

**Espacenet**

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DISTORTION COMPENSATOR

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Classification: - international: *H03F1/32; H03F3/189; H03F3/24; H04B1/04*
- cooperative:

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Abstract of JP2013118577 (A)

PROBLEM TO BE SOLVED: To improve distortion compensation accuracy of a power amplifier. ;SOLUTION: An LMS algorithm using a feedback signal that is an output signal of a power amplifier 1 input via an attenuator 17 and pseudorandom data calculates a delay of an input signal to the power amplifier 1 and a delay of the feedback signal. Specifically, the delays of the input signal and feedback signal are calculated such that the delay of the input signal is only an integer delay. An input signal to the power amplifier 1 is adjusted on the basis of the calculated delay, and a delay of a feedback signal is adjusted by an analog delay stage 41. Since the delay of the input signal is only an integer delay, a more accurate adjustment of the delay of the input signal matches the input signal with the feedback signal with higher accuracy to improve DPD mode distortion compensation accuracy. ;COPYRIGHT: (C)2013,JPO&INPIT;PROBLEM TO BE SOLVED: To improve distortion compensation accuracy of a power amplifier.SOLUTION: An LMS algorithm using a feedback signal that is an output signal of a power amplifier 1 input via an attenuator 17 and pseudorandom data calculates a delay of an input signal to the power amplifier 1 and a delay of the feedback signal. Specifically, the delays of the input signal and feedback signal are calculated such that the delay of the input signal is only an integer delay. An input signal to the power amplifier 1 is adjusted on the basis of the calculated delay, and a delay of a feedback signal is adjusted by an analog delay stage 41. Since the delay of the input signal is only an integer delay, a more accurate adjustment of the

delay of the input signal matches the input signal with the feedback signal with higher accuracy to improve DPD mode distortion compensation accuracy.