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Shirasaki et al.

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(54) **DISPLAY DRIVE APPARATUS, DISPLAY APPARATUS AND DRIVE CONTROL METHOD THEREOF**

(75) Inventors: **Tomoyuki Shirasaki**, Higashiyamato (JP); **Jun Ogura**, Fussa (JP)

(73) Assignee: **Casio Computer Co., Ltd.**, Tokyo (JP)

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(51) **Int. Cl.**
G09G 5/00 (2006.01)

(52) **U.S. Cl.** **345/212**; 345/98; 345/99; 345/100; 345/204

(58) **Field of Classification Search** 345/76–83, 345/87–100, 204–215, 690
See application file for complete search history.

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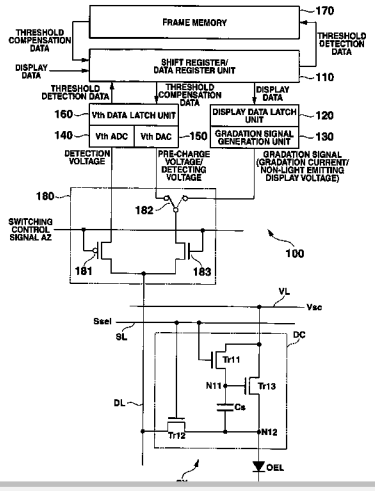
Primary Examiner — Vijay Shankar
(74) *Attorney, Agent, or Firm* — Holtz, Holtz, Goodman & Chick, PC

(57) **ABSTRACT**

There is provided a display drive apparatus for operating, in accordance with display data, a current control type optical elements each having a display pixel provided with the optical element and a drive element which supplies a driving current to the optical element. The display drive apparatus includes a gradation signal creating circuit which generates a gradation signal corresponding to a luminance gradation of the display data and supplies the gradation signal to the display pixel, a threshold voltage detection circuit which detects a threshold voltage peculiar to the drive element of the display pixel, and a compensation voltage application circuit which generates a compensation voltage for compensating for the threshold voltage of the drive element on the basis of the threshold voltage and applies the compensation voltage to the drive element.

39 Claims, 36 Drawing Sheets



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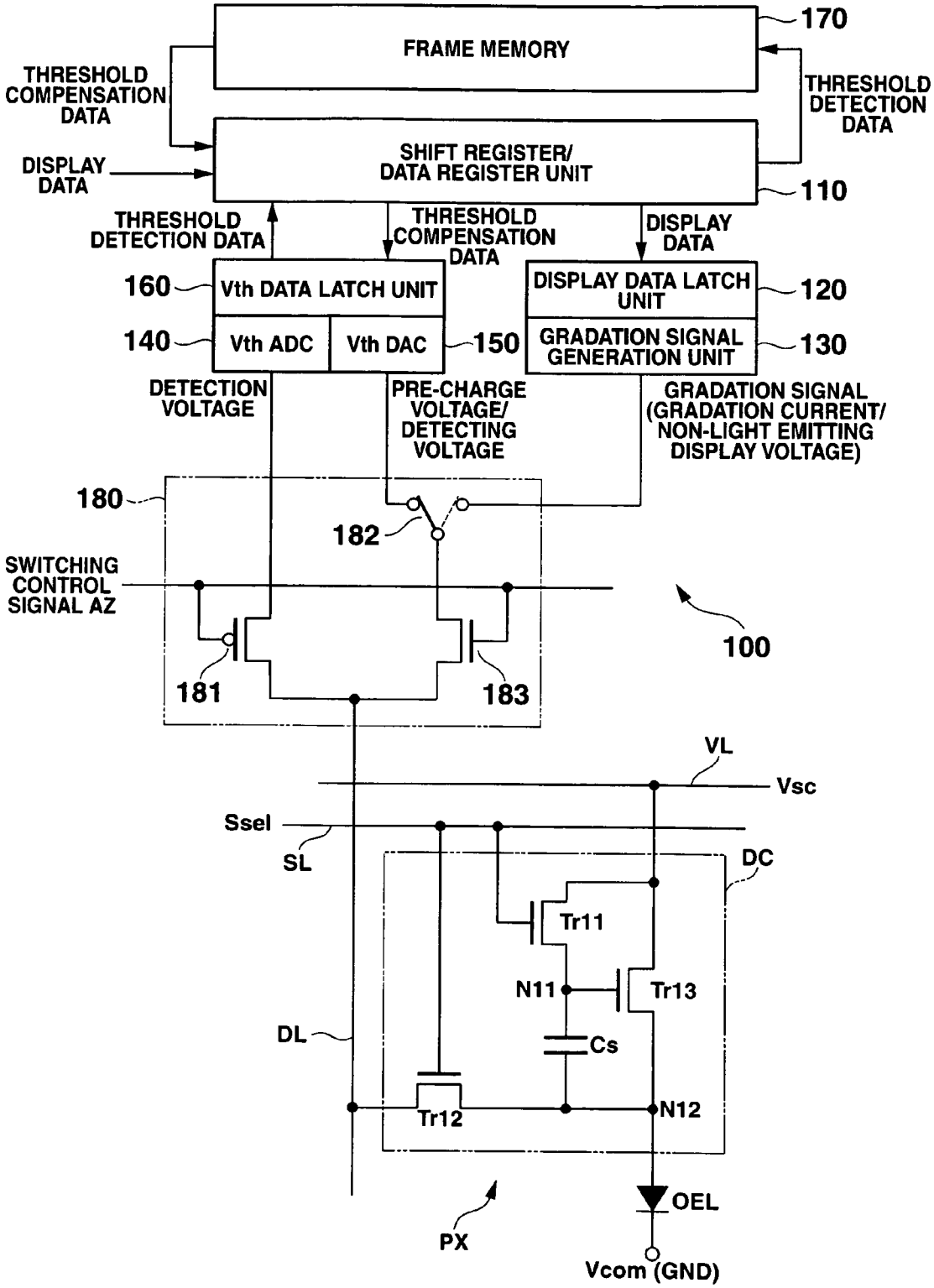

FIG.1

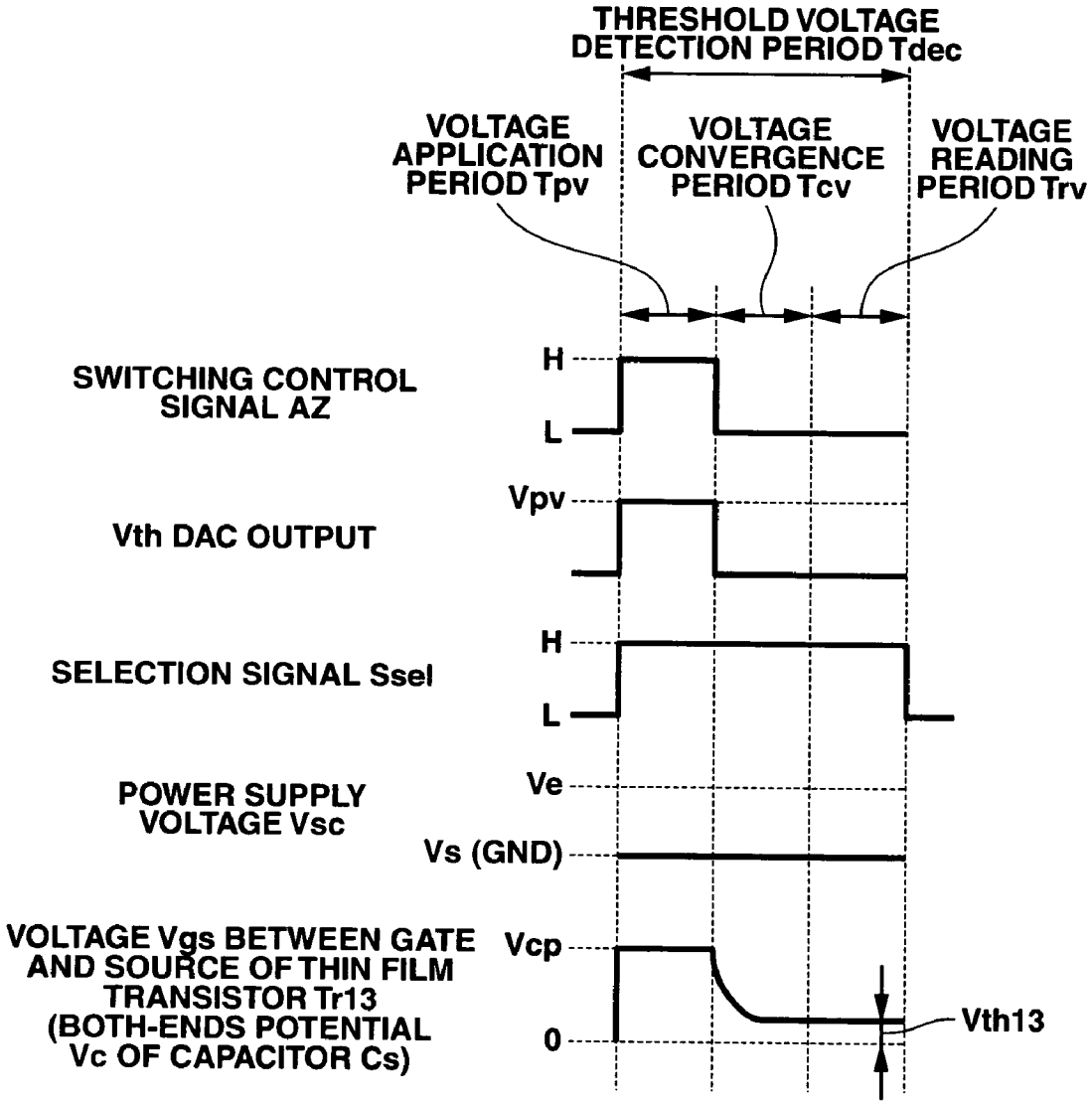

FIG.2

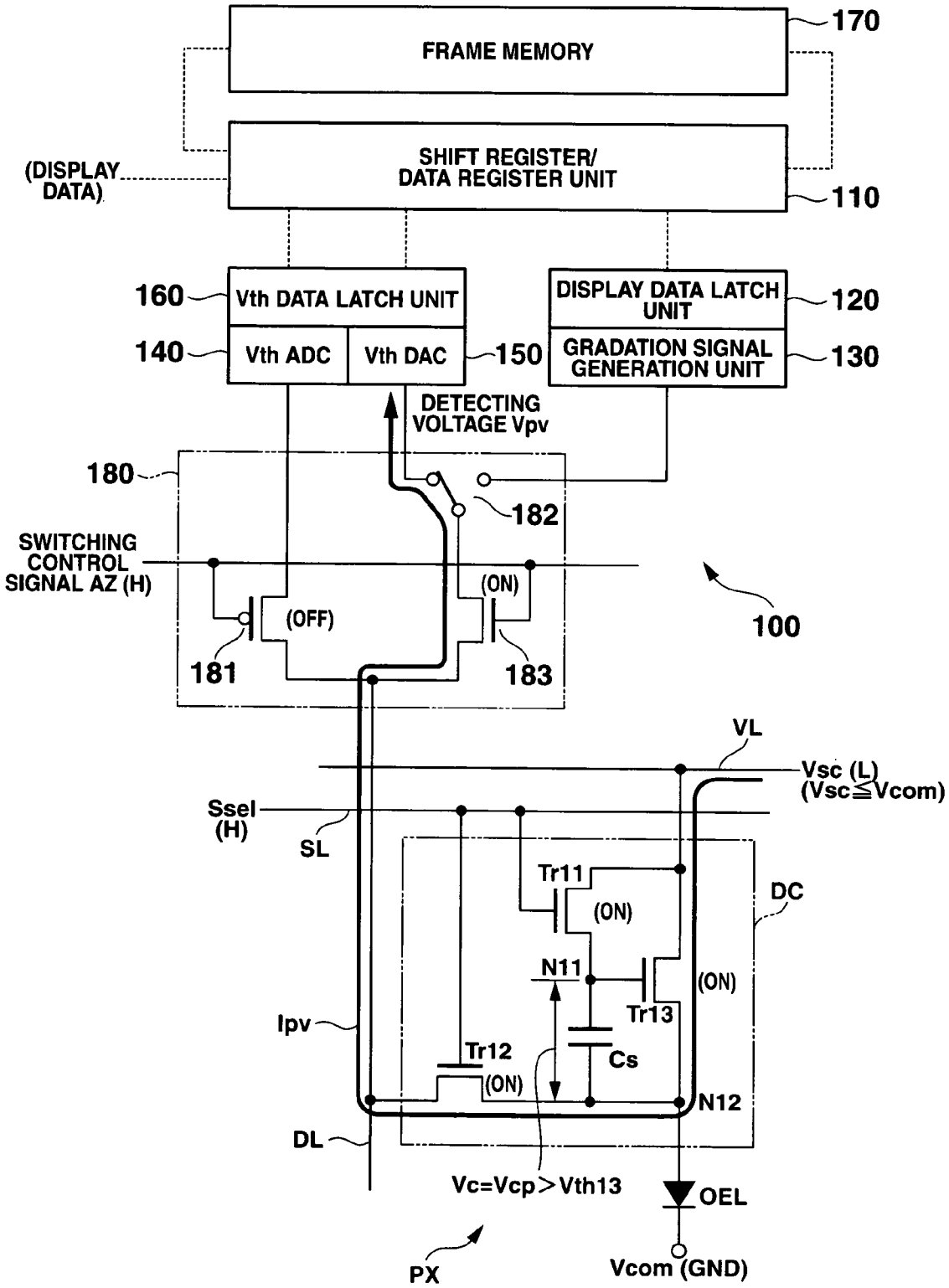

FIG.3

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