

CLAIMS

What is claimed is:

- 5 1. A display screen (20) for an electronic device (100), comprising:
 a functional area (203) configured to achieve a function of the electronic device (100) and comprising a plurality of pixel points (21), the plurality of pixel points defining a gap area (22) therebetween; and
 a signal emitter (23) received in the gap area (22).
- 10 2. The display screen (20) according to claim 1, further comprising a switch (26) coupled to the signal emitter (23) and at least one of the plurality of pixel points (21),
 wherein the switch (26) is configured to turn on the signal emitter (23) and turn off the at least one of the plurality of pixel points (21) when receiving a first drive signal, and the switch (26) is further configured to turn on the at least one of the plurality of pixel points (21) and turn off the signal emitter (23) when receiving a second drive signal.
- 15 3. The display screen (20) according to claim 2, wherein the plurality of pixel points (21) comprises a first group (211) of pixel points and a second group (212) of pixel points, and the first group (211) of pixel points are spaced apart from the second group (212) of pixel points;
 the switch (26) is coupled to the signal emitter (23) and the first group (211) of pixel points.
- 20 4. The display screen (20) according to claim 3, wherein the first group (211) of pixel points alternate with the second group (212) of pixel points.
5. The display screen (20) according to any one of claims 1-4, further comprising a display area (201), the display area (201) is configured to display information, and the functional area (203) is arranged within the display area (201).
- 25 6. The display screen (20) according to claim 5, wherein the display area (201) comprises a plurality of pixel points (21), and a density of the pixel points (21) in the display area (201) is larger than a density of the pixel points (21) in the functional area (203).
7. The display screen (20) according to claim 5 or 6, wherein the functional area (203) has a minimum distance less than 10 millimeters from an edge of the display area (201).
- 30 8. The display screen (20) according to claim 7, wherein the display area (201) has a first edge (M1) and a second edge (M2), and the first edge (M1) is perpendicular to the second edge (M2);
 a minimum distance from the functional area (203) to the first edge (M1) and another minimum distance from the functional area (203) to the second edge (M2) both are less than 10 millimeters.
- 35 9. The display screen (20) according to any one of claims 1-8, wherein the gap area (22) is further provided with a signal receiver (24) therein, the signal receiver (24) is spaced apart from the signal emitter (23), the signal emitter (23) is configured to emit a detecting signal and the signal receiver (24) is configured to receive a reflected signal generated by the detecting signal being reflected by an external object.
10. The display screen (20) according claim 9, wherein the signal emitter (23) and the signal receiver (24) are arranged at two opposite sides of one of the plurality of pixel points (21).
- 40 11. The display screen (20) according claim 9, wherein the signal emitter (23) and the signal receiver (24) are arranged in a line, and no pixel point (21) is arranged between the signal emitter (23) and the signal receiver (24).
12. The display screen (20) according to any one of claims 9-11, wherein the gap area (22) is further

provided with an ambient-light sensor (27) therein, the ambient-light sensor (27) is spaced apart from the signal emitter (23) and the signal receiver (24), and the ambient-light sensor (27) is configured to detect an ambient light intensity.

5 13. The display screen according claim 12, wherein the signal emitter (23), the signal receiver (24) and the ambient-light sensor (27) are packaged into a chip.

14. An electronic device (100), comprising:

a housing (40); and

a display screen being coupled to the housing (40), and the display screen being configured as a display screen (20) according to any one of claims 1-13.

10 15. The electronic device (100) according to claim 14, further comprising a circuit board (30), the circuit board (30) being received in the housing (40), being electrically coupled to the display screen (20), and being configured to control the signal emitter (23) to emit a detecting signal.

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