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— 包括国际检索报告(条约第 21 条(3))。

(54) Title: METHOD, DEVICE, AND ELECTRONIC SIGNATURE TOOL FOR AUDIO INTERFACE SELF-ADAPTATION

(54) 发明名称: 音频接口自适应方法、装置和电子签名工具

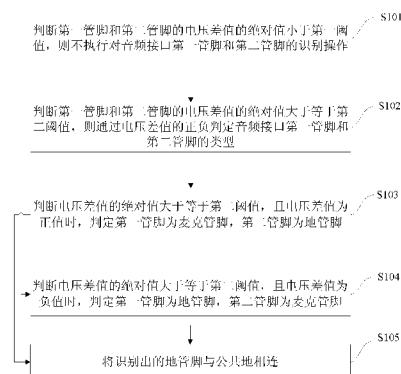


图 1 / FIG. 1

S101 IF THE ABSOLUTE VALUE OF THE VOLTAGE DIFFERENCE BETWEEN THE FIRST PIN AND THE SECOND PIN IS DETERMINED TO BE LESS THAN THE FIRST THRESHOLD VALUE, THEN NON-EXECUTION OF THE IDENTIFICATION OPERATION WITH RESPECT TO THE FIRST PIN AND THE SECOND PIN OF THE AUDIO INTERFACE

S102 IF THE ABSOLUTE VALUE OF THE VOLTAGE DIFFERENCE BETWEEN THE FIRST PIN AND THE SECOND PIN IS DETERMINED TO BE GREATER THAN OR EQUAL TO THE SECOND THRESHOLD VALUE, THEN DETERMINATION OF THE TYPES OF THE FIRST PIN AND OF THE SECOND PIN OF THE AUDIO INTERFACE VIA THE POSITIVITY/NEGATIVITY OF THE VOLTAGE DIFFERENCE

S103 WHEN THE ABSOLUTE VALUE OF THE VOLTAGE DIFFERENCE IS DETERMINED TO BE GREATER THAN OR EQUAL TO THE SECOND THRESHOLD VALUE, AND WHEN THE VOLTAGE DIFFERENCE IS POSITIVE, DETERMINATION OF THE FIRST PIN AS THE MICROPHONE PIN AND OF THE SECOND PIN AS THE GROUND PIN

S104 WHEN THE ABSOLUTE VALUE OF THE VOLTAGE DIFFERENCE IS DETERMINED TO BE GREATER THAN OR EQUAL TO THE SECOND THRESHOLD VALUE, AND WHEN THE VOLTAGE DIFFERENCE IS NEGATIVE, DETERMINATION OF THE FIRST PIN AS THE GROUND PIN AND OF THE SECOND PIN AS THE MICROPHONE PIN

S105 CONNECTION OF THE IDENTIFIED GROUND PIN TO THE COMMON GROUND

(57) Abstract: A method, device, and electronic signature tool for audio interface self-adaptation. The method comprises: if the absolute value of a voltage difference between first and second pins of an audio interface is determined to be less than a first threshold value, then not executing an identification operation with respect to the first and second pins of an audio interface (S101); if the absolute value of the voltage difference between the first and second pins is determined to be greater than or equal to a second threshold value, then determining the types of the first and second pins of the audio interface via the positivity/negativity of the voltage difference (S102), where the second threshold value is greater than or equal to the first threshold value; when the absolute value of the voltage difference is determined to be greater than or equal to the second threshold value, and when the voltage difference is positive, determining that the first pin is a microphone pin and that the second pin is a ground pin (S103), otherwise, determining that the first pin is the ground pin and that the second pin is the microphone pin (S104); and, connecting the identified ground pin to a common ground (S105). The detected ground pin is connected to the common ground of an audio signal receiver device to ensure normal communication between an audio signal transmitter device and the audio signal receiver device via the audio interface.

(57) 摘要:

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一种音频接口自适应方法、装置和电子签名工具，该方法包括：判断第一和第二管脚的电压差值的绝对值小于第一阈值，则不执行对音频接口第一和第二管脚的识别操作（S101）；判断第一和第二管脚的电压差值的绝对值大于等于第二阈值，则通过电压差值的正负判定音频接口第一和第二管脚的类型（S102）；第二阈值大于等于第一阈值；判断电压差值的绝对值大于等于第二阈值，且电压差值为正值时，判定第一管脚为麦克管脚，第二管脚为地管脚（S103），否则判定第一管脚为地管脚，第二管脚为麦克管脚（S104）；将识别出的地管脚与公共地相连（S105）。将检测出的地管脚与音频信号接收设备的公共地相连，以保证音频信号发送设备和音频信号接收设备正常的通过音频接口进行通信。