

CLAIMS

What is claimed is:

- 5 1. An electronic device (100), comprising:
a display screen (21) having a straight portion (211) and a curved portion extending from a side of the straight portion (211);
a sensor component (50) arranged opposite to the display screen (21) and having a position corresponding to the curved portion of the display screen (21); and
10 a light shield layer (22) arranged at a side of the display screen (21) facing the sensor component (50).
2. The electronic device (100) according to claim 1, wherein the sensor component (50) comprises a signal emitter (52) and a signal receiver (51) communicated with the signal emitter (52).
- 15 3. The electronic device (100) according to claim 2, wherein the curved portion of the display screen (21) comprises a first curved portion (212) and a second curved portion (213), the signal emitter (52) has a position corresponding to the second curved portion (213) and the signal receiver (51) has a position corresponding to the first curved portion (212).
4. The electronic device (100) according to claim 2 or 3, wherein the light shield layer (22)
20 has a first opening (221) and a second opening (222), the first opening (221) corresponds to the signal emitter (52), and the second opening (222) corresponds to the signal receiver (51).
5. The electronic device (100) according to claim 4, wherein the display screen (21) comprise a display area (215) configured to display information, and the first opening (221) and the second opening (222) of the light shield layer (22) are arranged at the display area (215).
- 25 6. The electronic device (100) according to any one of claims 2-5, wherein the signal emitter (52) and the signal receiver (51) are packaged into a first chip.
7. The electronic device (100) according to any one of claims 2-5, wherein the sensor component (50) further comprises an ambient-light sensor (53) configured to detect an ambient-light intensity.
- 30 8. The electronic device (100) according to claim 7, wherein the signal emitter (52), the signal receiver (51) and the ambient-light sensor (53) are packaged into a second chip.
9. The electronic device (100) according to claim 4 or 5, wherein the first opening (221) and

the second opening (222) each are a round hole and have a diameter of 2-6 millimeters.

10. The electronic device (100) according to claim 2 or 3, wherein the light shield layer (22) comprises:

5 a first light shield layer (223) coupled to a side of the display screen (21) facing the sensor component (50); and

a second light shield layer (224) coupled to a side of the first light shield layer (223) facing the sensor component (50),

10 wherein the second light shield layer (224) has a first opening (221) and a second opening (222), the first opening (221) corresponds to the signal emitter (52), the second opening (222) corresponds to the signal receiver (51), and the first light shield layer (223) covers the first opening (221) and the second opening (222) of the second light shield layer (224).

11. The electronic device (100) according to claim 10, wherein the first light shield layer (223) is a white ink layer, and the second light shield layer (224) is a black ink layer.

15 12. The electronic device (100) according to claim 10 or 11, wherein a transmissivity of the first light shield layer (223) is larger than that of the second light shield layer (224).

13. The electronic device (100) according to any one of claims 1-3, wherein the light shield layer (22) is arranged opposite to the straight portion (211) of the display screen (21) without blocking the curved portion of the display screen (21).

20 14. The electronic device (100) according to claim 2, wherein the curved portion of the display screen (21) comprises a first curved portion (212) and a second curved portion (213), both the signal emitter (52) and the signal receiver (51) are arranged opposite to the first curved portion (212) or the second curved portion (213).

15. The electronic device (100) according to claim 14, wherein a distance between the signal emitter (52) and the signal receiver (51) ranges from 2mm to 14mm.

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