

## عنوان مقاله:

Characterization of a High-Q On-Chip Transmission Line for CMOS MMIC Applications

## محل انتشار:

نوزدهمین کنفرانس مهندسی برق ایران (سال: 1390)

تعداد صفحات اصل مقاله: 4

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## خلاصه مقاله:

A high quality factor transmission line structure with shielded ground plane and curved side-walls is proposed for CMOS MMIC applications. The structure is optimized, fabricated and characterized up to 40 GHz. Instead of conventional open, short and thru de-embedding methods which occupies a large chip area, a simple yet accurate de-embedding method using lines with different lengths is employed. Simulated and measured data are compared which shows are in good agreement. The extracted line parameters are studied and it is seen that even with the shielded ground; the quality factor of the line degrades at very high frequency due to the substrate loss.

## کلمات کلیدی:

(Transmission line (TL), Microwave integrated circuit (MMIC), CMOS, Q (quality factor

## لینک ثابت مقاله در پایگاه سیویلیکا:

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