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A Study of the Effect of Different Coplanar Dual-Coil Geometries on the Performance of Mutual Inductance

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Highlights

- The sensing performance of co-planar dual-coils with different geometries is evaluated in this study.
- The sensing performance of different coil designs are characterized quantitatively by measuring the phase variation.
- The phase difference is dominated by the coupling capacitance and the more to approach square-typed coil the phase difference became smaller.
- A specific sensing performance is easily realized by changing the coil geometry and its size.

Abstract

This paper studies the sensing performance of different coplanar dual-coil geometries, which affects the phase variation of mutual inductance. Five micro-coil

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