Title (en)
PLL NOISE SMOOTHING USING DUAL-MODULUS INTERLEAVING

Title (de)
PLL RAUSCHGLÄTTUNG MIT ZWEI-MODULUS VERSCHACHTELUNG

Title (fr)
LISSAGE DU BRUIT DANS UNE BOUCLE A PHASE ASSERVIE A L'AIDE DE L'ENTRELACEMENT A DOUBLE MODULE

Publication
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Application
EP 00952306 A 20000731

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Abstract (en)
[origin: WO0110028A1] The present invention, generally spreading, achieves noise spreading within a PLL using a dual-modulus prescaler by interleaving the division moduli. Within a given cycle, "ones" and "tens" are not all counted consecutively. Instead, ones and tens are interleaved. In one embodiment of the invention, the R count is doubled and the output of the R counter is toggled between high and low states. (The Q counter may remain unmodified). In another embodiment of the invention, ones and tens are interleaved in accordance with a ratio q:r. By so interleaving the modulus, the effect is to spread the noise resulting from the output signal of the dual-modulus prescaler over a wider frequency range. The prescaler noise level is greatly reduced, particularly within the frequency band of the reference frequency.

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