Abstracts

Lumped-element compensated high/low-pass balun design for MMIC double-balanced mixer

Hwann-Kaeo Chiou, Hao-Hsiung Lin and Chi-Yang Chang. "Lumped-element compensated high/low-pass balun design for MMIC double-balanced mixer." 1997 Microwave and Guided Wave Letters 7.8 (Aug. 1997 [MGWL]): 248-250.

We report a novel lumped element balun structure for both monolithic and hybrid circuit applications. The proposed structure utilizes two filters to compensate the amplitude and phase errors at the two balance outputs of a traditional out-of-phase power splitter. This circuit requires no multilayer or suspended substrates techniques; therefore, wide applications on many circuits operated especially, in the low microwave band, are expected. Two monolithic microwave integrated circuit (MMIC) mixers were built to demonstrate the electrical feasibility.

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