Abstracts

Wide-bandwidth Ku-band monolithic analog frequency divider

S. Desgrez, M. Gayral, O. Llopis, J.-C. Cayrou, J.-L. Cazaux and J.-F. Sautereau. "Wide-bandwidth Ku-band monolithic analog frequency divider." 1998 Microwave and Guided Wave Letters 8.2 (Feb. 1998 [MGWL]): 84-86.

A new analog frequency divider configuration using a resistive field-effect transistor (FET) mixer with a series feedback is proposed. With this configuration, a large synchronization bandwidth of almost 30% has been achieved using an original CAD technique. This bandwidth has been effectively measured on a Ku-band monolithic microwave integrated circuit (MMIC) circuit together with an ultra-low power consumption. Moreover, the processed circuit using a standard 0.2-/spl mu/m PHEMT technology (Philips-PML) is very compact (1.5 mm/sup 2/).

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