CLAIMS

1. A multi-mode sound reproduction system for reproduction of both stereophonic signals and multi-channel audio signals, the system including:

a first pair of speakers positioned on a left portion of a user, the user being at a pre-determined facing, the first pair of speakers comprising a first primary speaker which is stackable with a first secondary speaker;

a second pair of speakers positioned on a right portion of the user, the user being at the pre-determined facing, the second pair of speakers comprising a second primary speaker which is stackable with a second secondary speaker; and

an arrangement of electronic components for controlling output of audio signals from the first pair and the second pair of speakers,

wherein in a first mode with the first and second pair of speakers in an unstacked configuration, the signals do not pass through the arrangement of electronic components prior to output,

wherein in a second mode with each of the first and second pair of speakers in a stacked configuration, the arrangement of electronic components allows either stereophonic signals or multi-channel audio signals to be separately processed and reproduced in the first pair and the second pair of speakers.

2. The system of claim 1, wherein the arrangement of electronic components forms a device selected from the group consisting of: low pass filter, high pass filter, band-pass filter, crosstalk canceller and any combination of the aforementioned.

3. The system of claim 1, wherein stacking of speakers is detectable by using a detector selected from the group consisting of: a light sensor, a force sensor, and a mechanical switch.

4. The system of claim 1, wherein stacking is either vertical or horizontal.

5. The system of claim 1, wherein each speaker includes at least one driver.

6. The system of claim 5, wherein the pre-determined facing is towards the at least one driver of the primary speakers.

7. A method for reproduction of both stereophonic signals and multi-channel audio signals using a sound reproduction system with a first pair of speakers comprising a first primary speaker and a first secondary speaker, and a second pair of speakers comprising a second primary speaker and a second secondary speaker, the method including:

determining whether input signals are either stereophonic or multi-channel;

determining a physical configuration of the first pair of speakers and the second pair of speakers; and

reproducing the input signals depending on at least one of: a type of the input signals, and the physical configuration,

wherein in a first mode with the first and second pair of speakers in an unstacked configuration, the signals are not processed prior to output,

wherein in a second mode with each of the first and second pair of speakers in a stacked configuration, either stereophonic signals or multi-channel audio signals are separately processed and reproduced in the first pair and the second pair of speakers.

8. The method of claim 7, wherein reproduction of the input signals is performed using an arrangement of electronic components forming a device selected from the group consisting of: low pass filter, high pass filter, band-pass filter, crosstalk canceller, and any combination of the aforementioned.

9. The method of claim 7, wherein the physical configuration is detectable by using a detector selected from the group consisting of: a light sensor, a force sensor, and a mechanical switch.

10. The method of claim 7, wherein the stacked configuration is either vertical or horizontal.

11. The method of claim 7, wherein each speaker includes at least one driver.

What is claimed is:

1. A multi-mode sound reproduction system for reproduction of both stereophonic signals and multi-channel audio signals, the system including:

at least one pair of speakers, each of the at least one pair of speakers comprising a primary speaker and a secondary speaker, the primary speaker being stackable with the secondary speaker;

an arrangement of electronic components for controlling output of audio signals from the at least one pair of speakers in a manner such that:

when the primary and secondary speakers are not stacked, the signals do not pass through the arrangement of electronic components and are thus unprocessed, and

when the primary and secondary speakers are stacked, the arrangement of electronic components allows either stereophonic signals or multi-channel audio signals to be separately processed; and

a multiplexer configurable to receive either the unprocessed signals or the separately processed signals, the multiplexer being further configurable to output either the unprocessed signals or separately processed signals via the at least one pair of speakers.

2. The system of claim 1, wherein the arrangement of electronic components forms a device selected from the group consisting of: low pass filter, high pass filter, band-pass filter, crosstalk canceller and any combination of the aforementioned.

3. The system of claim 1, wherein stacking of speakers is detectable by using a detector selected from the group consisting of: a light sensor, a force sensor, and a mechanical switch.

4. The system of claim 1, wherein stacking is either vertical or horizontal.

5. The system of claim 1, wherein each speaker includes at least one driver.

6. The system of claim 1, the at least one pair of speakers comprising:

a first pair of speakers positioned on a left portion of a user, the user being at a pre-determined facing, the first pair of speakers comprising a first primary speaker which is stackable with a first secondary speaker; and

a second pair of speakers positioned on a right portion of the user, the user being at the pre-determined facing, the second pair of speakers comprising a second primary speaker which is stackable with a second secondary speaker.

7. The system of claim 6, wherein the pre-determined facing is towards the at least one driver of the primary speakers.

8. The system of claim 1, wherein the arrangement of electronic components includes a crosstalk canceller for processing multi-channel audio signals.

9. The system of claim 1 further comprising a multiplexer coupled to the arrangement of electronic components in a manner such that:

when the primary and secondary speakers are stacked, regardless whether the signals are stereophonic audio signals or multi-channel audio signals, the arrangement of electronic components are configured to process the signals prior to the signals being communicated to the multiplexer.

10. The system of claim 1 comprising at least two pairs of speakers, wherein if one pair of speakers is stacked while the other pair of speaker is not stacked,

the arrangement of electronic components are configured to allow either stereophonic signals or multi-channel audio signals to be separately processed and reproduced in the stacked pair of speakers, and

for the pair of stacked speakers not stacked, the signals do not pass through the arrangement of electronic components prior to output.