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(54) **LIQUID CRYSTAL DISPLAY AND DRIVING METHOD THEREOF**

(52) **U.S. Cl. 345/87**

(76) **Inventor: Seung-Woo Lee, Seoul (KR)**

(57) **ABSTRACT**

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A dual input mode liquid crystal display having high resolution and employing dynamic capacitance compensation ("DCC") is provided. The liquid crystal display includes a timing controller including a DCC processing unit for applying dynamic capacitance compensation ("DCC") to a part of the pixels, a timing redistribution block for converting a format of the DCC-applied data to a predetermined format for a source driver, and a control signal generating block for generating a control signal for displaying an image. Since the DCC processing unit uses only two frame memories, the DCC may be employed by a dual input mode LCD. In addition, since a clock frequency for data processing in the frame memory of the timing controller is preferably the same as the clock frequency in the timing controller of the dual input mode LCD, thereby preventing the increase of EMI.

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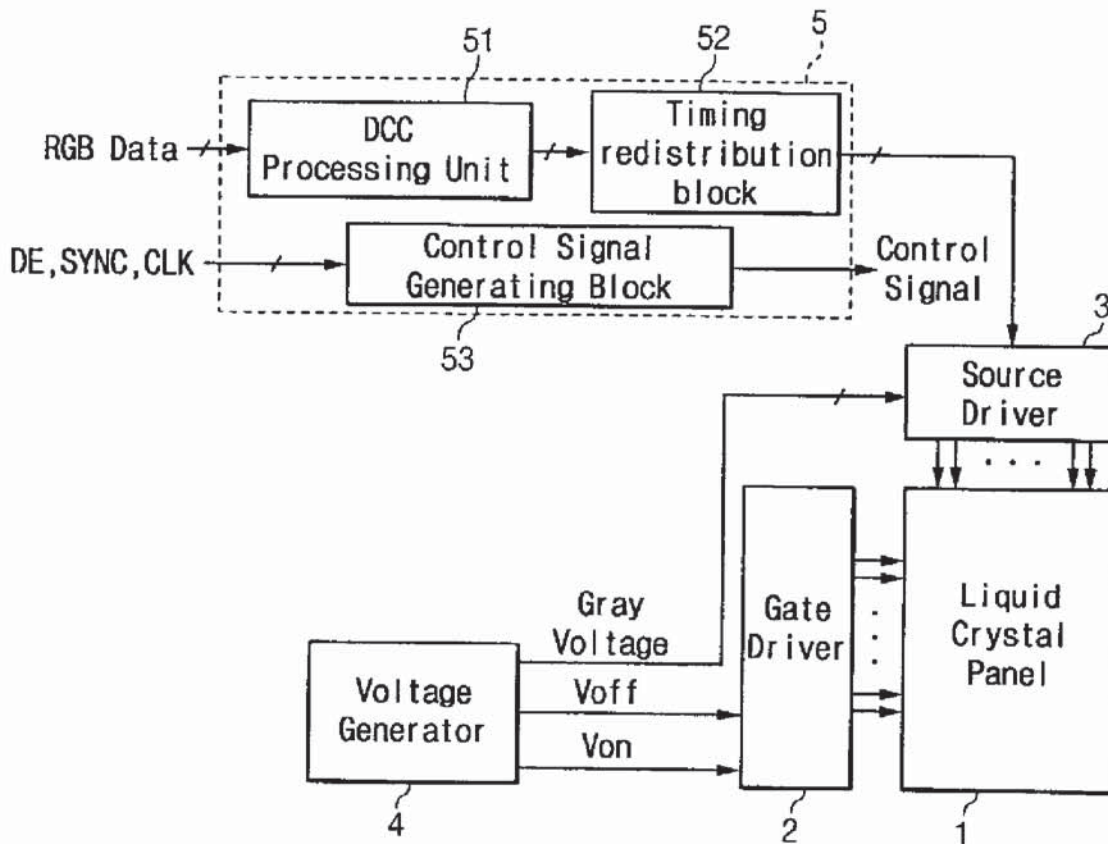


Fig. 1

(Prior Art)

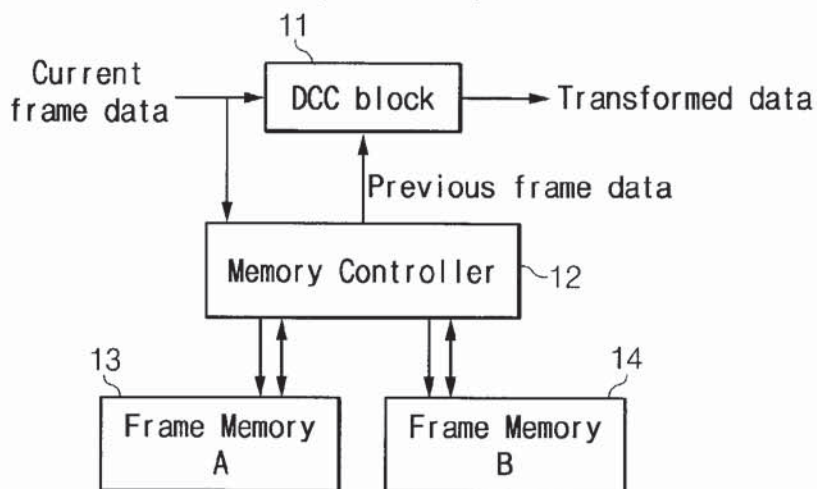


Fig. 2

(Prior Art)

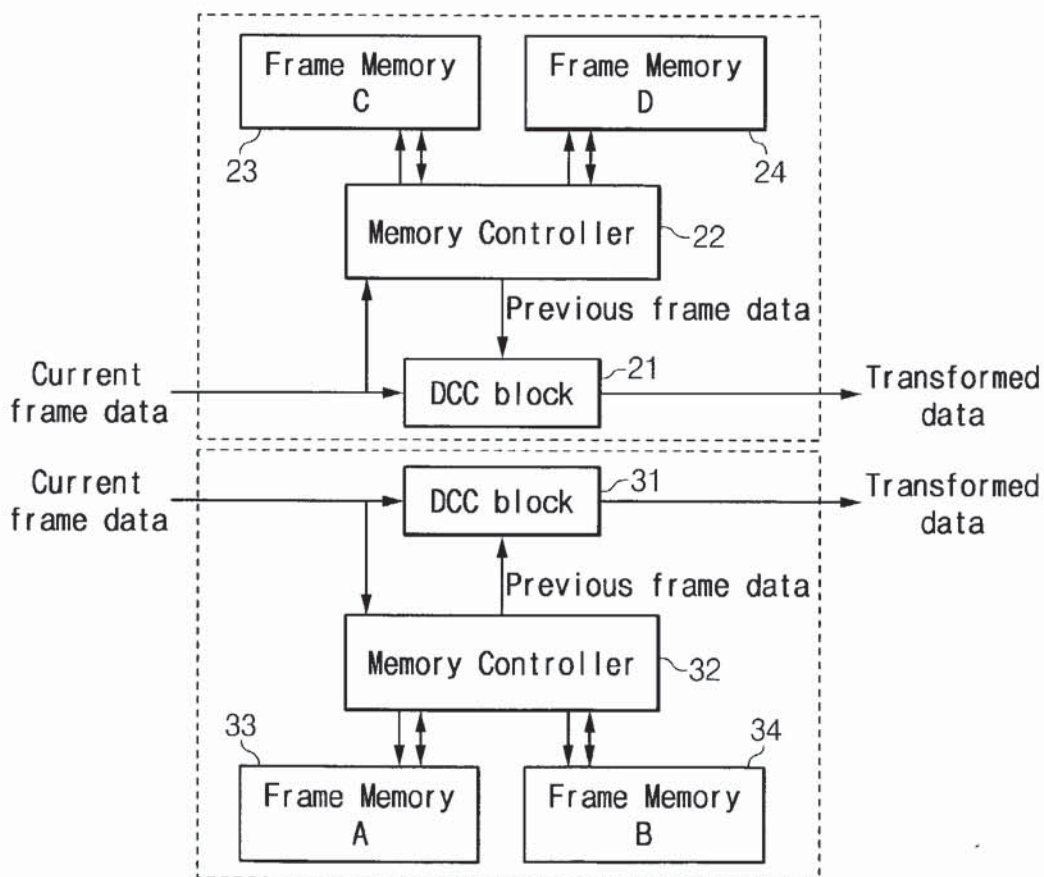


Fig. 3

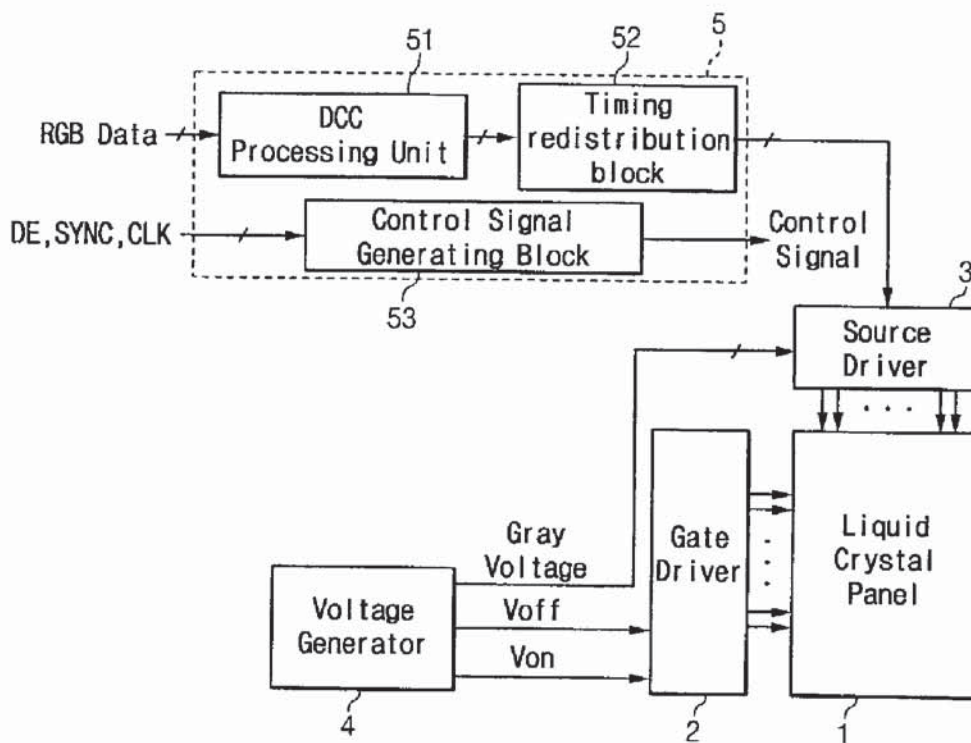


Fig. 4

DCC applied pixel
 DCC not applied pixel

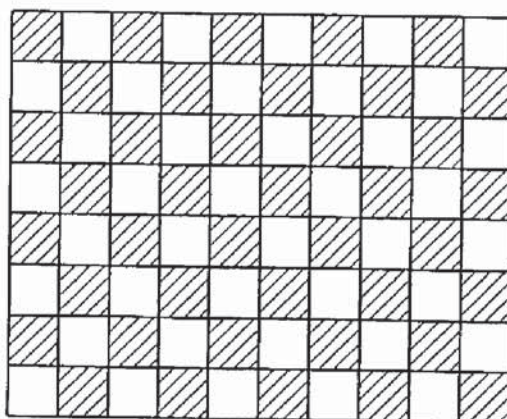


Fig. 5

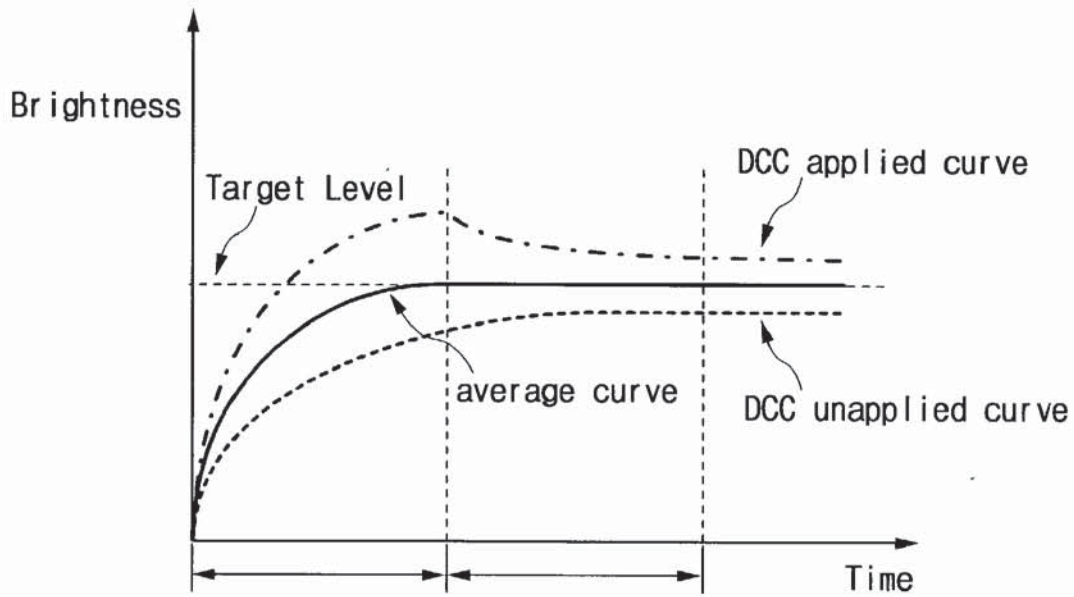


Fig. 6

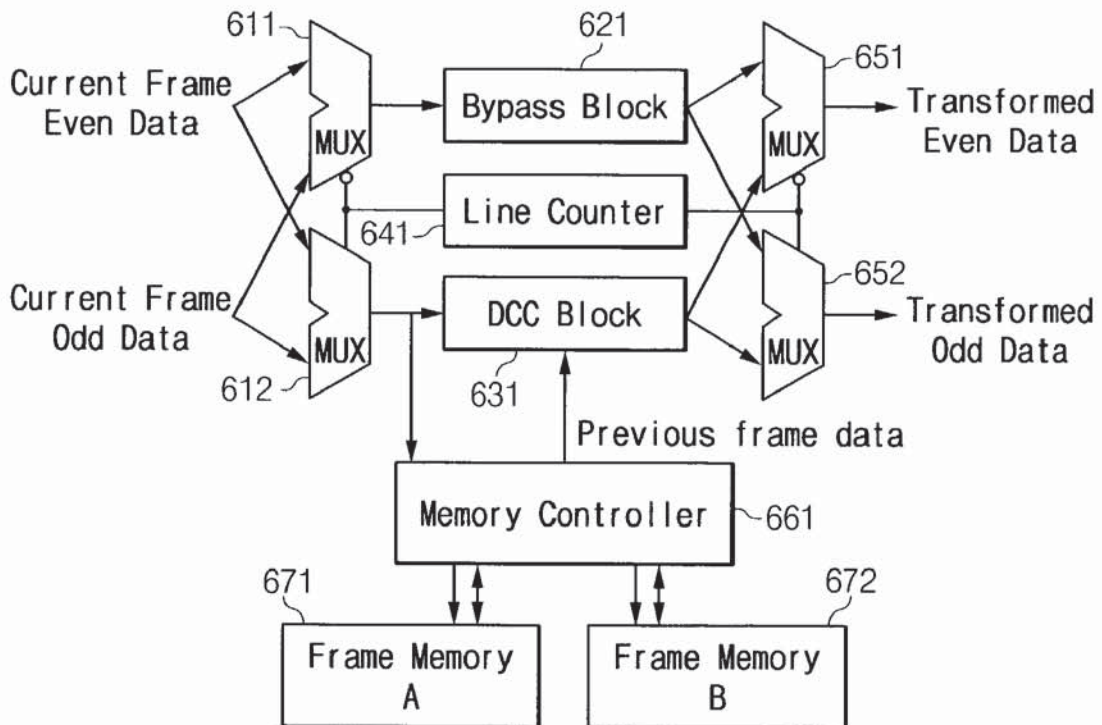


Fig. 7A

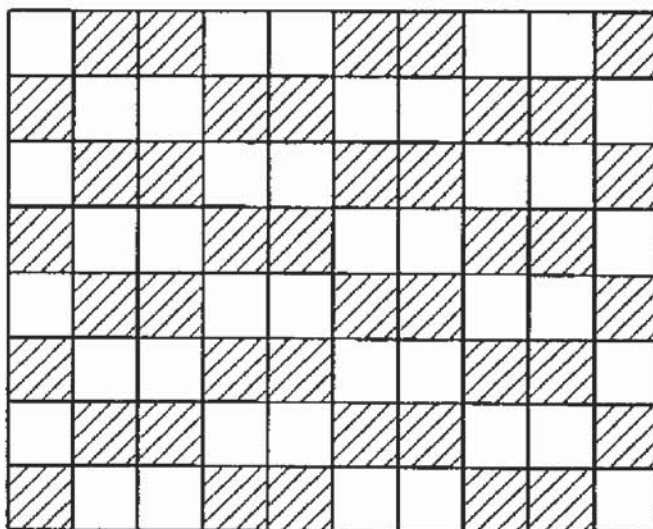
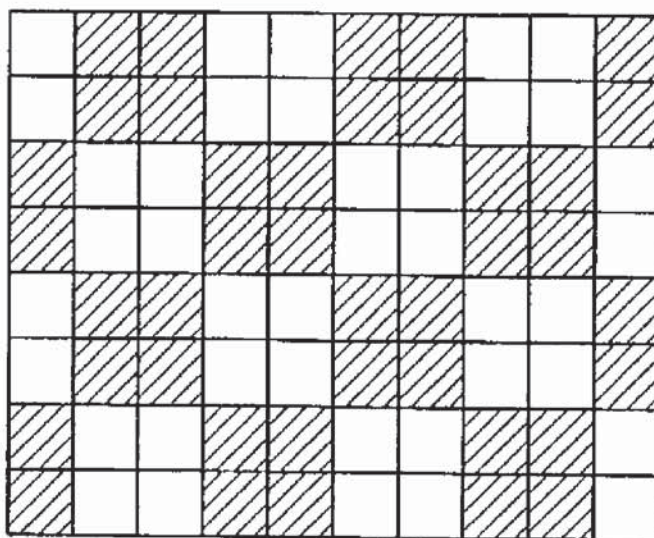


Fig. 7B



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