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**LOW BIT RATE TRANSFORM CODER, DECODER AND
ENCODER/DECODER FOR HIGH-QUALITY AUDIO**

A transform encoder/decoder system employs a discrete transform,
10 adaptive transform coefficient quantization, and adaptive bit allocation
to encode high-quality music including broadcast and compact disc applica-
tions at low bit rates (128 kBits per second). A fixed number of bits is
allocated to low-frequency transform coefficients to reduce and/or elimi-
nate low-frequency artifacts. Other transform coefficients are nonuni-
15 formly quantized by assigning a fixed number of bits and a variable number
of bits determined adaptively based on psychoacoustic masking. A technique
is described for assigning the fixed bit and adaptive bit allocations. The
transmission of side information regarding adaptively allocated bits is
not required.

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