Abstracts

Experimental Study on Spiral Inductors

S. Chaki, S. Aono, N. Andoh, Y. Sasaki, N. Tanino and O. Ishihara. "Experimental Study on Spiral Inductors." 1995 MTT-S International Microwave Symposium Digest 95.2 (1995 Vol. II [MWSYM]): 753-756.

An experimental study of spiral inductor loss is described quantitatively. For the evaluation of the loss, over one hundred types of spiral inductors with different figures (square, circle, octagon) and line/space widths are fabricated, then pi-network equivalent circuits are extracted from measured s-parameters. The results show that the resistance R of circular and octagonal shaped inductors is smaller by 10% than that of a square shaped inductor with the same inductance value. They also indicate that minimization of the line space is more effective for reducing the loss of the inductor with the same inductance value than maximization of the line width.

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