or the like.

The display screen component 20 is coupled to the housing 40 to provide a display surface of the electronic device 100. The display screen component 20 serves as a front cover of the electronic device 100 to define an enclosed space together with the housing 40, for receiving other electronic elements of the electronic device 100 therein. Also, the display screen component 20 serves as the display surface of the electronic device 100 for displaying information such as images, texts or the like.

The circuit board 30 is arranged in the housing 40, such that the circuit board 30 is received in the above enclosed space. The circuit board 30 may be a mainboard of the electronic device 100. The circuit board 30 has a ground point for grounding of the circuit board 30. The circuit board 30 may be integrated with functional components such as a camera, a processor or the like. Also, the display screen component 20 may be electronically coupled to the circuit board 30.

In some embodiments, the circuit board 30 has a display control circuit. The display control circuit outputs an electrical signal to the display screen component 20, so as to control the display screen component 20 to display information.

The housing 40 provides an external outline of the electronic device 100. The housing 40 may be made of plastics or metal. The housing 40 may be integrally molded.

In some embodiments of the present disclosure, the display screen component includes a display screen and a sensor unit arranged at a side of the display screen. The display screen includes a display area and a non-display area. The sensor unit includes a signal emitter and a signal receiver, the signal emitter is arranged at a side of the non-display area, and the signal receiver is arranged at a side of the display area. The non-display area includes a functional portion, the signal emitter is configured to emit a detecting signal to outside through the functional portion, and the signal receiver is configured to receive a reflected signal from the outside through the display screen, in which the detecting signal is changed into the reflected signal after being reflected by an external object.

In some embodiments, as illustrated in Fig. 3, the display screen component 20 includes a display screen 21 and a sensor unit 22. The sensor unit 22 is arranged at a side of the display screen 21.

It may be understood that the sensor unit 22 is arranged at an inner side of the display

What is claimed is:

1. A display screen component for an electronic device, comprising:

a display screen comprising a display area and a non-display area; and

a sensor unit disposed at a side of the display screen, and comprising a signal emitter and a signal receiver, the signal emitter being arranged at a side of the non-display area, and the signal receiver being arranged at a side of the display area,

wherein the non-display area comprises a functional portion configured to achieve a function of the electronic device, the signal emitter is configured to emit a detecting signal to outside through the functional portion, and the signal receiver is configured to receive a reflected signal from the outside through the display screen, in which the detecting signal is changed into the reflected signal after being reflected by an external object,

wherein the functional portion defines an opening therein, and the signal emitter is configured to emit the detecting signal to outside through the opening,

wherein the display screen component further comprises a functional unit, and the functional unit shares the opening with the signal emitter,

wherein the non-display area defines a notch at an edge thereof, and the opening is configured as the notch enclosed by a housing of the electronic device,

wherein both centers of the functional unit and the signal emitter are arranged in a horizontal direction.

2. The display screen component according to claim 1, wherein the signal emitter has a signal-emission surface facing the functional portion.

3. The display screen component according to claim 1 or 2, wherein the functional unit comprises at least one of a camera and a telephone receiver.

4. The display screen component according to any one of claims 1-3, wherein the opening is a round hole and has a diameter of 2-4 millimeters.

5. The display screen component according to any one of claims 1-4, wherein a distance between the signal emitter and the signal receiver is in a range of 2-14 millimeters.

6. The display screen component according to any one of claims 1-5, wherein the display screen is provided with a light shield layer at a side thereof facing the sensor unit, and the light

shield layer defines a signal receiving hole therein;

the signal receiver is configured to receive the reflected signal through the display screen and the signal receiving hole.

7. The display screen component according to any one of claims 1-6, wherein the sensor unit further comprises an ambient-light sensor disposed at the side of the display area, and the ambient-light sensor is configured to sense an external ambient light signal.

8. The display screen component according to claim 7, wherein the ambient-light sensor has a light sensing surface facing the display area of the display screen.

9. The display screen component according to claim 7 or 8, wherein the signal receiver and the ambient-light sensor are packaged into a chip.

10. The display screen component according to any one of claims 1-9, wherein the signal emitter is an infrared emitter configured to emit an infrared light, and the signal receiver is an infrared receiver configured to receive the infrared light.

11. The display screen component according to any one of claims 1-10, wherein the display screen is a liquid crystal display or an organic light-emitting diode display.

12. An electronic device, comprising:

a housing;

a display screen component according to any one of claims 1-11, the display screen component being coupled to the housing; and

a cover plate coupled to the display screen component and configured to cover the display screen component.

13. The electronic device according to claim 12, wherein the cover plate is configured as a glass cover plate.

14. The electronic device according to claim 12 or 13, further comprising a circuit board received in the housing and coupled to the display screen component.

15. The electronic device according to claim 14, wherein the circuit board is configured as a mainboard of the electronic device, and has a ground point for grounding of the circuit board.

16. The electronic device according to claim 14, wherein the circuit board is configured to output an electrical signal to the display screen component to control the display screen component to display information.