

Title (en)

IQ PHASE IMBALANCE CORRECTION METHOD IN CARTESIAN LINEARIZATION FEEDBACK PATH WITH DUAL PHASE SHIFTERS

Title (de)

VERFAHREN ZUR KORREKTUR VON IQ-PHASENUNGLEICHGEWICHT BEI EINEM KARTESISCHEN LINEARISIERUNGSRÜCKKOPPLUNGSWEG MIT DUALPHASENSCHIEBERN

Title (fr)

PROCÉDÉ DE CORRECTION D'UN DÉSÉQUILIBRE DE PHASES I/Q SUR UNE VOIE DE RETOUR À LINÉARISATION CARTÉSIENNE À L'AIDE DE DÉPHASEURS DOUBLES

Publication

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Application

EP 10762078 A 20100318

Priority

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- GB 0905576 A 20090331

Abstract (en)

[origin: GB2469076A] To implement phase training in a Cartesian transmitter, the phase training module 530 adjusts the Q phase shifter 546 to minimise the Q feedback signal Qfb with a test signal on the I input only and then the module 530 adjusts the I phase shifter 544 to minimise the I feedback signal Ifb with a test signal on the Q channel only, thereby effecting separate and independent phase corrections for the I and Q loops. The technique is useful in counteracting the not insubstantial IQ imbalance exhibited by local oscillator (LO) phase shifters using separate mixers for the I and Q LO signals (figure 4). The initial setting for the I phase shifter 544 during phase training may be set in accordance with the phase shift determined for the Q phase shifter (because the I and Q phase shifts will often be comparable), thereby reducing calibration time for the I phase shifter and reducing overall phase training time.

IPC 8 full level

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