Claims

1. An electronic device comprising:

a first board comprising one or more holes;

an antenna module comprising one or more antenna elements, and

a wireless communication circuit configured to transmit and/or receive a wireless signal via the one or more antenna elements,

wherein at least a part of the antenna module is at least partially disposed in the one or more holes,

wherein the wireless communication circuit is disposed to at least partially overlap the first board when the first board is viewed from above,

wherein the wireless communication circuit is electrically and/or physically coupled to the first board and the antenna module.

2. The electronic device of claim 1, further comprising a housing, wherein the first board is disposed in an internal space of the housing.

3. The electronic device of claim 1, wherein the first board is a main board.

4. The electronic device of claim 1, wherein the first board comprises a first surface and a second surface facing in an opposite direction to the first surface, and

wherein the wireless communication circuit is disposed on the second surface of the first board.

5. The electronic device of claim 4, wherein the antenna module further comprises a second board including the one or more antenna elements,

wherein the second board is at least partially disposed in the one or more holes, and

wherein the second board protrudes from the first surface of the first board.

6. The electronic device of claim 5, wherein the second board and the wireless communication circuit are electrically and/or physically coupled to each other through a conductive bond.

7. The electronic device of claim 5, wherein the wireless communication circuit is connected to the first board, and

wherein the second board is connected to the wireless communication circuit.

8. The electronic device of claim 5, further comprising:

at least one matching circuit disposed between the second board and the wireless communication circuit and electrically connected to the one or more antenna elements.

9. The electronic device of claim 8, wherein the matching circuit comprises one or more conductive patterns disposed on the second board and/or the wireless communication circuit.

10. The electronic device of claim 9, wherein the one or more conductive patterns disposed on the second board and/or the wireless communication circuit are disposed to not overlap each other when the first surface of the first board is viewed in a direction opposite the first direction.

11. The electronic device of claim 1, wherein the first board comprises at least one circuit, and

wherein the wireless communication circuit is electrically connected to the at least one circuit via the first board.

12. The electronic device of claim 11, wherein the at least one circuit comprises a communication processor and/or a power management circuit.

13. The electronic device of claim 1, further comprising:

an interposer disposed between the first board and the wireless communication circuit, and

wherein the wireless communication circuit is electrically connected to the first board via the interposer.

14. The electronic device of claim 4, wherein the antenna module further comprises a second board including the one or more antenna elements,

wherein the second board is at least partially disposed in the one or more holes, and

a surface of the second board is disposed so as to be coplanar with the first surface of the first board.

15. The electronic device of claim 4, wherein the antenna module further comprises a second board including the one or more antenna elements,

wherein the second board is at least partially disposed in the one or more holes, and

a surface of the second board is disposed so as to be lower than the first surface of the first board.