~~DEVICE AND METHOD FOR AUDIO SIGNAL UPLINK VIA AUDIO INTERFACE~~

FIELD

The present disclosure relates to an electronic technique field, and more particularly relates to an uplink transmission device for an audio signal via an audio interface, and an uplink transmission method for an audio signal via an audio interface.

BACKGROUND

An existing audio interface generally includes an audio output pin AUDIO, a ground pin GND and a microphone pin MIC. The audio output pin AUDIO generally includes a left-channel pin and/or a right-channel pin which normally are a third pin and a fourth pin of a four-section audio interface. There are two types of line sequences between a first pin and a second pin of the audio interface. As one type, the first pin is the microphone pin MIC, and the second pin is the ground pin GND. As the other type, the first pin is the ground pin GND, and the second pin is the microphone pin MIC.

When the audio interface is transmitting data, downlink audio signals are transmitted by an audio output pin AUDIO which may be one or both of the left-channel pin and the right-channel pin, while uplink audio signals are transmitted by the microphone pin MIC.

If not measured, a line sequence of the first pin and the second pin of an existing audio interface is unknown. Therefore, when transmitting an uplink audio signal, the line sequence of the first pin and the second pin of the audio interface needs to be measured so as to obtain the microphone pin MIC for transmitting the uplink audio signal. Measuring the line sequence of the first pin and the second pin of the audio interface requires extra works and is not convenient.

Thus, a device that ensures transmission of an uplink audio signal in case the line sequence of the audio interface is unknown is required.

SUMMARY

The present disclosure seeks to solve at least one of the above problems.

Accordingly, an objective of the present disclosure is to provide an uplink transmission device for an audio signal.

Another objective of the present disclosure is to provide an uplink transmission method for an

WHAT IS CLAIMED IS:

1. An uplink transmission device for an audio signal via an audio interface, wherein

a first pin of the audio interface is connected to an uplink audio signal generating device via a first circuit;

a second pin of the audio interface is connected to the uplink audio signal generating device via a second circuit; and

the first circuit and the second circuit are attenuation circuits for each other.

2. The device according to claim 1, wherein

the first pin of the audio interface is one of a microphone pin and a ground pin; and

the second pin of the audio interface is the other one of the microphone pin and the ground pin.

3. The device according to claim 2, wherein

the first circuit is a filter circuit or a voltage-dividing circuit; and

the second circuit is a filter circuit or a voltage-dividing circuit.

4. The device according to claim 3, wherein

the first circuit and the second circuit are symmetric attenuation circuits for each other.

5. The device according to claim 3, wherein

the first circuit and the second circuit are asymmetric attenuation circuits for each other.

6. An uplink transmission method for an audio signal via an audio interface, comprising:

connecting a first pin of the audio interface to an uplink audio signal generating device via a first circuit; and

connecting a second pin of the audio interface to the uplink audio signal generating device via a second circuit,

wherein the first circuit and the second circuit are attenuation circuits for each other.

7. The method according to claim 6, wherein

the first pin of the audio interface is one of a microphone pin and a ground pin; and

the second pin of the audio interface is the other one of the microphone pin and the ground pin.

8. The method according to claim 7, wherein

the first circuit is a filter circuit or a voltage-dividing circuit; and

the second circuit is a filter circuit or a voltage-dividing circuit.

9. The method according to claim 8, wherein

the first circuit and the second circuit are symmetric attenuation circuits for each other.

10. The method according to claim 8, wherein

the first circuit and the second circuit are asymmetric attenuation circuits for each other.

UPLINK TRANSMISSION DEVICE AND METHOD FOR AUDIO SIGNAL VIA AUDIO INTERFACE

FIELD

The present disclosure relates to an electronic technique field, and more particularly relates to an uplink transmission device for an audio signal via an audio interface, and an uplink transmission method for an audio signal via an audio interface.

BACKGROUND

An existing audio interface generally includes an audio output pin AUDIO, a ground pin GND and a microphone pin MIC. The audio output pin AUDIO generally includes a left-channel pin and/or a right-channel pin which normally are a third pin and a fourth pin of a four-section audio interface. There are two types of line sequences between a first pin and a second pin of the audio interface. As one type, the first pin is the microphone pin MIC, and the second pin is the ground pin GND. As the other type, the first pin is the ground pin GND, and the second pin is the microphone pin MIC.

When the audio interface is transmitting data, downlink audio signals are transmitted by an audio output pin AUDIO which may be one or both of the left-channel pin and the right-channel pin, while uplink audio signals are transmitted by the microphone pin MIC.

If not measured, a line sequence of the first pin and the second pin of an existing audio interface is unknown. Therefore, when transmitting an uplink audio signal, the line sequence of the first pin and the second pin of the audio interface needs to be measured so as to obtain the microphone pin MIC for transmitting the uplink audio signal. Measuring the line sequence of the first pin and the second pin of the audio interface requires extra works and is not convenient.

Thus, a device that ensures transmission of an uplink audio signal in case the line sequence of the audio interface is unknown is required.

SUMMARY

The present disclosure seeks to solve at least one of the above problems.

Accordingly, an objective of the present disclosure is to provide an uplink transmission device for an audio signal.

Another objective of the present disclosure is to provide an uplink transmission method for an

WHAT IS CLAIMED IS:

1. An uplink transmission device for an audio signal via an audio interface, wherein

a first pin of the audio interface is connected to a signal output terminal of an uplink audio signal generating device via a first circuit;

a second pin of the audio interface is connected to the signal output terminal of the uplink audio signal generating device via a second circuit, wherein

the first pin of the audio interface is one of a microphone pin and a ground pin;

the second pin of the audio interface is the other one of the microphone pin and the ground pin; and

the first circuit and the second circuit are attenuation circuits for each other.

2. The device according to claim 1, wherein

the first circuit is a filter circuit or a voltage-dividing circuit; and

the second circuit is a filter circuit or a voltage-dividing circuit.

3. The device according to claim 2, wherein

the first circuit and the second circuit are symmetric attenuation circuits for each other.

4. The device according to claim 2, wherein

the first circuit and the second circuit are asymmetric attenuation circuits for each other.

5. An uplink transmission method for an audio signal via an audio interface, comprising:

connecting a first pin and a second pin of the audio interface to a signal output terminal of an uplink audio signal generating device in a mutual attenuation manner, wherein

the first pin of the audio interface is one of a microphone pin and a ground pin;

the second pin of the audio interface is the other one of the microphone pin and the ground pin; and

connecting a first pin and a second pin of the audio interface to a signal output terminal of an uplink audio signal generating device in a mutual attenuation manner comprises: connecting the first pin of the audio interface to the signal output terminal of the uplink audio signal generating device via a first circuit; and connecting the second pin of the audio interface to the signal output terminal of the uplink audio signal generating device via a second circuit.

6. The method according to claim 5, wherein

the first circuit is a filter circuit or a voltage-dividing circuit; and

the second circuit is a filter circuit or a voltage-dividing circuit.

7. The method according to claim 5, wherein

the first circuit and the second circuit are symmetric attenuation circuits for each other.

8. The method according to claim 5, wherein

the first circuit and the second circuit are asymmetric attenuation circuits for each other.