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

(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

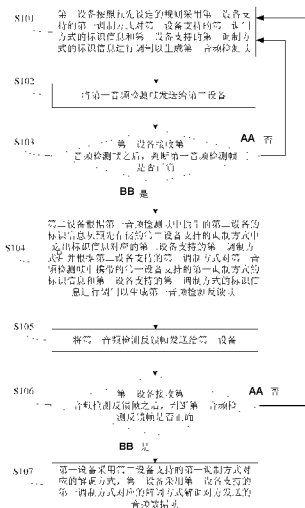


图 1 / FIG. 1

S101 IN ACCORDANCE WITH A PRESET RULE, A FIRST DEVICE USING A FIRST MODULATION MODE SUPPORTED BY THE FIRST DEVICE TO MODULATE IDENTIFIER INFORMATION ABOUT THE FIRST MODULATION MODE SUPPORTED BY THE FIRST DEVICE AND IDENTIFIER INFORMATION ABOUT A FIRST MODULATION MODE SUPPORTED BY A SECOND DEVICE TO GENERATE A FIRST AUDIO DETECTION FRAME
S102 SENDING THE FIRST AUDIO DETECTION FRAME TO THE SECOND DEVICE
S103 AFTER RECEIVING THE FIRST AUDIO DETECTION FRAME, THE SECOND DEVICE JUDGING WHETHER THE FIRST AUDIO DETECTION FRAME IS CORRECT
S104 ACCORDING TO IDENTIFIER INFORMATION ABOUT THE SECOND DEVICE WHICH IS CARRIED IN THE FIRST AUDIO DETECTION FRAME, THE SECOND DEVICE SELECTING FROM THE PRE-STORED MODULATION MODES SUPPORTED BY THE SECOND DEVICE THE FIRST MODULATION MODE SUPPORTED BY THE SECOND DEVICE WHICH CORRESPONDS TO THE IDENTIFIER INFORMATION, AND MODULATING THE IDENTIFIER INFORMATION ABOUT THE FIRST MODULATION MODE SUPPORTED BY THE FIRST DEVICE AND THE IDENTIFIER INFORMATION ABOUT THE FIRST MODULATION MODE SUPPORTED BY THE SECOND DEVICE TO GENERATE A FIRST AUDIO DETECTION FEEDBACK FRAME
S105 SENDING THE FIRST AUDIO DETECTION FEEDBACK FRAME TO THE FIRST DEVICE
S106 AFTER RECEIVING THE FIRST AUDIO DETECTION FEEDBACK FRAME, THE DEVICE JUDGING WHETHER THE FIRST AUDIO DETECTION FEEDBACK FRAME IS CORRECT
S107 THE FIRST DEVICE USING THE DEMODULATION MODE CORRESPONDING TO THE FIRST MODULATION MODE SUPPORTED BY THE SECOND DEVICE, AND THE SECOND DEVICE USING THE DEMODULATION MODE CORRESPONDING TO THE FIRST MODULATION MODE SUPPORTED BY THE FIRST DEVICE, TO DEMODULATE AN AUDIO DATA FRAME SENT BY THE OTHER PARTY
AA NO
BB YES

(57) Abstract: Provided are a self-adaptive method, system and device for audio communication modulation modes, and an electronic signature tool. The method comprises: a first device using a first modulation mode supported by the first device to modulate identifier information about the first modulation mode supported by the first device and identifier information about a first modulation mode supported by a second device to generate a first audio detection frame, and sending same to the second device; when the first audio detection frame is correct, according to the first modulation mode supported by the second device, the second device modulating the identifier information about the first modulation mode supported by the first device and the identifier information about the first modulation mode supported by the second device to generate a first audio detection feedback frame, and sending same to the first device; and when the first audio detection feedback frame is correct, the first device conducting two-way communications in the demodulation mode for the first modulation mode supported by the first device and the demodulation mode for the first modulation mode supported by the second device. The present invention can determine the audio modulation mode and demodulation mode quickly, thereby enabling audio data to interact quickly, and reducing the degree of distortion of the interactive data greatly.

(57) 摘要:

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BY, KG, KZ, RU, TJ, TM), 欧洲 (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG)。

本国际公布:

— 包括国际检索报告(条约第 21 条(3))。

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：第一设备采用所支持的第一调制方式对所支持的第一调制方式的标识信息和第二设备支持的第一调制方式的标识信息调制生成第一音频检测帧，发送给第二设备；第二设备在第一音频检测帧正确时根据所支持的第一调制方式对第一设备支持的第一调制方式的标识信息和所支持的第一调制方式的标识信息调制生成第一音频检测反馈帧，并发送给第一设备；第一设备在第一音频检测反馈帧正确时以第一设备支持的第一调制方式的解调方式和第二设备支持的第一调制方式的解调方式进行双向通信。本发明可快速确定音频调制方式和解调方式，使音频数据快速交互且大大降低交互数据失真度。