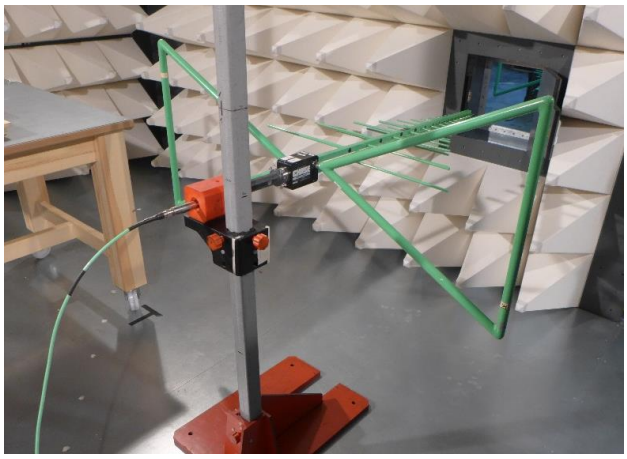
Seibersdorf Laboratories
EMC & Optics

Diploma Thesis

Measurement and Simulation of Shielding Performance of Housing

Current Status and Motivation



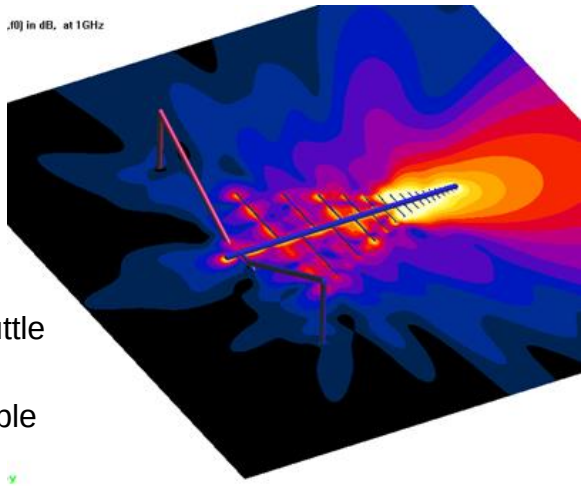
Housings of power electronic systems have to shield the environment from electromagnetic fields, which are created by the circuits themselfes. The development of housings with efficient shielding can be very complex. To improve the development, new simulation and measurement methods have to be applied.

Research Topic(s)

The goal of this thesis is to improve an existing measurement method by changing its parameters (e.g. antennas, receiver, etc). The existing method is used to measure the impact of different slots to the shielding performance of the housing. In the next step, simulation models of the measurement setup have to be developed, in order to be able to change further parameters in simulation with lower effort. The developed methods can be applied to characterize the damping of simple housings with the aid of measurement and simulation.

Approach / Methodology

- Measurement of electromagnetic fields
- Numerical simulation of measurement setup



Organizational Matters

- Start of work: as soon as possible
- Workplace: Seibersdorf Laboratories (25 Minutes from Vienna Hauptbahnhof with shuttle service) and home office
- Paid thesis, cooperation with TU Graz possible
- Goal: Written thesis and final presentation

Ansprechperson/Betreuung

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