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:

$$f < 2 \text{ GHz}: R_S \approx R_{\text{DC}} \cdot l = \frac{l}{\sigma w t} \tag{1}$$

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

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

[1] A. Bhattacharya and T. K. Bhattacharyya, "Effect of temperature variation and packaging on SOI MEMS inductor with DRIE trench on low-resistivity substrate," *IEEE Trans. Electron Devices*, vol. 61, no. 2, pp. 400–407, Feb. 2014.

[2] G. M. Rebeiz, *RF MEMS: Theory, Design, and Technology*. New York, NY, USA: Wiley, Feb. 2003.

[3] C. H. Kim and Y.-S. Kwon, "Thick-copper-buried inductors using anodized aluminum package substrates," *IEEE Compon., Packag., Manuf. Technol.*, vol. 2, no. 8, pp. 1260–1264, Aug. 2012.