

Title (en)

CIRCUIT ARRANGEMENT AND METHOD FOR ADDRESSING LEDS IN A MATRIX CONFIGURATION

Title (de)

SCHALTUNGSANORDNUNG UND VERFAHREN ZUR ANSTEUERUNG VON LEDS IN MATRIX-KONFIGURATION

Title (fr)

ENSEMBLE CIRCUIT ET PROCÉDÉ DE COMMANDE DE DEL SITUÉES EN CONFIGURATION DE MATRICE

Publication

EP 3170368 B1 20220810 (DE)

Application

EP 15734316 A 20150622

Priority

- DE 102014213853 A 20140716
- EP 2015063968 W 20150622

Abstract (en)

[origin: WO2016008677A2] The invention relates to a circuit arrangement for addressing LEDs in a matrix configuration having m columns and n rows, wherein each LED (LED11, LED12, LED21, LED22) of the matrix can be individually addressed by the actuation of a corresponding column driver (S01, S02) in conjunction with the actuation of a corresponding row driver (S10, S20), with a bias system (12) for each row. The bias system (12) comprises a first bias connection (14) for electrically coupling to the cathodes of m LEDs (LED11, LED12) of the row and a second bias connection (16) for electrically coupling to the anodes of m LEDs (LED11, LED12) of the row, each LED (LED11, LED12, LED21, LED22) of the matrix being coupled to the connection of a column addressing system (S01, S02) by respective semiconductor diodes (D11, D12, D21, D22), and in addition, n semiconductor diodes (D11, D21) associated with the same column are each electrically interconnected at one of their respective electrodes. The invention further relates to a display device and to a household appliance having such a circuit arrangement, and to a method for addressing LEDs in a matrix configuration.

IPC 8 full level

H05B 45/46 (2020.01); **H05B 45/50** (2022.01); **H05B 45/59** (2022.01)

CPC (source: CN EP RU US)

H05B 44/00 (2022.01 - RU); **H05B 45/00** (2020.01 - EP US); **H05B 45/46** (2020.01 - CN EP); **H05B 45/50** (2020.01 - CN EP RU US); **H05B 45/59** (2022.01 - CN EP RU US)

Citation (examination)

- US 7382241 B1 20080603 - HUANG ZHEN QIU [US], et al
- US 2010295471 A1 20101125 - ISHIKURA KEITA [JP], et al
- US 2009135618 A1 20090528 - CHANG ABRAM [TW], et al

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

DOCDB simple family (publication)

DE 102014213853 A1 20160121; CN 106538057 A 20170322; CN 106538057 B 20180413; EP 3170368 A2 20170524; EP 3170368 B1 20220810; RU 2017102498 A 20180816; RU 2017102498 A3 20180824; RU 2670967 C2 20181026; RU 2670967 C9 20181121; WO 2016008677 A2 20160121; WO 2016008677 A3 20160317

DOCDB simple family (application)

DE 102014213853 A 20140716; CN 201580038599 A 20150622; EP 15734316 A 20150622; EP 2015063968 W 20150622; RU 2017102498 A 20150622