CLAIMS

1. A heat dissipation device for a moving-coil loudspeaker, comprising: a thermally conductive pad, a thermally conductive bar, and a heat sink, the thermally conductive pad, the thermally conductive bar and the heat sink being integrally mounted at an axially central portion of the loudspeaker; wherein:

the thermally conductive bar is axially connected to the thermally conductive pad and the heat sink at top and bottom thereof respectively, the thermally conductive bar is axially provided with a through hole or a groove at a circle center thereof, the heat sink is axially provided with a through hole in which a screw is tapped, an upper-end plane of the thermally conductive pad is provided with a circuit board formed of electronic components, a central groove at a top end of the thermally conductive bar is aligned with a groove on the thermally conductive pad to form a straight line groove such that a communication passage leading to an exterior of the loudspeaker is provided for the electronic components on the circuit board.

2. The heat dissipation device for a moving-coil loudspeaker according to claim 1, wherein the thermally conductive pad is positioned at one end of a voice coil of the loudspeaker, and is mounted as abutting against a surface of an upper magnetically conductive plate or a magnetic column.

3. The heat dissipation device for a moving-coil loudspeaker according to claim 1, wherein the thermally conductive pad is axially provided with an opening at a center thereof and radially provided with a groove crossing a circle center thereof.

4. The heat dissipation device for a moving-coil loudspeaker according to claim 1, wherein the thermally conductive and the thermally conductive bar are combined into an integral heat conduction bar which is axially provided with grooves on lateral sides.

5. The heat dissipation device for a moving-coil loudspeaker according to claim 4, wherein the there are two lateral sides.

6. The heat dissipation device for a moving-coil loudspeaker according to claim 1, wherein the moving-coil loudspeaker is an outer-magnet loudspeaker or an inner-magnet loudspeaker, the heat sink is positioned at an exterior of a lower magnetically

conductive plate of the outer-magnet loudspeaker or an exterior of a magnetically conductive bowl of the inner-magnet loudspeaker, the lower magnetically conductive plate of the outer-magnet loudspeaker or the magnetically conductive bowl of the inner-magnet loudspeaker being axially provided with a through hole at a circle center thereof.

7. The heat dissipation device for a moving-coil loudspeaker according to claim 6, wherein a heat sink of the out-magnet loudspeaker is of a sheet shape, and a heat sink of the inner-magnet loudspeaker is of a bowl shape.

8. The heat dissipation device for a moving-coil loudspeaker according to claim 1, wherein the thermally conductive pad, the thermally conductive bar, and the heat sink are made of a thermally conductive metal.

9. The heat dissipation device for a moving-coil loudspeaker according to claim 1, wherein the thermally conductive bar is a bolt-shaped thermally conductive bar and is twisted with threads at a tail end thereof.

10. The heat dissipation device for a moving-coil loudspeaker according to claim 6, wherein a magnetic column and a permanent magnet of the inner-magnet loudspeaker are both axially provided with a through hole at circle centers thereof, a non-grooved plane of the thermally conductive pad abuts against a magnetic column of the inner-magnet loudspeaker, the thermally conductive pad hole-to-hole passes through the thermally conductive pad, the magnetic column, and the permanent magnet sequentially, and fastens and locks the heat sink via threads and screws, such that the heat sink is tightly clasped on a basin frame of the inner magnet loudspeaker.

11. The heat dissipation device for a moving-coil loudspeaker according to claim 1, wherein a magnetic pole of the outer-magnet loudspeaker is axially provided with a through hole at a circle center thereof, the thermally conductive bar hole-to-hole passes through the magnetic pole and the lower magnetically conductive plate sequentially, and fastens and locks the heat sink outside the lower magnetically conductive plate via threads and screws.

12. The heat dissipation device for a moving-coil loudspeaker according to claim 1, wherein a basin frame of the moving-coil loudspeaker is positioned outside a speaker sound box, heat generated by a voice coil and the electronic components of the loudspeaker is transferred to the basin frame of the moving-coil loudspeaker, and is dissipated outside the speaker sound box.

13. The heat dissipation device for a moving-coil loudspeaker according to claim 12, wherein the basin frame of the moving-coil loudspeaker is a cast aluminum basin frame.

14. The heat dissipation device for a moving-coil loudspeaker according to claim 1, wherein heat generated by a voice coil of the moving-coil loudspeaker is transferred through the thermally conductive pad, the thermally conductive bar, and the heat sink via a magnetic fluid, to a basin frame of the moving-coil loudspeaker, for dissipation outside a speaker sound box.

15. The heat dissipation device for a moving-coil loudspeaker according to claim 1, wherein heat generated by the electronic components is transferred through the thermally conductive pad, the thermally conductive bar, and the heat sink via the circuit board, to a basin frame of the moving-coil loudspeaker, for dissipation outside a speaker sound box.

16. The heat dissipation device for a moving-coil loudspeaker according to claim 1, wherein the thermally conductive pad is a circular sheet-shaped thermally conductive pad.

CLAIMS

1. A heat dissipation device for a moving-coil loudspeaker, comprising: a thermally conductive pad, a thermally conductive bar, and a heat sink, wherein the thermally conductive pad, the thermally conductive bar and the heat sink are mounted at an axially central portion of the moving-coil loudspeaker; wherein: the thermally conductive bar is axially connected to the thermally conductive pad and the heat sink at top and bottom thereof respectively, the thermally conductive bar is axially provided with a through hole or a groove at a circle center thereof, the heat sink is axially provided with a through hole, an upper-end plane of the thermally conductive pad is mounted as abutting against a circuit board formed of electronic components, a central groove at a top end of the thermally conductive bar is aligned with a groove on the thermally conductive pad to form a straight line groove such that a communication passage leading to an exterior of the moving-coil loudspeaker is provided for the electronic components on the circuit board.

2. The heat dissipation device for a moving-coil loudspeaker according to claim 1, wherein the thermally conductive pad is positioned at one end of a voice coil of the moving-coil loudspeaker, and is mounted as abutting against a surface of an upper magnetically conductive plate of the moving-coil loudspeaker or a magnetic column of the moving-coil loudspeaker.

3. The heat dissipation device for a moving-coil loudspeaker according to claim 1, wherein the thermally conductive pad is axially provided with an opening at a center thereof and radially provided with a groove crossing a circle center thereof.

4. The heat dissipation device for a moving-coil loudspeaker according to claim 1, wherein the thermally conductive pad and the thermally conductive bar are combined into an integral heat conduction bar which is axially provided with grooves on lateral sides.

5. The heat dissipation device for a moving-coil loudspeaker according to claim 4, wherein the there are two lateral sides.

6. The heat dissipation device for a moving-coil loudspeaker according to claim 1, wherein the moving-coil loudspeaker is an outer-magnet loudspeaker or an inner-magnet loudspeaker, the heat sink is positioned at an exterior of a lower magnetically conductive plate of the outer-magnet loudspeaker or an exterior of a magnetically conductive bowl of the inner-magnet loudspeaker, and the lower magnetically conductive plate of the outer-magnet loudspeaker or the magnetically conductive bowl of the inner-magnet loudspeaker is axially provided with a through hole at a circle center thereof.

7. The heat dissipation device for a moving-coil loudspeaker according to claim 6, wherein a heat sink of the outer-magnet loudspeaker is of a sheet shape, or a heat sink of the inner-magnet loudspeaker is of a bowl shape.

8. The heat dissipation device for a moving-coil loudspeaker according to claim 6, wherein a magnetic column and a permanent magnet of the inner-magnet loudspeaker are both axially provided with a through hole at circle centers thereof, a non-grooved plane of the thermally conductive pad abuts against a magnetic column of the inner-magnet loudspeaker, the thermally conductive bar hole-to-hole passes through the thermally conductive pad, the magnetic column, and the permanent magnet sequentially, and fastens and locks the heat sink via threads and screws, such that the heat sink is tightly clasped on a basin frame of the inner magnet loudspeaker.

9. The heat dissipation device for a moving-coil loudspeaker according to claim 6, wherein a magnetic pole of the outer-magnet loudspeaker is axially provided with a through hole at a circle center thereof, the thermally conductive bar hole-to-hole passes through the magnetic pole and the lower magnetically conductive plate sequentially, and fastens and locks the heat sink outside the lower magnetically conductive plate via threads and screws.

10. The heat dissipation device for a moving-coil loudspeaker according to claim 1, wherein the thermally conductive pad, the thermally conductive bar, and the heat sink are made of a thermally conductive metal.

11. The heat dissipation device for a moving-coil loudspeaker according to claim 1, wherein the thermally conductive bar is a bolt-shaped thermally conductive bar and is twisted with threads at a tail end thereof.

12. The heat dissipation device for a moving-coil loudspeaker according to claim 1, wherein a basin frame of the moving-coil loudspeaker is positioned outside a speaker, heat generated by a voice coil and the electronic components of the moving-coil loudspeaker is transferred to the basin frame of the moving-coil loudspeaker, and is dissipated outside the speaker.

13. The heat dissipation device for a moving-coil loudspeaker according to claim 12, wherein the basin frame of the moving-coil loudspeaker is a cast aluminum basin frame.

14. The heat dissipation device for a moving-coil loudspeaker according to claim 1, wherein heat generated by a voice coil of the moving-coil loudspeaker is transferred to the thermally conductive pad via a magnetic fluid, the thermally conductive bar, and the heat sink sequentially, to a basin frame of the moving-coil loudspeaker, for dissipation outside a speaker.

15. The heat dissipation device for a moving-coil loudspeaker according to claim 1, wherein heat generated by the electronic components is transferred to the thermally conductive pad via the circuit board, the thermally conductive bar, and the heat sink sequentially, to a basin frame of the moving-coil loudspeaker, for dissipation outside a speaker.

16. The heat dissipation device for a moving-coil loudspeaker according to claim 1,

wherein the thermally conductive pad is a circular sheet-shaped thermally conductive pad.

17. The heat dissipation device for a moving-coil loudspeaker according to claim 1, wherein the thermally conductive bar is a bolt-shaped thermally conductive bar.