

Comments and Corrections

Correction on “Effect of Temperature Variation and Packaging on SOI MEMS Inductor With DRIE Trench on Low-Resistivity Substrate”

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In [1], the following equation contains a typographical error and should be written as:

$$f < 2 \text{ GHz} : R_S \approx R_{DC} \cdot l = \frac{l}{\sigma wt} \quad (1)$$

$$f \geq 2 \text{ GHz} : R_S = R_{AC} \cdot l = l \sqrt{R_{DC}^2 + (kR_{hf})^2} \quad (2)$$

This, however, has no impact on the simulation results presented in this paper.

From the above equations, it can be concluded that at low frequency, series resistance R_S can be approximated to dc resistance of the inductor loop. However, as frequency increases, skin effect starts to dominate and resistance increases. Thus, R_S can no longer

be equaled to dc resistance. Usually, (1) holds good near upto 2 GHz [2] and beyond which, increased value of R_S is modeled by incorporating the skin effect related term R_{hf} [1], [3].

REFERENCES

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Manuscript received February 15, 2014; accepted October 27, 2014. Date of publication November 11, 2014; date of current version December 29, 2014. The review of this paper was arranged by Editor A. M. Ionescu.

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Digital Object Identifier 10.1109/TED.2014.2366299