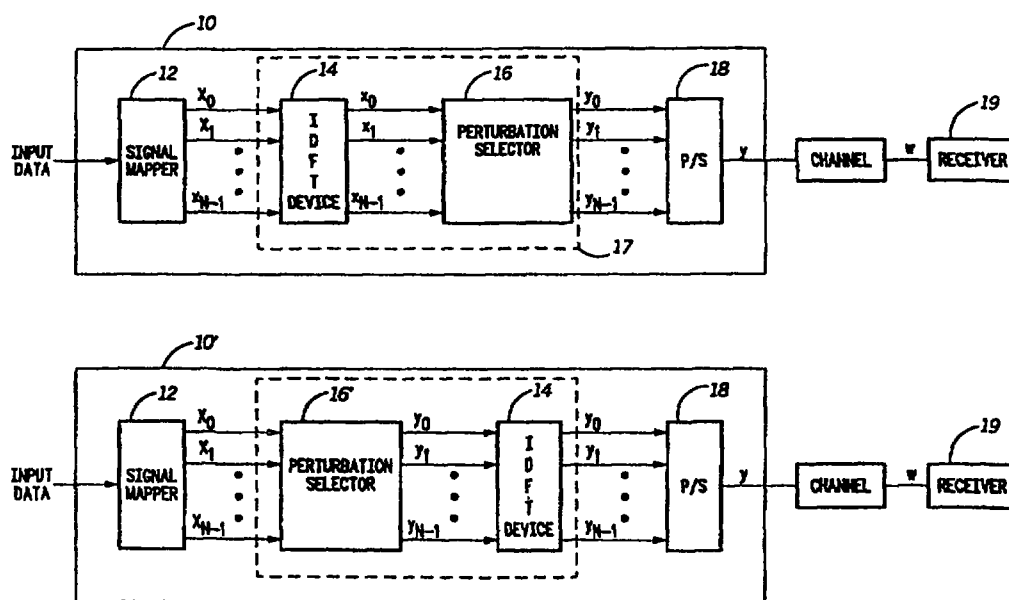




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(54) Title: SYSTEM, DEVICE AND METHOD FOR IMPROVING A DEFINED PROPERTY OF TRANSFORM-DOMAIN SIGNALS



(57) Abstract

In a transmitter (10) for transmitting data in blocks over a channel to a receiver (19), a device for improving a defined property of transform-domain symbols, the device, including: a signal mapper (12) which maps the input data into blocks of symbols in a first domain; wherein each of the symbols is chosen from a base constellation contained in an expanded constellation having expansion symbols, and wherein at least some of the symbols in the base constellation have one or more corresponding expansion symbols; and a perturbation transform device (14 and 16), responsive to the blocks of symbols, which produces for each block of symbols in the first domain a block of perturbed transform-domain symbols in order to improve a defined property of the transform-domain symbols.