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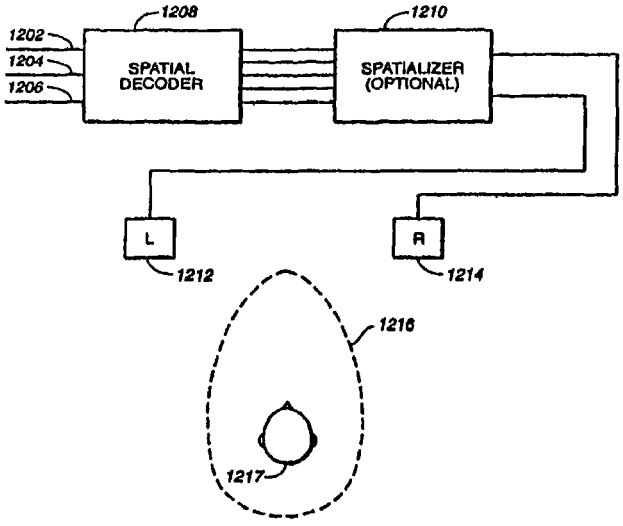

(57) Abstract

A spatial audio coding system, including an encoder and a decoder, operates at very low bit-rates and is useful for audio via the Internet. The listener or listeners preferably are located within a predictable listening area, for example, users of a personal computer or television viewers. An encoder produces a composite audio-information signal representing the soundfield to be reproduced and a directional vector or "steering control signal". The composite audio-information signal has its frequency spectrum broken into a number of subbands, preferably commensurate with the critical bands of the human ear. The steering control signal has a component relating to the dominant direction of the soundfield in each of the subbands. Because the system is based on the premise that only sound from a single direction is heard at any instant, the decoder need not apply a signal to more than two sound transducers at any instant.