

Title (en)

ARRANGEMENT FOR ANGLE MODULATING A PHASE-LOCKED LOOP FREQUENCY SYNTHESIZER.

Title (de)

ANORDNUNG ZUR FREQUENZMODULATION EINES FREQUENZSYNTHESIERERS MIT PHASENSTARRER SCHLEIFE.

Title (fr)

DISPOSITIF DE MODULATION D'ANGLE D'UN SYNTHETISEUR DE FREQUENCE A BOUCLE A PHASE VERROUILLEE.

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Application

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Priority

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Abstract (en)

[origin: WO8103250A1] Various arrangements for eliminating undesired side effects of modulation deviation within a phase-locked loop frequency synthesizer are presented. Angle modulation is simultaneously applied to two or more points within the synthesizer in order to eliminate the modulation distortion and side band power during modulation otherwise presented in the phase-locked loop. In the preferred embodiment, modulation phase shifts which would otherwise be coupled to one of the signal inputs of the loop phase detector are cancelled before they reach the loop phase detector. Modulation is applied simultaneously to the loop voltage controlled oscillator (30) and a converting oscillator (52). The output signal of converting oscillator (52) is mixed with the output signal of voltage controlled oscillator (30) by a mixer (54) to cancel modulation deviation before the loop signal is coupled to divider (36) and to loop phase detector (24).

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