CLAIMS

What is claimed is:

1. A cooking appliance, comprising:

a microwave generation system comprising:

a waveguide box defining a first chamber and a second chamber that are connected with each other, the first chamber being located above the second chamber, and a dimension of the first chamber in a horizontal direction being smaller than a dimension of the second chamber in the horizontal direction;

a magnetron mounted at a side wall of the first chamber and configured to transmit microwaves into the first chamber; and

a microwave stirring assembly mounted at a top wall of the second chamber and comprising a stirring member configured to reflect the microwaves;

a machine body, wherein the microwave generation system is disposed at the machine body;

an air duct assembly disposed at the machine body and having a plurality of air flowing channels; and

a plurality of to-be-heat-dissipated members,

wherein the air duct assembly comprises an air duct housing having an air inlet, an air outlet, and the plurality of air flowing channels corresponding to the plurality of to-be-heat-dissipated members, each of the plurality of air flowing channels being connected to each of the air inlet and the air outlet, and each of the plurality of to-be-heat-dissipated members being at least partially disposed in a corresponding one of the plurality of air flowing channels.

2. The cooking appliance according to claim 1, wherein:

the first chamber has a first side wall and a second side wall that are opposite to each other;

the magnetron has a transmitting end penetrating the first side wall and extending into the

first chamber; and

the microwave stirring assembly is at least partially located at a side of the second side wall facing away from the first side wall.

3. The cooking appliance according to claim 1 or 2, wherein the microwave stirring assembly further comprises a driver located above the top wall of the second chamber, wherein the driver has an output shaft penetrating the top wall of the second chamber and connected to the stirring member.

4. The cooking appliance according to any one of claims 1 to 3, wherein the stirring member is a metallic plate, the metallic plate having a through hole for allowing for a passage of the microwaves.

5. The cooking appliance according to any one of claims 1 to 4, wherein the stirring member is a rectangular plate.

6. The cooking appliance according to claim 1, wherein the waveguide box is disposed above the machine body, and the stirring member is located in the machine body and at least partially located below a microwave outlet of the second chamber.

7. The cooking appliance according to claim 6, wherein:

the microwave stirring assembly further comprises a driver;

a top wall of the machine body has a first mounting hole;

a metallic shaft sleeve and a plastic shaft sleeve are provided at the first mounting hole, the plastic shaft sleeve being arranged around the metallic shaft sleeve; and

the metallic shaft sleeve is arranged around an output shaft of the driver and connected to the stirring member.

8. The cooking appliance according to claim 6 or 7, further comprising:

a spacer engaged with a top wall of the machine body to define an accommodation space, the stirring member being disposed in the accommodation space.

9. The cooking appliance according to claim 8, wherein the machine body is provided with a heating member, the heating member being disposed at a side of the spacer facing away from the stirring member.

10. The cooking appliance according to claim 8 or 9, further comprising:

a fixation member connected to the top wall of the machine body, a peripheral edge of the

spacer being sandwiched between the fixation member and the top wall of the machine body; and

a seal ring connected to the peripheral edge of the spacer.

11. The cooking appliance according to any one of claims 8 to 10, wherein the spacer is made of borosilicate glass, mica sheet, transmissive plastic, or transmissive foam.

12. The cooking appliance according to claim 1,

wherein the machine body has a cooking cavity and an air inflow cavity, the air inflow cavity is located above the cooking cavity,

wherein the plurality of to-be-heat-dissipated members are disposed in the air inflow cavity, the plurality of to-be-heat-dissipated members comprising a frequency converter, a controller, and the magnetron, the frequency converter and the magnetron being arranged in a left-right direction, and the controller being located in front of the frequency converter, and

wherein the air duct housing disposed in the air inflow cavity, the plurality of air flowing channels of the air duct housing having a first air flowing channel, a second air flowing channel, and a third air flowing channel that are connected with the air inflow cavity, at least part of the frequency converter being disposed in the first air flowing channel, at least part of the controller being disposed in the second air flowing channel, and at least part of the magnetron being disposed in the third air flowing channel,

wherein the air inlet comprises a first inlet, the first inlet being connected to a rear part of the air inflow cavity, and the air outlet being connected to a front part of the airflow cavity.

13. The cooking appliance according to claim 12, wherein the air duct housing comprises a first air duct member, the first air flowing channel being formed in the first air duct member, and the frequency converter being disposed in the first air flowing channel.

14. The cooking appliance according to claim 13, wherein the first air duct member comprises a first ventilation pipe and a first air guide member, wherein:

the first ventilation pipe has an end connected to the first air inlet and another end connected to a rear end of the first air guide member;

the first air guide member has a front end connected to the air outlet;

the frequency converter is disposed in the first ventilation pipe; and

the first air guide member has a ventilation area decreasing gradually from rear to front.

15. The cooking appliance according to claim 14, wherein the first air guide member is detachably disposed at the first ventilation pipe.

16. The cooking appliance according to any one of claims 12 to 15, wherein the air duct housing comprises a second ventilation pipe adapted to blow air towards the controller, the controller being disposed in the second air flowing channel.

17. The cooking appliance according to claim 16, wherein the second ventilation pipe comprises a lower half pipe segment and an upper half pipe segment detachably disposed at the lower half pipe segment.

18. The cooking appliance according to any one of claims 12 to 17, wherein the air duct housing comprises a third air duct member, the third air flowing channel being formed in the third air duct member, and the magnetron being disposed in the third air flowing channel.

19. The cooking appliance according to claim 18, wherein the plurality of to-be-heat-dissipated members further comprises a condenser pipe disposed in the third air flowing channel and located in front of the magnetron.

20. The cooking appliance according to any one of claims 12 to 19, wherein the first air flowing channel, the second air flowing channel, and the third air flowing channel extend in a front-rear direction and are arranged in parallel in the left-right direction.

21. The cooking appliance according to any one of claims 12 to 20, further comprising a driving device disposed in the air inflow cavity and located between the first air inlet and the air duct housing.

22. The cooking appliance according to claim 21, wherein the air inlet further comprises a second inlet, the second inlet being connected to a rear part of the air inflow cavity, the first inlet and the second inlet being formed at a left cavity wall and a right cavity wall of the air inflow cavity, respectively.

23. The cooking appliance according to claim 22, wherein the air inlet further comprises a third inlet connected to the front part of the air inflow cavity, the air duct housing having an air inflow channel connecting the third inlet to the driving device.

24. The cooking appliance according to claim 1, further comprising:

a door body assembly pivotally disposed at the machine body, to expose or cover the access opening, wherein the machine body has a cooking cavity with an access opening at a

side of the cooking cavity, the cooking cavity has a wall surface with an enamel coating.

25. The cooking appliance according to claim 24, wherein the microwave generation system comprises:

a microwave housing having a first receiving cavity, a second receiving cavity, a waveguide cavity, and an accommodation space;

the magnetron is disposed in the first receiving cavity and configured to transmit microwaves towards the waveguide cavity;

the stirring member is disposed in the accommodation space; and

a driver disposed in the second receiving cavity and in a transmission connection with the stirring member.

26. The cooking appliance according to claim 25, wherein:

the waveguide cavity has the first chamber and the second chamber connected to a lower part of the first chamber;

the first receiving cavity is located at a side of the waveguide cavity;

the magnetron has a transmitting end extending into the first chamber from a side wall of the first chamber;

the accommodation space is located below the waveguide cavity; and

the second receiving cavity is located above the second chamber.

27. The cooking appliance according to claim 26, wherein:

a rotation axis of a drive shaft of the driver extends in a vertical direction;

a first through hole is formed between the second receiving cavity and the second chamber;

a second through hole is formed between the second chamber and the accommodation space; and

the drive shaft passes through the first through hole and the second through hole to be connected to the stirring member.

28. The cooking appliance according to claim 27, wherein a shaft sleeve assembly is provided at the second through hole, the shaft sleeve assembly comprising:

a first shaft sleeve arranged around the drive shaft, the first shaft sleeve being a metallic shaft sleeve; and

a second shaft sleeve arranged around the first shaft sleeve, the second shaft sleeve being an insulation shaft sleeve.

29. The cooking appliance according to any one of claims 25 to 28, wherein:

the microwave housing is located above the cooking cavity;

a first microwave passing opening is formed between the waveguide cavity and the accommodation space;

a second microwave passing opening is formed between the accommodation space and the cooking cavity;

a first transparent isolation member is provided at the first microwave passing opening; and

a second transparent isolation member is provided at the second microwave passing opening.

30. The cooking appliance according to any one of claims 24 to 29, wherein the door body assembly comprises:

a panel adapted to cover the access opening; and

a protrusion disposed at a side of the panel facing towards the machine body and extending into the cooking cavity, the protrusion being provided with a wave suppression structure.

31. The cooking appliance according to claim 30, wherein the panel is provided with an outer glass layer, an intermediate glass layer, and an inner glass layer.

32. The cooking appliance according to any one of claims 24 to 31, further comprising an outer casing having an accommodation cavity, the machine body being engaged within the accommodation cavity.

33. The cooking appliance according to any one of claims 24 to 32, wherein:

the access opening is located at a front side of the machine body; and

the machine body is provided with a control board, the control board being disposed at the front side of the machine body and located above the access opening.