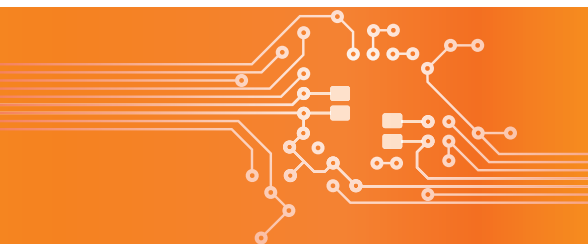


Success Story

www.optenni.com



Company Name

Intel Corporation

Contact

Dr. Steven Gaskill, RF Engineer

Application

NFC Antenna Solutions

Company Profile

Intel is a multinational corporation with global headquarters in Santa Clara, California. As one of the world's largest semiconductor manufacturers, we utilize the power of Moore's Law to bring smart, connected device to every person on Earth. Our vision is to make smart and connected devices best with Intel. As of 2013 Intel employed 107,600 employees worldwide and had a net revenue of \$52.7 billion.

More Info

www.intel.com

Intel Uses Optenni Lab For Efficient NFC Antenna Matching

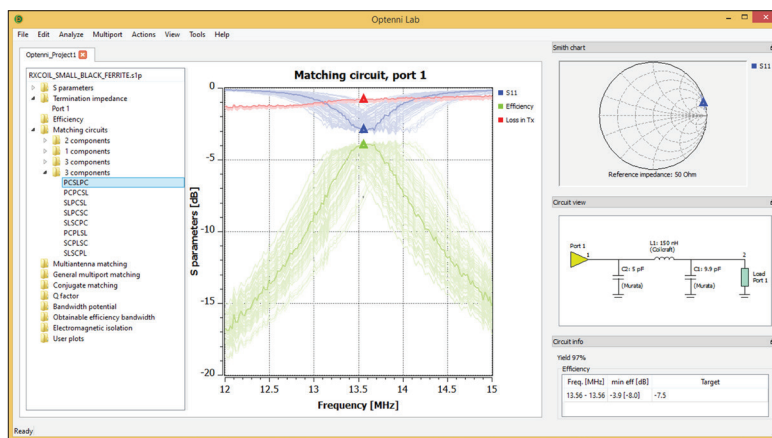
The Design Task

Intel develops Near Field Communication (NFC) solutions for PCs, tablets and smartphones. Due to stringent size restrictions the antennas must be small, thus providing inherently weak coupling between the TX and RX antennas. In order to meet the specifications, the coupling must be improved by a high quality matching network.

The Optenni Solution

Optenni Lab™ provides theoretically optimal matching networks from a library of characterized components, to bound what is achievable with a given NFC antenna geometry. This enables the design team to quickly rank different antenna candidates, and to develop in a predictable time frame certifiable solutions that meet user experience expectations.

The link to VNA is a big asset, as it enables a single workflow for both concept development and prototyping. The optimization uses component manufacturer models which is very important in order to achieve a realistic version even in the very beginning.



Tolerance analysis is an important part of the total NFC performance analysis. Optenni Lab enables tolerance analysis being carried out directly on the vendor library components.

“Designing high performance matching networks for NFC applications is an involved process. Optenni Lab helps designers do it right.”

Dr. Steven Gaskill, RF Engineer, Intel Corporation