Abstracts

Novel frequency doubler using feedforward for fundamental frequency component suppression

N. Siripon, M. Chongcheawchamnan and I.D. Robertson. "Novel frequency doubler using feedforward for fundamental frequency component suppression." 2001 MTT-S International Microwave Symposium Digest 01.2 (2001 Vol. II [MWSYM]): 1345-1348 vol.2.

Feedforward techniques are applied to a microwave frequency doubler for the first time. The feedforward branch is composed of 2 couplers and 1 phase shifter to adjust the phase and cancel the fundamental signal at the output of a single-ended doubler. This technique is experimentally demonstrated in the 1-to-2 GHz frequency. Compared to the single-ended doubler, the experimental results show more than 50 dBc fundamental signal suppression with only a small drop in conversion gain.

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