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— 包括国际检索报告(条约第 21 条(3))。

(54) Title: SIGNAL ENCODING AND DECODING METHOD AND DEVICE THEREFOR

(54) 发明名称: 信号编码和解码方法以及设备

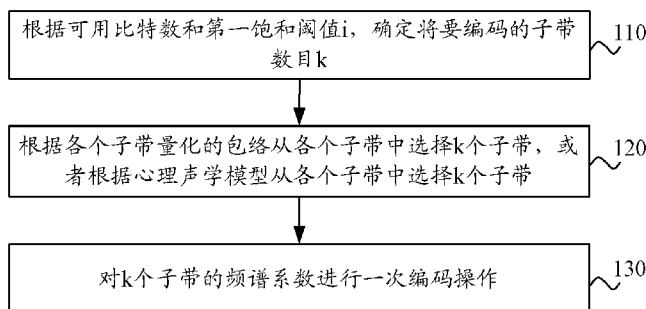


图1 / FIG. 1

- 110 DETERMINING A NUMBER K OF SUB-BANDS TO BE ENCODED ON THE BASIS OF THE NUMBER OF AVAILABLE BITS AND A FIRST SATURATION THRESHOLD VALUE I
- 120 SELECTING K SUB-BANDS FROM AMONG ALL THE SUB-BANDS ON THE BASIS OF THE QUANTIZED ENVELOPE OF EACH SUCH SUB-BAND, OR ON THE BASIS OF A PSYCHOACOUSTIC MODEL
- 130 PERFORMING A ONE-PASS ENCODING OPERATION ON THE SPECTRAL COEFFICIENTS OF THE K SUB-BANDS

(57) Abstract: Provided in the embodiments of the present invention are a method and a device for signal encoding and decoding. The method comprises: determining, on the basis of the number of available bits and of a first saturation threshold value i, a number k of sub-bands to be encoded, where i is a positive number and k is a positive integer; selecting k sub-bands from among all the sub-bands on the basis of the quantized envelope of each such sub-band, or on the basis of a psychoacoustic model; performing a one-pass encoding operation on the spectral coefficients of the k sub-bands. In the embodiments of the present invention, a number k of sub-bands to be encoded is determined on the basis of the number of available bits and of a first saturation threshold value, and k sub-bands are selected for encoding from among the several sub-bands rather than encoding the entire frequency band; this reduces the number of spectrum holes in signals to be decoded, thereby increasing the audio quality of output signals.

(57) 摘要: 本发明实施例提供了信号编码和解码方法以及设备。该方法包括: 根据可用比特数和第一饱和阈值 i, 确定将要编码的子带数目 k, 其中 i 为正数, k 为正整数; 根据各个子带量化的包络从各个子带中选择 k 个子带, 或者根据心理学模型从各个子带中选择 k 个子带; 对 k 个子

带的频谱系数进行一次编码操作。本发明实施例中, 通过根据可用比特数和第一饱和阈值确定将要编码的子带数目 k, 并从各个子带中选择 k 个子带来进行编码, 而非对整个频带进行编码, 能够减少解码信号的频谱空洞, 从而能够提升输出信号的听觉质量。