Abstracts

Novel adaptive linearization for digitally modulated multi-carrier power amplifier using pre-distorter cum cross-correlator (PDCC)

Y.W.M. Chia, Y. Zou and C.C. Ko. "Novel adaptive linearization for digitally modulated multi-carrier power amplifier using pre-distorter cum cross-correlator (PDCC)." 1999 MTT-S International Microwave Symposium Digest 99.4 (1999 Vol. IV [MWSYM]): 1839-1842 vol.4.

We have rigorously analysed and developed a novel adaptive predistorter cum cross-correlator to linearize the distortions due to a power amplifier for multi-carrier (MC) digitally modulated signals. The cross-correlator extracts the in-band and out-band intermodulation distortions which are exploited by the predistorter for linearization. Improvements in carrier/intermodulation (C/I), noise-power-ratio (NPR) and time domain are reported.

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