

AUDIO SIGNAL ENCODING AND DECODING METHOD, AND AUDIO SIGNAL ENCODING AND DECODING APPARATUS

ABSTRACT

5 Embodiments of the present invention provide an audio signal encoding and
decoding method, an audio signal encoding and decoding apparatus, a transmitter, a
receiver, and a communications system, which can improve encoding and/or decoding
performance. The audio signal encoding method includes: dividing a to-be-encoded
time domain signal into a low band signal and a high band signal; encoding the low
10 band signal to obtain a low frequency encoding parameter; calculating a voiced
degree factor according to the low frequency encoding parameter, and predicting a
high band excitation signal according to the low frequency encoding parameter, where
the voiced degree factor is used to indicate a degree of a voiced characteristic
presented by the high band signal; weighting the high band excitation signal and
15 random noise by using the voiced degree factor, so as to obtain a synthesized
excitation signal; and obtaining a high frequency encoding parameter based on the
synthesized excitation signal and the high band signal. Technical solutions in the
embodiments of the present invention can improve an encoding or decoding effect.

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Figure 1