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(54) **LOW-POWER ORGANIC LIGHT EMITTING DIODE PIXEL CIRCUIT**

(75) Inventors: **James Lawrence Sanford**, Hopewell Junction, NY (US); **Eugene S. Schlig**, Somers, NY (US)

(73) Assignee: **International Business Machines Corporation**, Armonk, NY (US)

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(58) **Field of Search** 257/59, 88, 93; 345/76, 82; 315/169.3, 169.1

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Primary Examiner—David Nelms
Assistant Examiner—Tu-Tu Ho
(74) *Attorney, Agent, or Firm*—Ohlandt, Greeley, Ruggiero & Perle, L.L.P.; Robert M. Trepp

(57) **ABSTRACT**

A pixel circuit comprises an organic light emitting diode (OLED), and a static memory for storing data that represents an operational state of the OLED. In alternative embodiments, a pixel circuit may include a complementary metal oxide semiconductor (CMOS) circuit for controlling the OLED, a protection circuit for protecting the CMOS circuit from an over-voltage condition, and a current source with a field effect transistor (FET) having a static gate to source voltage that is greater than a threshold voltage of the FET.

26 Claims, 8 Drawing Sheets
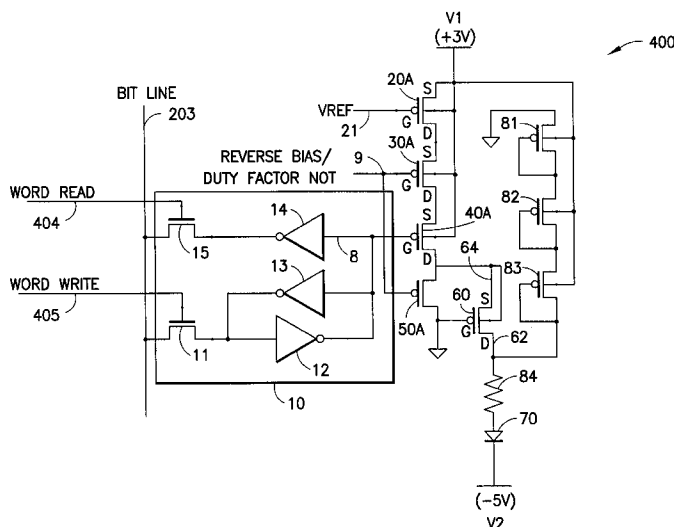
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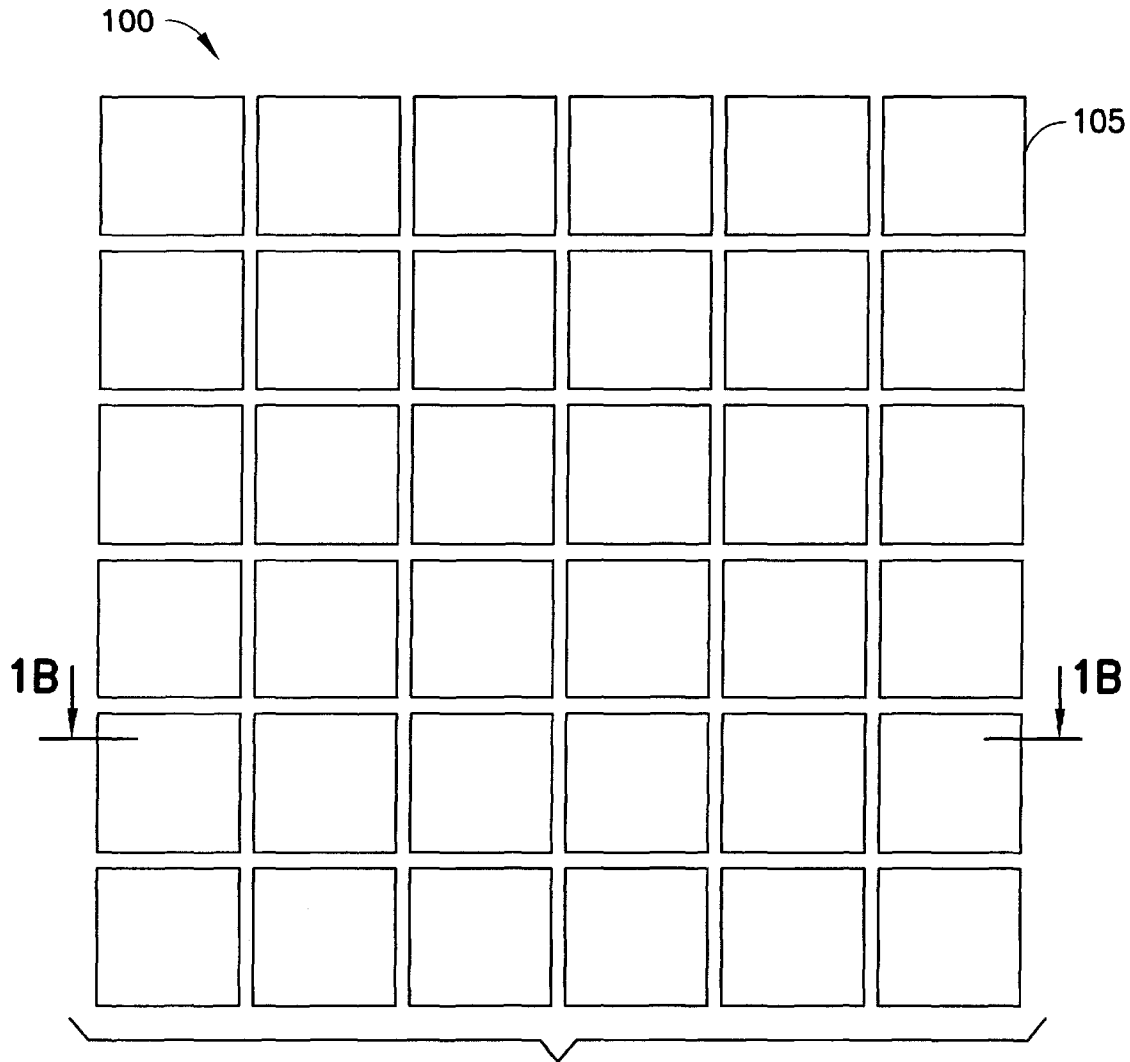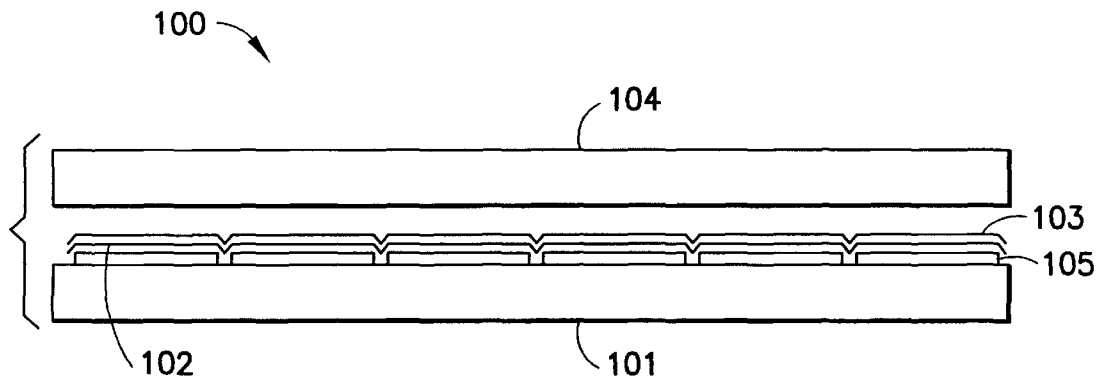
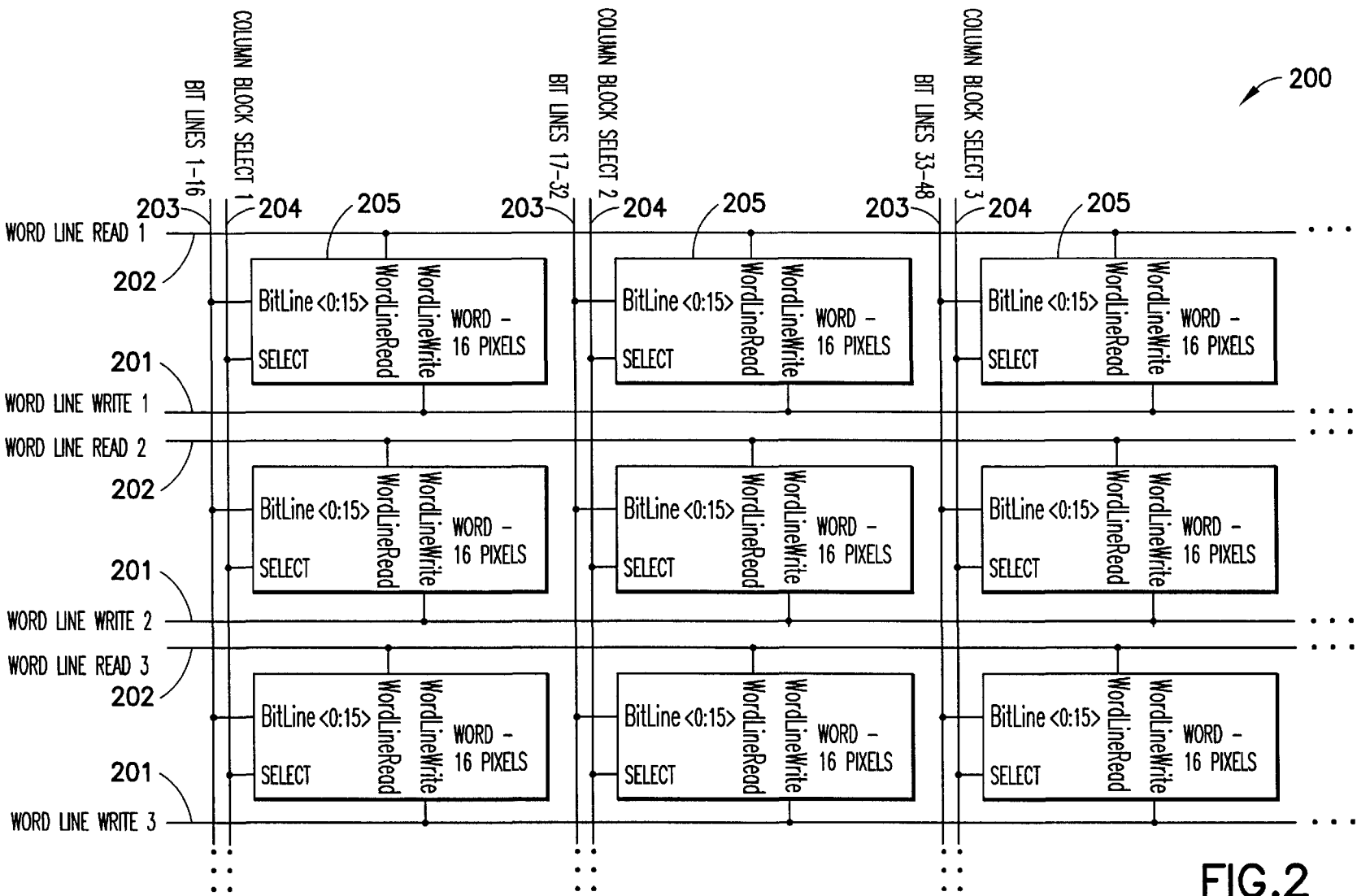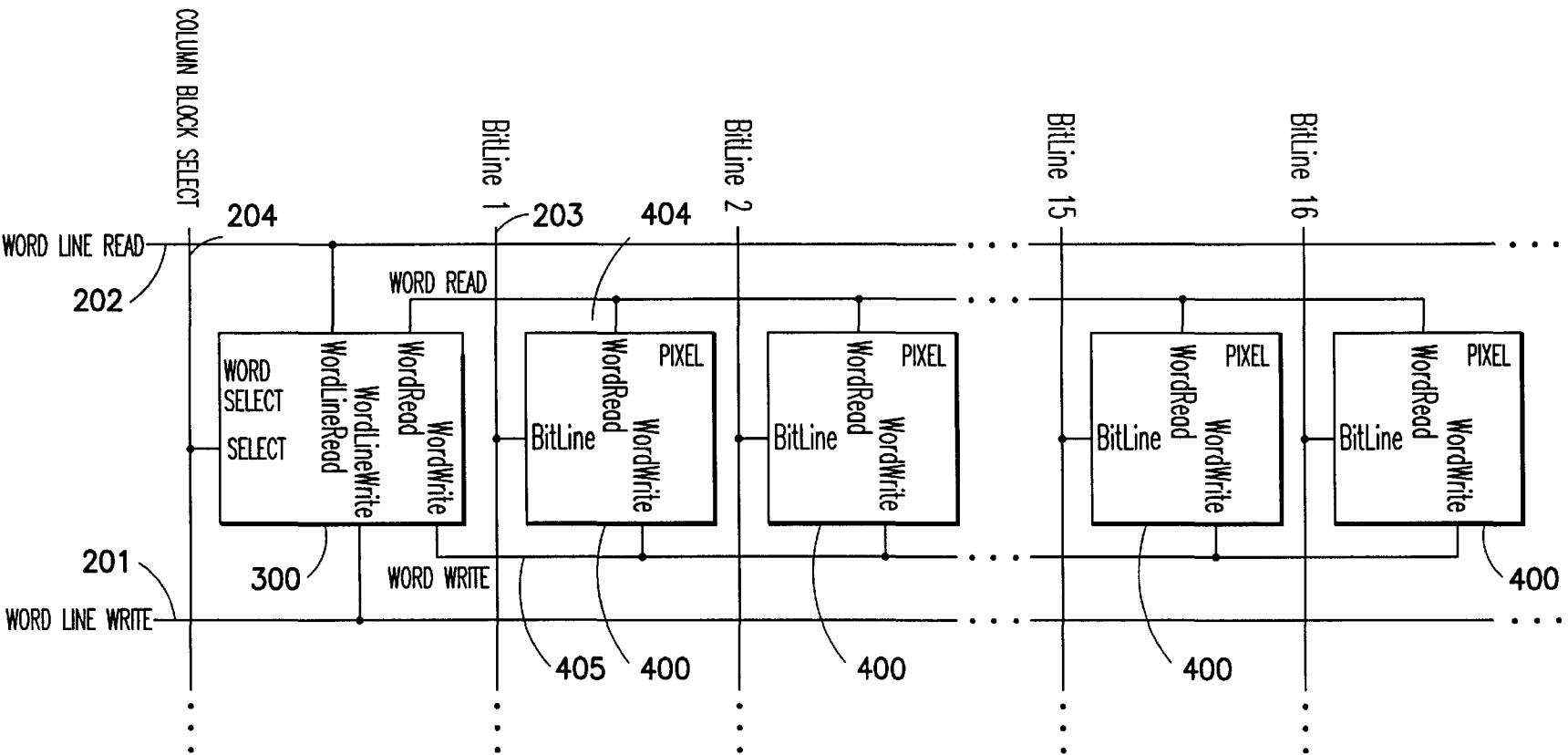* cited by examiner

FIG.1A

FIG.1B

FIG.2

FIG.3

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