

Abstracts

Compact MMIC active inductor

G. Avitabile, B. Chellini, E. Limiti and F. Giannini. "Compact MMIC active inductor." 2001 MTT-S International Microwave Symposium Digest 01.3 (2001 Vol. III [MWSYM]): 1585-1588 vol.3.

An active inductor implementation suitable for microwave and millimeter wave applications is introduced. The circuit is very simple, compact and can be easily realized in a floating configuration. Simulations, based on Philips smart library ED0D2AH, show that the component can have a quality factor in excess of 100 at 22 GHz with a current consumption of 5.5 mA @ 2.5 V bias. A monolithic implementation in PHEMT technology is reported and discussed.

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