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(54) Title: METHOD, SYSTEM, DEVICE, AND ELECTRONIC SIGNATURE TOOL FOR AUDIO COMMUNICATION MODULATION SCHEME SELF-ADAPTATION

(54) 发明名称: 音频通信调制方式自适应的方法、系统、装置、电子签名工具

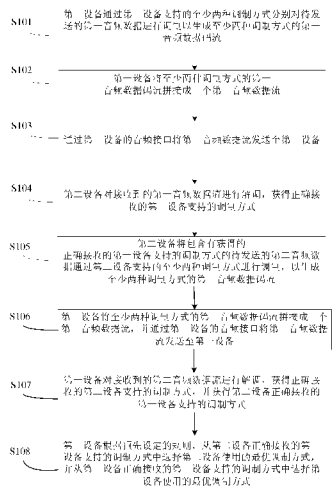


图 1 / FIG. 1

(57) Abstract: Provided in the present invention are a method, system, device, and electronic signature tool for audio communication modulation scheme self-adaptation. The method comprises the following steps: a first device modulates first audio data by means of at least two modulation schemes to generate first audio data code streams, and splices same into a first audio data stream for transmission to a second device; the second device determines, on the basis of the first audio data stream, the modulation schemes correctly received and supported by the first device, modulates by means of the at least two modulation schemes second audio data comprising the modulation schemes correctly received and supported by the first device to generate second audio data code streams, and splices same into a second audio data stream for transmission to the first device; the first device determines, on the basis of the second audio data stream, the modulation schemes correctly received and supported by the second device; and, the first device selects the optimal modulation scheme used thereby and the optimal modulation scheme used by the second device. The method allows for rapid determination of the audio modulation scheme, allows rapid exchange of audio data, and reduces loss of fidelity in exchanged data.

(57) 摘要:

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S101 Modulation by the first device of the to-be-transmitted first audio data respectively by means of the at least two modulation schemes supported by the first device to generate the first audio data code streams of the at least two modulation schemes
S102 Splicing by the first device of the first audio data code streams of the at least two modulation schemes into the one first audio data stream
S103 Transmission of the first audio data stream to the second device via the audio interface of the first device
S104 Demodulation by the second device of the first audio data stream received thereby, acquisition of the modulation schemes correctly received and supported by the first device
S105 Modulation by the second device of the to-be-transmitted second audio data comprising the modulation schemes correctly received and supported by the first device by means of the at least two modulation schemes supported by the second device to generate the second audio data code streams of the at least two modulation schemes
S106 Splicing by the second device of the second audio data code streams of the at least two modulation schemes into the one second audio data stream, and transmission of the second audio data stream to the first device via the audio interface of the second device
S107 Demodulation by the first device of the second audio data stream received thereby, acquisition of the modulation schemes correctly received and supported by the second device, and acquisition of the modulation schemes correctly received by the second device and supported by the first device
S108 Selection, on the basis of the predetermined rule, by the first device of the optimal modulation scheme used by the second device from the modulation schemes correctly received by the second device and supported by the first device, and selection of the optimal modulation scheme used by the first device from the modulation schemes correctly received by the first device and supported by the second device

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CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, — 包括国际检索报告(条约第 21 条(3))。
TG)。

本发明提出一种音频通信调制方式自适应的方法、系统、装置、电子签名工具。方法包括以下步骤：第一设备通过至少两种调制方式对第一音频数据调制生成第一音频数据码流，并将其拼接成第一音频数据流发送至第二设备；第二设备根据第一音频数据流确定正确接收的第一设备支持的调制方式，将含有正确接收的第一设备支持的调制方式的第二音频数据通过至少两种调制方式调制生成第二音频数据码流，并将其拼接成第二音频数据流发送至第一设备；第一设备根据第二音频数据流确定正确接收的第二设备支持的调制方式；第一设备选择第二设备使用的最优调制方式及其使用的最优调制方式。该方法可快速确定音频调试方式，使音频数据快速交互，降低交互数据失真度。