

Modeling, Simulation, and Characterization

Modeling

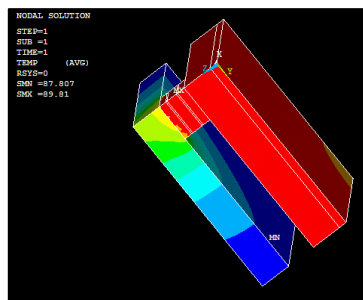
Aegis Technology conducts both electrical circuit modeling of SiC power electronics and thermal system modeling in order to evaluate and optimize different circuit designs and the impact of using SiC devices. In addition, modeling is used to evaluate electrical performance.

Simulation

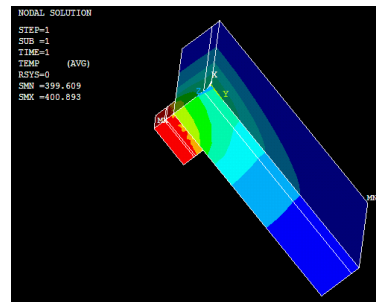
Aegis Technology conducts computer based simulation to evaluate (1) performance, (2) power losses, (3) energy efficiency, (4) changes in junction temperatures, (5) size, (6) volume for SiC power converters and inverters.

Characterization

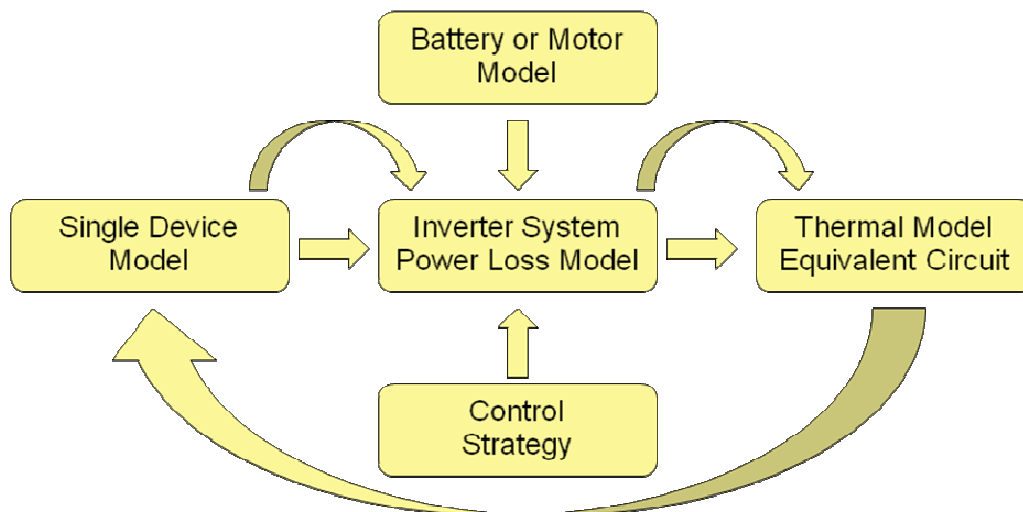
Aegis Technology conducts testing and characterization of SiC power modules, converters, and inverters including all integrated heatsinks and packaging.



a)



b)



c)

- a) Computer FEA simulation of PPDA process, b) Computer FEA simulation of conventional wire bonding, c) System level model of a SiC inverter

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