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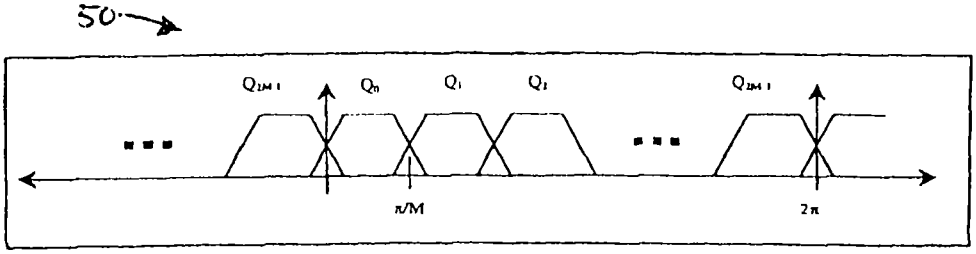
ACTION

(54) Title: UNIFIED FILTER BANK FOR AUDIO CODING



Magnitude response of the modulated filters $Q_k(z)$

(57) Abstract: A unified filter bank for use in encoding and decoding MPEG-1 audio data, wherein input audio data is encoded into coded audio data and the coded audio data is subsequently decoded into output audio data. The unified filter bank includes a plurality of filters, with each filter of the plurality of filters being a cosine modulation of a prototype filter. The unified filter bank is operational as an analysis filter bank during audio data encoding and as a synthesis filter bank during audio data decoding, wherein the unified filter bank is effective to substantially eliminate the effects of aliasing, phase distortion and amplitude distortion in the output audio data.

WO 02/101726 A1