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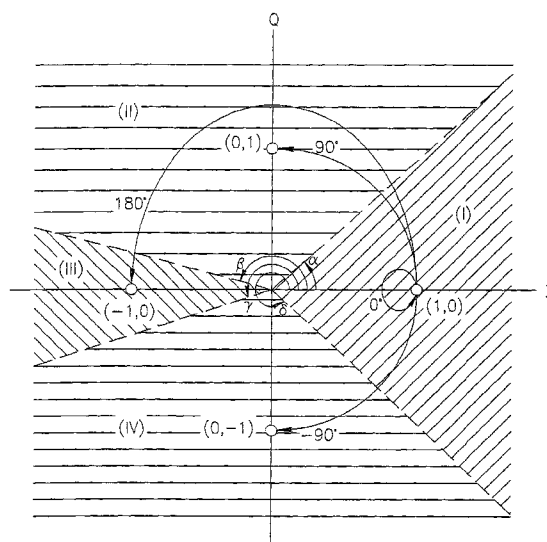
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(54) Title: TRANSMITTER HAVING A SIGMA-DELTA MODULATOR WITH A NON-UNIFORM POLAR QUANTIZER AND METHODS THEREOF



(57) Abstract: The invention relates to a sigma-delta N-phase keying modulator having non-uniform polar quantisation. According to one embodiment of the invention, a quantiser produces a quantised output so that it represents a symbol, selected from a set of N symbols, depending on to which of the N non-symmetric cells, covering the complex plane in a non-overlapping manner, the phase of said symbol belongs. This may reduce the occurrence of larger phase transitions, which may lead to increased efficiency. The selection of non-symmetric cell boundaries may also affect the noise shaping spectrum of a sigma-delta N-PSK modulator. The invention also relates to an N-phase keying modulation method and a mobile telephone or transmitter including the modulator described above.



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