

[11] **Patent Number:** **5,546,013**

[45] **Date of Patent:** Aug. 13, 1996

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- Primary Examiner—Vinh P. Nguyen
Attorney, Agent, or Firm—David Aker

- [57]
- ABSTRACT**

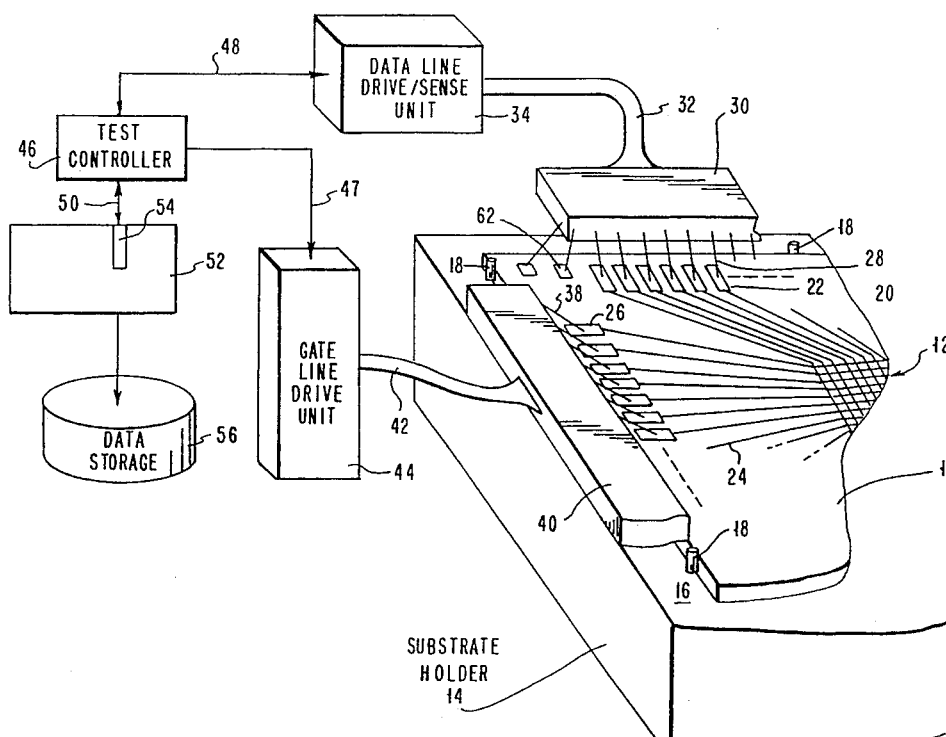
- An apparatus for testing for and classifying defects in a TFT/LCD array having gate lines and data lines. Devices are provided for activating cells of the array by applying gate pulses to the gate lines and pulses to the data lines. Devices are also provided for acquiring waveforms from data lines of the array. Additional devices sample the waveforms at selected points in time. A computer may be used to classify the waveforms to indicate whether defects are present and if present, the nature of the defects by comparing voltages of the waveform at the selected points in time.

- [58] **Field of Search** 324/770, 73.1,
324/765, 158.1; 250/310; 365/98, 100,
87; 359/55, 57, 59; 371/25.1, 15.1, 22.1;
364/481

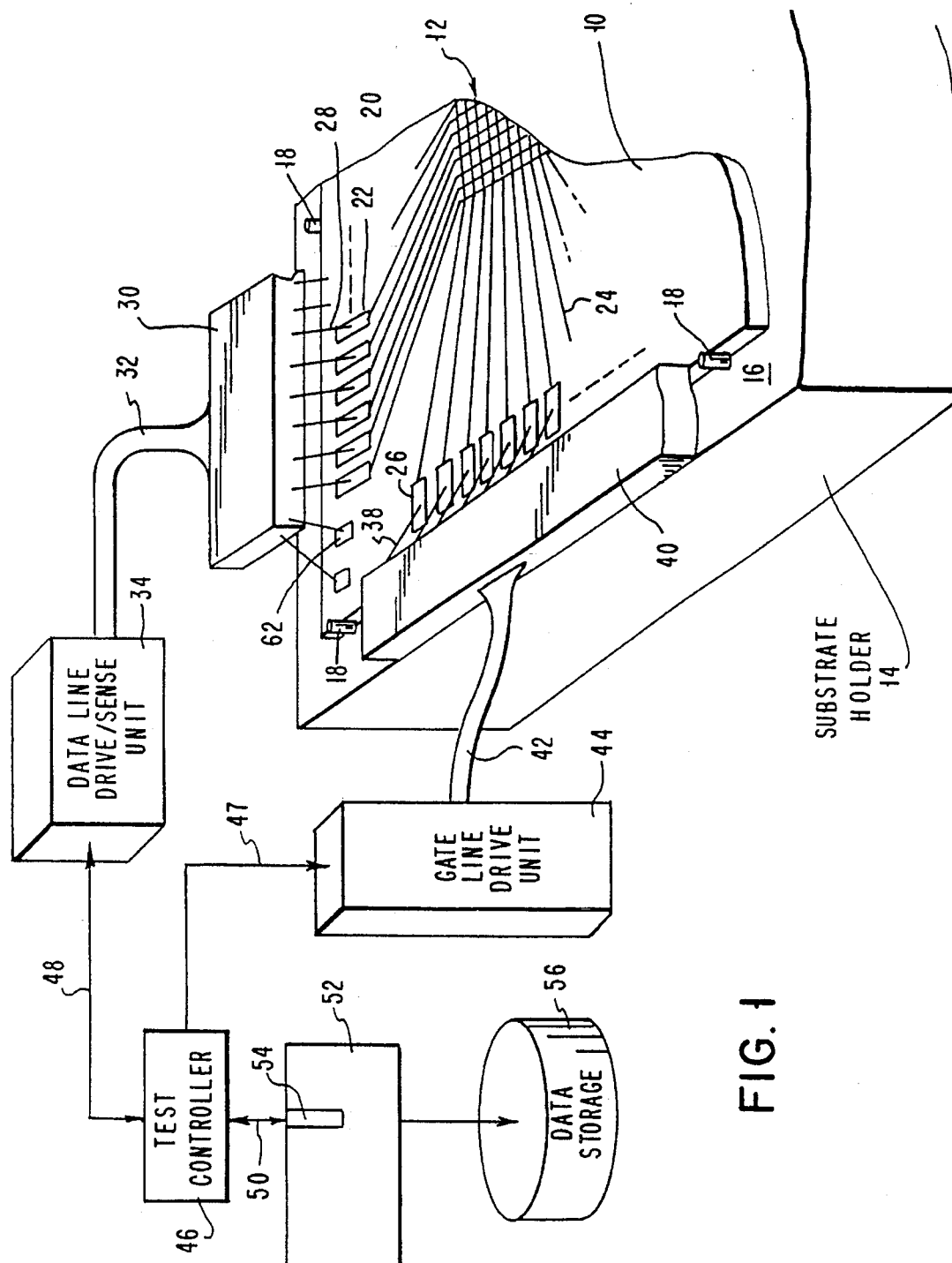
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4 Claims, 10 Drawing Sheets



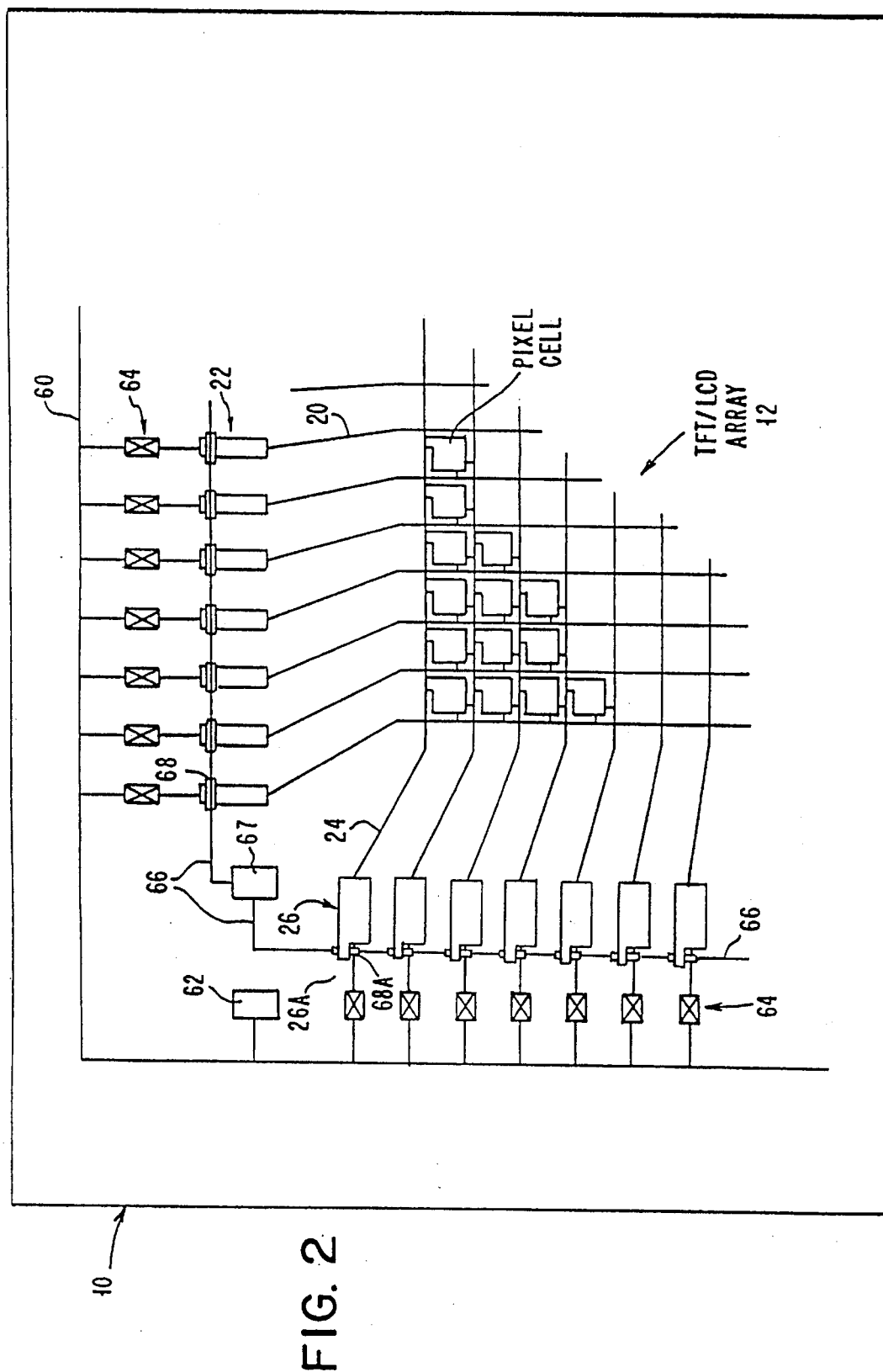


FIG. 3

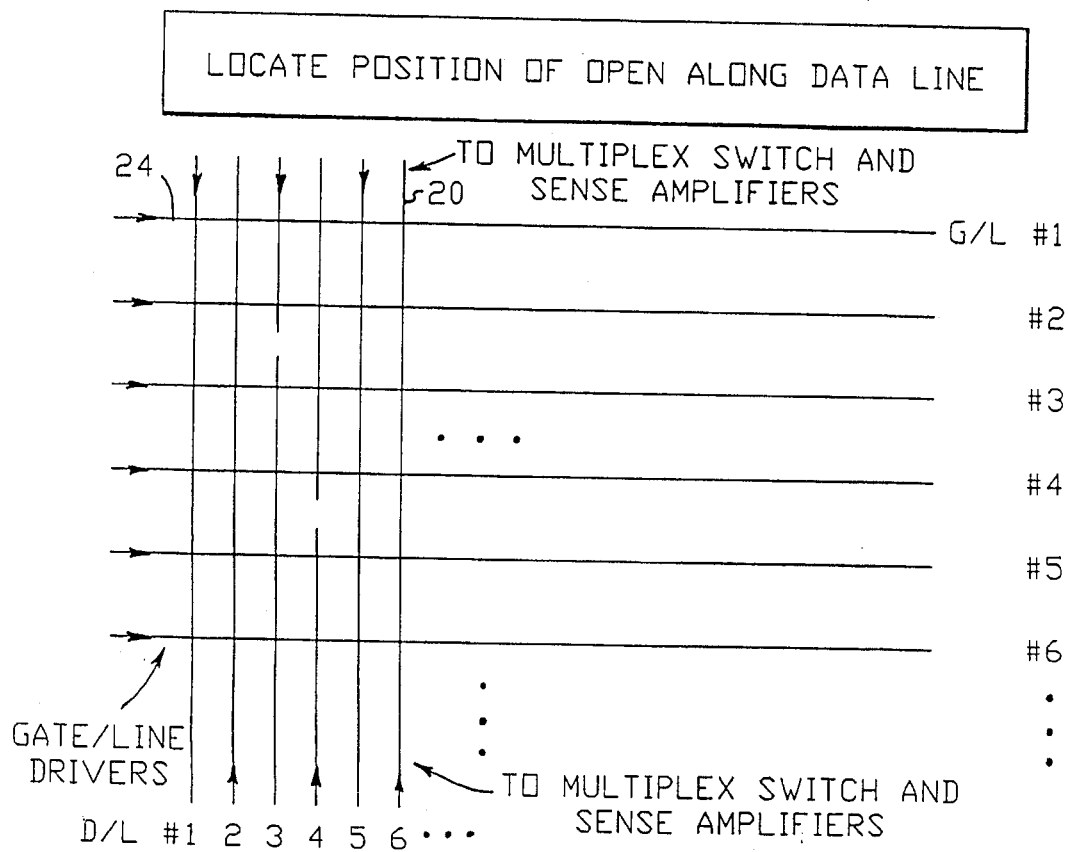
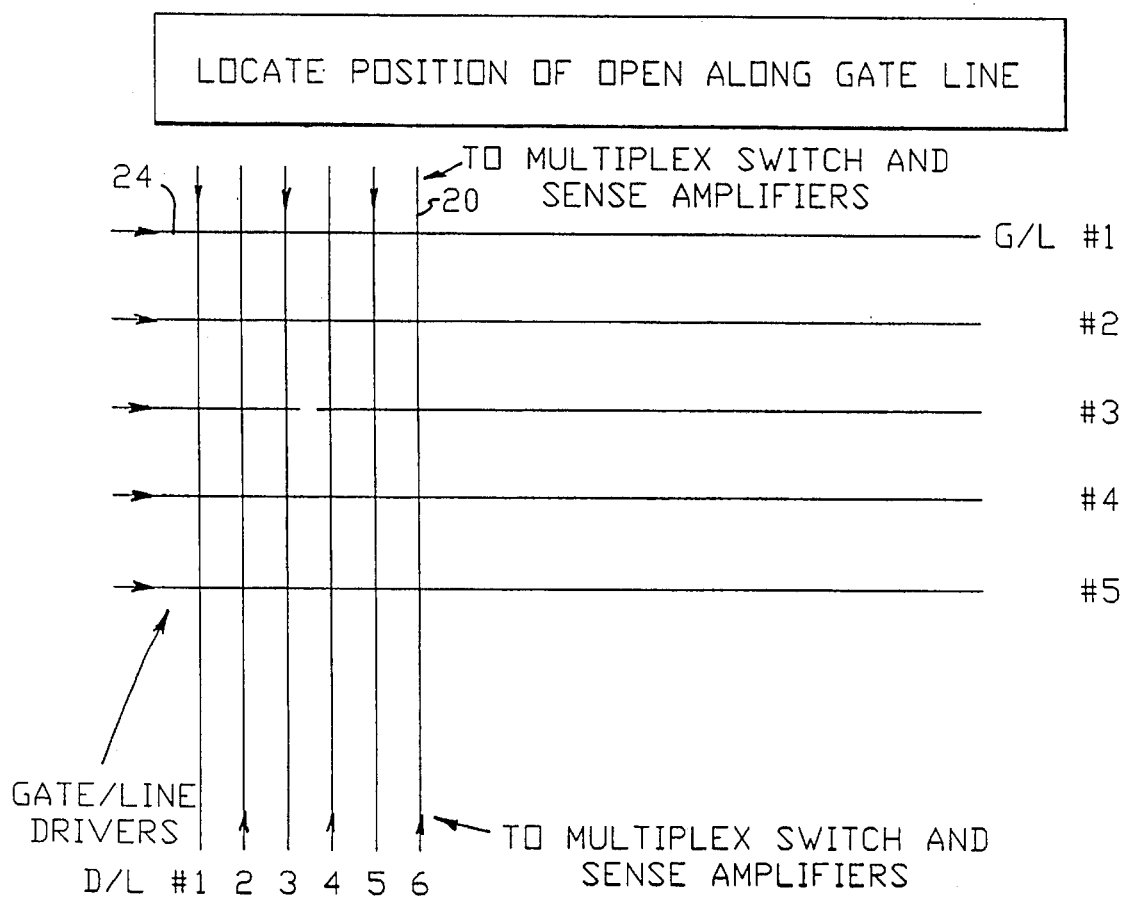


FIG. 4



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