Title (en)
PIXEL CIRCUIT FOR AN ACTIVE MATRIX OLED DISPLAY

Title (de)
PIXELSCHALTUNG FÜR EIN AKTIV-MATRIX OLED-DISPLAY

Title (fr)
CIRCUIT DE PIXELS POUR UN AFFICHAGE À DIODES ÉLECTROLUMINESCENTES ORGANIQUES À MATRICE ACTIVE

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Application
EP 11738944 A 20110427

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Abstract (en)
[origin: WO2011134461A1] The invention relates to a circuit arrangement for organic light-emitting diodes arranged in a two-dimensional matrix. It can be used in particular in microdisplays. The object of the invention is to enable extensive influencing of the brightness and of the electromagnetic radiation emitted by the organic light-emitting diodes. With the circuit arrangement according to the invention, each organic light-emitting diode (5) can be driven by means of a storage circuit (10), a read amplifier (20) and a driver circuit (30). The driver circuit is formed by at least three series-connected transistors (1-3) and a further output transistor (4), the drain of which is connected to the anode of the respective organic light-emitting diode. In this case, a constant electrical operating voltage LVDD is applied to the source of the transistor (1) acting as driver, and a further likewise constant electrical operating voltage VDrive is applied to the gate of said transistor. The drain of the first transistor (1) is connected to the source of the transistor (2) which is connected in series next to said first transistor. Both gates of the following series-connected transistors (2, 3), which form a switch, are connected to the output of the read amplifier, and the electrical output voltage VSenseOut of said read amplifier is applied to said gates. The drains of the two transistors forming the switch are connected to the source of the output transistor (4), the gate of which is connected to ground potential or has a negative electrical voltage applied to it.

IPC 8 full level
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