

[0068] FIG. 5 is an equivalent circuit diagram showing a part of a display according to the second embodiment of the present invention. The display is a bottom emission organic EL display employing an active matrix driving method. The organic EL display has a structure similar to that of the organic EL display shown in FIGS. 1 to 3 except that the following configuration is employed.

[0069] In this display, the switch SW_{vs} and the control line CL are built into the display panel DP instead of the video signal line driver XDR. Further, in this display, the display panel DP further includes a level shifter LS. The switch SW_{vs} and the constant-voltage source VS are connected in series between the video signal line DL and the ground wire in this order. An input terminal of the level shifter LS is connected to the control line CL. An output terminal of the level shifter LS is connected to the gate of the switch SW_{vs} .

[0070] This display can be driven in a manner almost similar to that described with reference to FIG. 4. Consequently, the present embodiment exerts effects similar to those described in the first embodiment.

[0071] In the first and second embodiments, the structures shown in FIGS. 1, 3, and 5 are adopted for the pixels PX. However, other structures can be used for the pixels PX. For example, the diode-connecting switch SW_c may be connected between the gate of the drive control element DR and the video signal line DL rather than being connected between the drain and gate of the drive control element DR. Alternatively, the selector switch SW_b may be connected between the gate of the drive control element DR and the video signal line DL rather than being connected between the drain of the drive control element DR and the video signal line DL.

[0072] Additional advantages and modifications will readily occur to those skilled in the art. Therefore, the invention in its broader aspects is not limited to the specific details and representative embodiments shown and described herein. Accordingly, various modifications may be made without departing from the spirit or scope of the general inventive concept as defined by the appended claims and their equivalents.

What is claimed is:

1. A display comprising:
 - a video signal line;
 - a current source which outputs a video signal;
 - a voltage source which outputs a reset signal; and
 - pixels which are arranged along the video signal line, each of the pixels including a drive circuit which outputs a drive current at a magnitude corresponding to a magnitude of a video signal, and a display element which changes its optical characteristics in accordance with a magnitude of a current flow through the display element,

wherein the display is configured to alternately repeat an active scanning period and a blanking period, sequentially select the pixels during the active scanning period, execute a write operation on the selected pixel, execute a display operation on each of the non-selected pixels, and execute a reset operation during the blanking period,

wherein the write operation includes connecting the drive circuit to the current source via the video signal line to write the video signal on the drive circuit while disconnecting the display element from the drive circuit,

wherein the display operation includes connecting the drive circuit to the display element to make the drive current flow through the display element while disconnecting the drive circuit from the video signal line, and

wherein the reset operation includes connecting the voltage source to the video signal line to write the reset signal on the video signal line while disconnecting the current source from the video signal line.

2. The display according to claim 1, wherein a magnitude of the reset signal is set at a voltage within a voltage range of the video signal line that the write operation can set.
3. The display according to claim 1, wherein a magnitude of the reset signal is set at a voltage of the video signal line to be set by the write operation when the video signal corresponds to the lowest gray level.
4. The display according to claim 1, further comprising a protection circuit including a first diode which is connected between the video signal line and a high-potential terminal such that a forward current flows through the first diode from the video signal line to the high-potential terminal, and a second diode which is connected between the video signal line and a low-potential terminal such that a forward current flows through the second diode from the low-potential terminal to the video signal line.
5. The display according to claim 1, wherein the drive circuit includes:
 - a drive control element which comprises a control terminal, a first terminal connected to a power supply terminal, and a second terminal outputting a current at a magnitude corresponding to a voltage between the control terminal and the first terminal;
 - a capacitor which is connected between a constant-potential terminal and the control terminal; and
 - a switch group which switches between first and second states, the first state being a state that the second terminal, the control terminal, and the video signal line are connected to one another, and the second state being a state that the second terminal, the control terminal, and the video signal line are disconnected from one another.
6. The display according to claim 1, wherein the display element is an organic EL element.

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