

Abstracts

Microwave regenerative dividers with low phase noise

E.S. Ferre-Pikal and F.L. Walls. "Microwave regenerative dividers with low phase noise." 1998 MTT-S International Microwave Symposium Digest 98.3 (1998 Vol. III [MWSYM]): 1447-1450.

We demonstrate regenerative divide-by-two (halver) circuits with very low phase modulation (PM) noise at input frequencies of 18.4 GHz and 39.8 GHz. The PM noise of the 18.4 to 9.2 GHz divider pair was $\text{Lscr}/(10 \text{ Hz}) = -134 \text{ dB}$ below the carrier in a 1 Hz bandwidth (dBc/Hz) and $\text{Lscr}/(10 \text{ MHz}) = -166 \text{ dBc/Hz}$, and the PM noise of the 39.8 GHz to 19.9 GHz divider pair was $\text{Lscr}/(10 \text{ Hz}) = -122 \text{ dBc/Hz}$ and $\text{Lscr}/(10 \text{ MHz}) = -167 \text{ dBc/Hz}$.

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