WHAT IS CLAIMED IS:

1. A pixel circuit, comprising:

a driving transistor having a gate terminal for receiving a data signal;

an emission control transistor coupled between a first terminal of the driving transistor and a first system voltage terminal;

a first light-emitting element coupled between a second terminal of the driving transistor and a second system voltage terminal to emit light with a first color;

a first transistor coupled between the second terminal of the driving transistor and the second system voltage terminal and coupled to the first light-emitting element to drive the first light-emitting element;

a second light-emitting element coupled between the second terminal of the driving transistor and a third system voltage terminal to emit light with a second color different from the first color; and

a second transistor coupled between the second terminal of the driving transistor and the third system voltage terminal and coupled to the second light-emitting element to drive the second light-emitting element;

wherein a gate terminal of the emission control transistor receives an emission control signal, wherein a gate terminal of the first transistor and a gate terminal of the second transistor receive the same signal, which is the emission control signal, however, the first light-emitting element and the second light-emitting element do not emit light simultaneously;

wherein the first light-emitting element is controlled according to the emission control signal and a voltage level of the second system voltage terminal, wherein the second light-emitting element is controlled according to the emission control signal

and a voltage level of the third system voltage terminal; and

wherein when the first light-emitting element or the second light-emitting element emits light, the voltage level of the second system voltage terminal is different from the voltage level of the third system voltage terminal.

2. The pixel circuit of claim 1,

wherein the first transistor is controlled according to the emission control signal and the voltage level of the second system voltage terminal, wherein the second transistor is controlled according to the emission control signal and the voltage level of the third system voltage terminal.

3. The pixel circuit of claim 1, wherein the first system voltage terminal receives a system high voltage, wherein a cathode of the first light-emitting element is coupled to the second system voltage terminal and an anode of the first light-emitting element is coupled to the second terminal of the driving transistor, wherein a cathode of the second light-emitting element is coupled to the third system voltage terminal and an anode of the second light-emitting element is coupled to the second terminal of the driving transistor.

4. The pixel circuit of claim 3,

wherein when the first light-emitting element emits light and the second light-emitting element does not emit light, the second system voltage terminal has a low voltage level and the third system voltage terminal has a high voltage level; and

wherein when the first light-emitting element does not emit light and the second light-emitting element emits light, the second system voltage terminal has the high

voltage level and the third system voltage terminal has the low voltage level.

5. The pixel circuit of claim 1, wherein the first system voltage terminal receives a system low voltage, wherein an anode of the first light-emitting element is coupled to the second system voltage terminal and a cathode of the first light-emitting element is coupled to the second terminal of the driving transistor, wherein an anode of the second light-emitting element is coupled to the third system voltage terminal and a cathode of the second light-emitting element is coupled to the second terminal of the driving transistor.

6. The pixel circuit of claim 5,

wherein when the first light-emitting element emits light and the second light-emitting element does not emit light, the second system voltage terminal has a high voltage level and the third system voltage terminal has a low voltage level; and

wherein when the first light-emitting element does not emit light and the second light-emitting element emits light, the second system voltage terminal has the low voltage level and the third system voltage terminal has the high voltage level.

7. The pixel circuit of claim 1, further comprising:

a third light-emitting element coupled between the second terminal of the driving transistor and a fourth system voltage terminal to emit light with a third color different from the first color and the second color;

wherein the third light-emitting element is controlled according to the emission control signal and a voltage level of the fourth system voltage terminal; and

wherein during an emission period of the pixel circuit, a voltage level of one of

the second system voltage terminal, the third system voltage terminal and the fourth system voltage terminal is different from voltage levels of the other two of the second system voltage terminal, the third system voltage terminal and the fourth system voltage terminal.

8. The pixel circuit of claim 7, further comprising:

a third transistor coupled between the second terminal of the driving transistor and the fourth system voltage terminal and coupled to the third light-emitting element to drive the third light-emitting element;

wherein a gate terminal of the third transistor receives the emission control signal; and

wherein the third transistor is controlled according to the emission control signal and the voltage level of the fourth system voltage terminal.

9. The pixel circuit of claim 7, wherein the first system voltage terminal receives a system high voltage, wherein during the emission period of the pixel circuit, one of the second system voltage terminal, the third system voltage terminal and the fourth system voltage terminal has a low voltage level, and the other two of the second system voltage terminal, the third system voltage terminal and the fourth system voltage terminal have high voltage levels.

10. The pixel circuit of claim 7, wherein the first system voltage terminal receives a system low voltage, wherein during the emission period of the pixel circuit, one of the second system voltage terminal, the third system voltage terminal and the fourth system voltage terminal has a high voltage level, and the other two of the second

system voltage terminal, the third system voltage terminal and the fourth system voltage terminal have low voltage levels.

11. The pixel circuit of claim 1, further comprising:

a first writing transistor having a first terminal to receive the data signal, a second terminal coupled to the gate terminal of the driving transistor, and a gate terminal to receive a first scanning signal; and

wherein during a writing period of the pixel circuit, the first writing transistor is turned on according to the first scanning signal, thereby transmitting the data signal to the gate terminal of the driving transistor.

12. The pixel circuit of claim 11, further comprising:

a second writing transistor having a first terminal to receive an initial voltage and a second terminal coupled to the first terminal or the second terminal of the driving transistor; and

a first capacitor coupled between the second terminal of the first writing transistor and the second terminal of the second writing transistor;

wherein during the writing period of the pixel circuit, the second writing transistor transmits the initial voltage to the first terminal or the second terminal of the driving transistor.

13. The pixel circuit of claim 12, further comprising:

a compensation circuit coupled between the gate terminal of the driving transistor and the second terminal of the first writing transistor, wherein the compensation circuit compensates a threshold voltage of the driving transistor through

the first capacitor.

14. The pixel circuit of claim 13, wherein the compensation circuit comprises:

a second capacitor coupled between the gate terminal of the driving transistor and the second terminal of the first writing transistor;

a fourth transistor having a first terminal coupled to the gate terminal of the driving transistor, a second terminal for receiving a first reference voltage, and a gate terminal for receiving a second scanning signal;

a fifth transistor having a first terminal coupled to the second terminal of the first writing transistor, a second terminal for receiving the first reference voltage, and a gate terminal for receiving the second scanning signal;

a sixth transistor having a first terminal coupled to the second terminal of the first writing transistor, a second terminal for receiving the first reference voltage, and a gate terminal for receiving a third scanning signal; and

a seventh transistor having a first terminal coupled to the gate terminal of the driving transistor and a gate terminal for receiving the third scanning signal.

15. A driving method of a pixel circuit, wherein the pixel circuit comprises a driving transistor, an emission control transistor, a first light-emitting element, a first transistor, a second light-emitting element, and a second transistor, wherein the driving method comprises:

providing a data signal to a gate terminal of the driving transistor;

providing an emission control signal to a gate terminal of the emission control transistor, wherein the emission control transistor is coupled between a first terminal of the driving transistor and a first system voltage terminal, wherein the first light-

emitting element is coupled between a second terminal of the driving transistor and a second system voltage terminal to emit light with a first color, wherein the second light-emitting element is coupled between the second terminal of the driving transistor and a third system voltage terminal to emit light with a second color different from the first color; and

controlling the emission control signal and voltage levels of the second system voltage terminal and the third system voltage terminal, thereby causing the first light-emitting element or the second light-emitting element to emit light, wherein the first transistor is coupled between the second terminal of the driving transistor and the second system voltage terminal and coupled to the first light-emitting element to drive the first light-emitting element, wherein the second transistor is coupled between the second terminal of the driving transistor and the third system voltage terminal and coupled to the second light-emitting element to drive the second light-emitting element, wherein a gate terminal of the first transistor and a gate terminal of the second transistor receive the same signal, which is the emission control signal, however, the first light-emitting element and the second light-emitting element do not emit light simultaneously;

wherein when the first light-emitting element or the second light-emitting element emits light, the voltage levels of the second system voltage terminal and the third system voltage terminal are different.

16. The driving method of claim 15, further comprising:

providing a low voltage level to the second system voltage terminal coupled to a cathode of the first light-emitting element and providing a high voltage level to the third system voltage terminal coupled to a cathode of the second light-emitting element,

thereby causing the first light-emitting element to emit light and causing the second light-emitting element not to emit light; and

providing the high voltage level to the second system voltage terminal and providing the low voltage level to the third system voltage terminal, thereby causing the first light-emitting element not to emit light and causing the second light-emitting element to emit light.

17. The driving method of claim 15, further comprising:

providing a high voltage level to the second system voltage terminal coupled to an anode of the first light-emitting element and providing a low voltage level to the third system voltage terminal coupled to an anode of the second light-emitting element, thereby causing the first light-emitting element to emit light and causing the second light-emitting element not to emit light; and

providing the low voltage level to the second system voltage terminal and providing the high voltage level to the third system voltage terminal, thereby causing the first light-emitting element not to emit light and causing the second light-emitting element to emit light.

18. The driving method of claim 15, wherein the pixel circuit further comprises a third light-emitting element coupled between the second terminal of the driving transistor and a fourth system voltage terminal to emit light with a third color different from the first color and the second color, wherein the driving method further comprises:

controlling the emission control signal and voltage levels of the second system voltage terminal, the third system voltage terminal and the fourth system voltage terminal, thereby causing the first light-emitting element, the second light-emitting

element or the third light-emitting element to emit light;

wherein during an emission period of the pixel circuit, a voltage level of one of the second system voltage terminal, the third system voltage terminal and the fourth system voltage terminal is different from voltage levels of the other two of the second system voltage terminal, the third system voltage terminal and the fourth system voltage terminal.

19. The driving method of claim 18, further comprising:

providing a low voltage level to the second system voltage terminal coupled to a cathode of the first light-emitting element and providing a high voltage level to the third system voltage terminal coupled to a cathode of the second light-emitting element and providing the high voltage level to the fourth system voltage terminal coupled to a cathode of the third light-emitting element, thereby causing the first light-emitting element to emit light and causing the second light-emitting element and the third light-emitting element not to emit light;

providing the low voltage level to the third system voltage terminal and providing the high voltage level to the second system voltage terminal and the fourth system voltage terminal, thereby causing the second light-emitting element to emit light and causing the first light-emitting element and the third light-emitting element not to emit light; and

providing the low voltage level to the fourth system voltage terminal and providing the high voltage level to the second system voltage terminal and the third system voltage terminal, thereby causing the third light-emitting element to emit light and causing the first light-emitting element and the second light-emitting element not to emit light.

20. The driving method of claim 18, further comprising:

providing a high voltage level to the second system voltage terminal coupled to an anode of the first light-emitting element and providing a low voltage level to the third system voltage terminal coupled to an anode of the second light-emitting element and providing the low voltage level to the fourth system voltage terminal coupled to an anode of the third light-emitting element, thereby causing the first light-emitting element to emit light and causing the second light-emitting element and the third light-emitting element not to emit light;

providing the high voltage level to the third system voltage terminal and providing the low voltage level to the second system voltage terminal and the fourth system voltage terminal, thereby causing the second light-emitting element to emit light and causing the first light-emitting element and the third light-emitting element not to emit light; and

providing the high voltage level to the fourth system voltage terminal and providing the low voltage level to the second system voltage terminal and the third system voltage terminal, thereby causing the third light-emitting element to emit light and causing the first light-emitting element and the second light-emitting element not to emit light.