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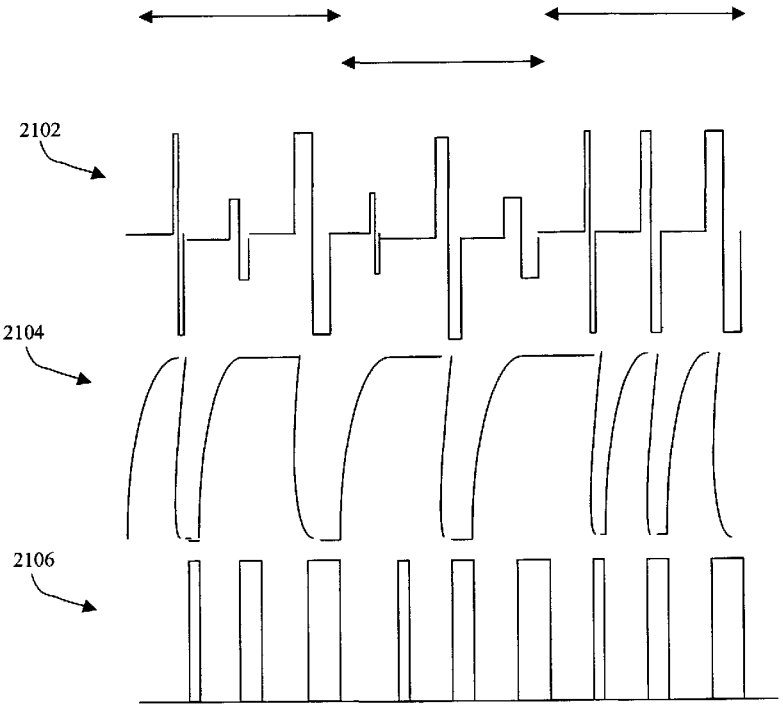
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(54) Title: BALANCED BINARY COLOR DRIVE METHOD AND DIGITALLY CONTROLLED WAVEFORM DRIVE METHODS FOR GRAPHICAL DISPLAYS AND SYSTEM IMPLEMENTING SAME



(57) Abstract: An image generation system is provided. A display matrix is provided and has a plurality of display elements which can include liquid crystal. Each display element includes a pixel. A plurality of display circuits are electrically connected to a display element. A plurality of memory cells are associated with each of the circuits, or form part of the circuit, and a selector continuously electrically connected to more than one of the plurality of memory cells, the selector outputting to the pixel data from one memory cell at a time. Peripheral control circuits preferably control read and write operations to the memory cells. Also provided is a light emitting mechanism, which may be a mechanism provided at each pixel, a light modulating mechanism provided at each pixel, and/or an illumination source for illuminating the pixels. Logic suppresses image flicker utilizing balanced binary color. A method for generating an image is also provided. A display element of a display is switched to zero volts for a first time duration. A first voltage is supplied to an electrode of the display element for a second period of time. A second voltage is supplied to a counterelectrode of the display element for a third period of time such that no net voltage is applied to the display element. An illumination pulse is applied to the pixel for illuminating the display element for a predetermined number of units of duration where the units of duration can be in fractions of milliseconds, etc.

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