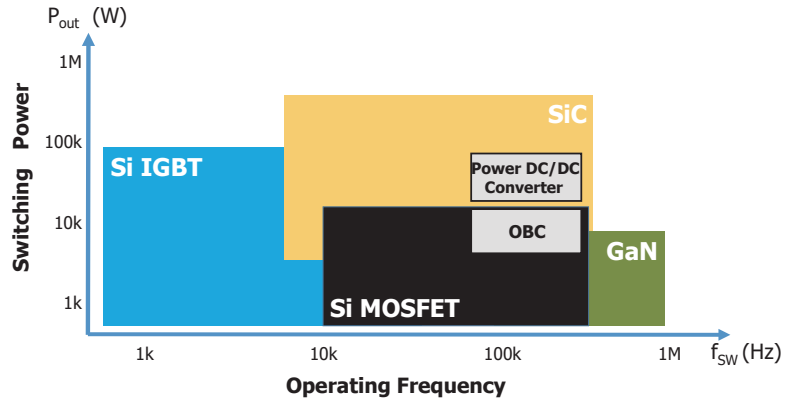
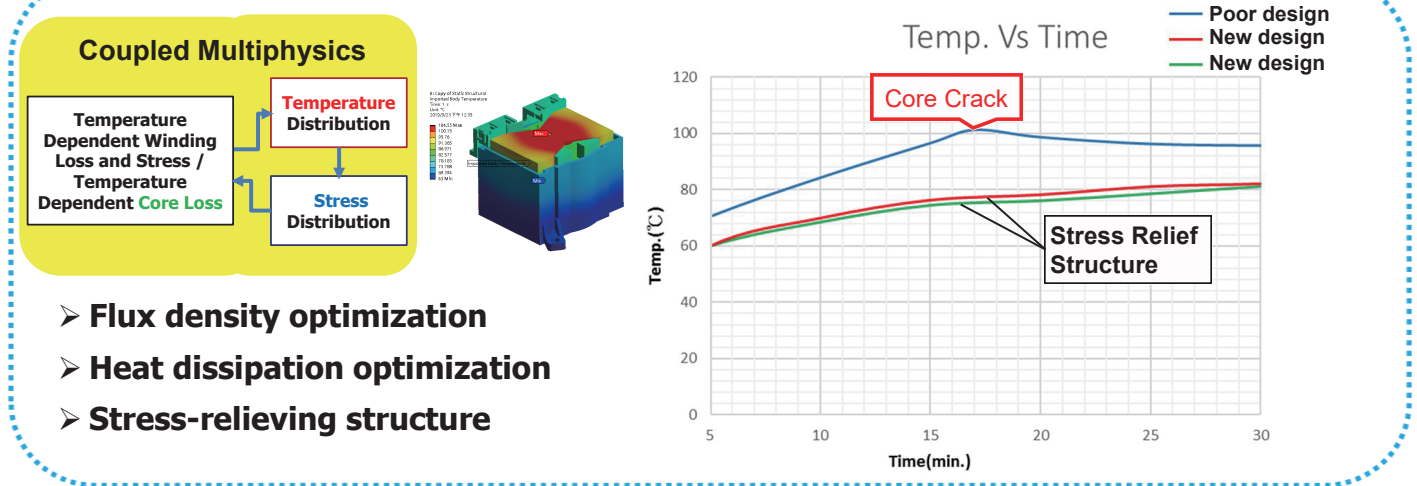


Challenges

- Power Efficiency
- Thermal & Mechanical Stresses
- Miniaturization



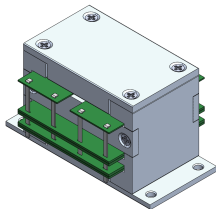
Multiphysics Simulation for Stress Relief Design



Product Benefits/ Features

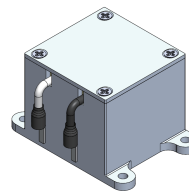
Size reduction

X'fmr for 6.6kW SiC CLLLC OBC



- ✓ Magnetic circuit integration
- ✓ 40% smaller than previous design

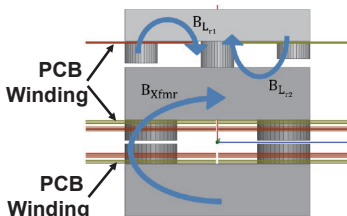
X'fmr for 6.6kW GaN CLLLC OBC



- ✓ Leakage as resonant inductors
- ✓ 50% smaller than previous design

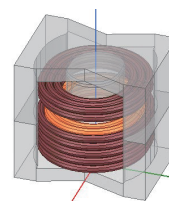
Lower winding loss & core loss

X'fmr for 6.6kW SiC CLLLC OBC



- ✓ Avoid air gap fringing to reduce winding loss
- ✓ Fluxing cancelling for lower core loss

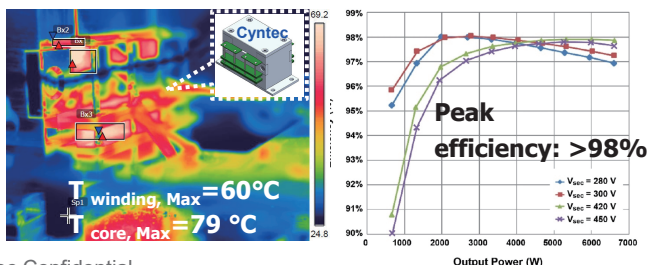
X'fmr for 6.6kW GaN CLLLC OBC



- ✓ Suitable litz wire bundle arrangement & winding away from gap to reduce winding loss
- ✓ Optimize flux density to reduce core loss

Effective heat dissipation & higher conversion efficiency

X'fmr for 6.6kW SiC CLLLC OBC



X'fmr for 6.6kW GaN CLLLC OBC

