

Title (en)

ELECTRONIC DEVICES HAVING DISPLAYS WITH COMPENSATION FOR OXIDE TRANSISTOR THRESHOLD VOLTAGE

Title (de)

ELEKTRONISCHE VORRICHTUNGEN MIT ANZEIGEN MIT KOMPENSATION FÜR OXIDTRANSISTOR-SCHWELLENSPANNUNG

Title (fr)

DISPOSITIFS ÉLECTRONIQUES À AFFICHAGES AVEC COMPENSATION POUR TENSION DE SEUIL DE TRANSISTOR À OXYDE

Publication

EP 3686875 A1 20200729 (EN)

Application

EP 20153036 A 20200122

Priority

- CN 201910079924 A 20190128
- US 201916283481 A 20190222

Abstract (en)

A display may have an array of organic light-emitting diode display pixels. Each display pixel may include a drive transistor coupled in series with one or more emission transistors and a respective organic light-emitting diode (OLED). A semiconducting-oxide transistor may be coupled between a drain terminal and a gate terminal of the drive transistor to help reduce leakage during low-refresh-rate display operations. To compensate for variations in the threshold voltage of the semiconducting-oxide transistor, the magnitude of a high voltage level of a scan control signal provided to the gate terminal of the semiconducting-oxide transistor may be adjusted. Sensing circuitry may be used to sense a display current while displaying a calibration image. The sensed display current may be compared to an expected display current associated with the calibration image. Processing circuitry may update the high voltage level based on the actual display current compared to the expected display current.

IPC 8 full level

G09G 3/3233 (2016.01)

CPC (source: EP)

G09G 3/3233 (2013.01); **G09G 2300/0819** (2013.01); **G09G 2300/0842** (2013.01); **G09G 2300/0861** (2013.01); **G09G 2320/0233** (2013.01); **G09G 2320/0285** (2013.01); **G09G 2320/029** (2013.01); **G09G 2320/0693** (2013.01)

Citation (applicant)

- US 201916283481 A 20190222
- CN 201910079924 A 20190128

Citation (search report)

- [XAYI] US 2016372035 A1 20161222 - NAKATANI TOSHIKUNI [JP]
- [XYI] US 2016019839 A1 20160121 - IN HAI-JUNG [KR]
- [XYI] US 2015170571 A1 20150618 - PARK KISU [KR], et al
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CN114078438A; CN113450715A; US11568823B2; US11984064B2; WO2023142049A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

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DOCDB simple family (application)

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