

Title (en)  
ADAPTIVE PREDISTORTION SYSTEM

Title (de)  
SYSTEM ZUR ADAPTIVEN VORVERZERRUNG

Title (fr)  
SYSTEME ADAPTABLE DE PREDISTORSION

Publication  
**EP 0951769 A1 19991027 (EN)**

Application  
**EP 97953556 A 19971224**

Priority  
• US 9724194 W 19971224  
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Abstract (en)  
[origin: WO9828888A1] A method and apparatus are described for adaptively predistorting a signal before it is transmitted by a transmitter (12, 14, 16, 18) in order to compensate for nonlinearities which are introduced. Statistical information regarding the received signal is accumulated at a receiver (24), and is preferably transmitted back to the transmitter for processing. The processing includes a constellation analysis to determine the distortion characteristics of the signal, which may includes bias, gain imbalance, lock and quad angle errors, and nonlinear distortions including AM-AM and AM-FM conversion effects, with all of these phenomena occurring anywhere in the transmitter-channel-receiver chain. From analysis of the statistics of the distortions in the received signal constellation, adjustments are made in the transmitter and/or receiver parameters. The positions of the signal symbols in the transmitted constellation are thereby correctively predistorted to compensate for and ameliorate the distortions in the received signal, thereby improving the fidelity of the said received signal.

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CPC (source: EP KR)  
**H04L 25/49** (2013.01 - KR); **H04L 27/368** (2013.01 - EP)

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**WO 9828888 A1 19980702**; AU 5728098 A 19980717; AU 738870 B2 20010927; CA 2274522 A1 19980702; EP 0951769 A1 19991027; IL 130264 A0 20000601; JP 2001507196 A 20010529; JP 3993640 B2 20071017; KR 20000062279 A 20001025; NO 993128 D0 19990623; NO 993128 L 19990820

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