Abstracts

Analog predistortion linearizer for high-power RF amplifiers

Jaehyok Yi, Youngoo Yang, Myungkyu Park, Wonwoo Kang and Bumman Kim. "Analog predistortion linearizer for high-power RF amplifiers." 2000 Transactions on Microwave Theory and Techniques 48.12 (Dec. 2000 [T-MTT] (Special Issue on 2000 International Microwave Symposium)): 2709-2713.

We have developed an analog predistortion linearizer for a high-power amplifier of a code-division multiple-access (CDMA) base station. To effectively suppress the spectral regrowth in the adjacent channels, the odd-order intermodulation distortions (IMDs) should be cancelled. To accomplish this purpose, we employed a predistorter, which can cancel the third and fifth IMDs independently. The implemented predistorter linearized the RF amplifier with an average power of 45 dBm at 2.37-2.4-GHz band. A 9-dB suppression of spectral regrowth, from 33 to 42 dBc, was achieved for the CDMA signal with an 8.192-Mc/s chip rate over a 30-MHz bandwidth.

❑ Return to main document.