Abstracts

A new balanced amplifier using 6-port power divider

Jong-Sik Lim, Soon-Young Eom, Jae-Hee Han, Seong-Hun Kim, Deok-Hee Lee and Sangwook Nam. "A new balanced amplifier using 6-port power divider." 2001 MTT-S International Microwave Symposium Digest 01.2 (2001 Vol. II [MWSYM]): 1301-1304 vol.2.

A new balanced amplifier using the 6-port power divider is proposed. The power divider used in this balanced amplifier has a totally planar structure, and needs no internal resistor and termination. The measured insertion loss of the 2-port back-to-back power divider/combiner for the balanced amplifier is around 0.7 dB, which is a reasonable value at 10 GHz. In power measurement, the 1 dB output power compression point of the proposed balanced amplifier is twice that of the single-ended amplifier as predicted. The measured performances show that the proposed amplifier can be applied as a new balanced amplifier.

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