

Title (en)

MICRO DISPLAY DEVICE, DATA DRIVING CIRCUIT, AND METHOD FOR INSPECTING SAME

Title (de)

MIKROANZEIGEVORRICHTUNG, DATENTREIBERSCHALTUNG UND VERFAHREN ZUR INSPEKTION DAVON

Title (fr)

DISPOSITIF DE MICRO-AFFICHAGE, CIRCUIT DE COMMANDE DE DONNÉES ET PROCÉDÉ D'INSPECTION DE CELUI-CI

Publication

EP 4297010 A3 20240320 (EN)

Application

EP 23207965 A 20200728

Priority

- KR 20190127865 A 20191015
- EP 20877953 A 20200728
- KR 2020009942 W 20200728

Abstract (en)

A display device comprising a pixel unit including a plurality of pixels, each including a luminous element and a pixel circuit connected to the luminous element; a clock generator configured to generate a plurality of clock signals each corresponding to each of a plurality of subframes constituting a frame; and a parallel to serial converter configured to convert the plurality of clock signals to a serial clock signal and transfer the serial clock signal to the pixel unit; and wherein the pixel circuit of each pixel includes a first pixel circuit configured to control light-emission and non-emission of the luminous element in response to a control signal applied to each of the plurality of subframes; and a second pixel circuit configured to store bit values of image data in the frame and generate the control signal based on the stored bit values and the serial clock signal such that each subframe included in the frame is controlled according to each bit value.

IPC 8 full level

G09G 3/32 (2016.01); **G09G 5/00** (2006.01); **G09G 5/12** (2006.01)

CPC (source: EP KR)

G09G 3/32 (2013.01 - EP); **G09G 3/3233** (2013.01 - EP); **G09G 3/3291** (2013.01 - EP); **G09G 5/003** (2013.01 - KR); **G09G 5/12** (2013.01 - KR); **G09G 3/2022** (2013.01 - EP); **G09G 2300/0857** (2013.01 - EP); **G09G 2320/0673** (2013.01 - EP); **G09G 2330/12** (2013.01 - EP); **G09G 2360/12** (2013.01 - KR); **G09G 2370/02** (2013.01 - KR); **G09G 2370/08** (2013.01 - EP)

Citation (search report)

- [Y] KR 101942466 B1 20190417 - SAPIEN SEMICONDUCTORS INC [KR] & US 2021118358 A1 20210422 - LEE JAE HOON [KR]
- [Y] US 10319278 B1 20190611 - NHO HYUNWOO [US], 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)

EP 3971881 A1 20220323; **EP 3971881 A4 20230426**; EP 4297010 A2 20231227; EP 4297010 A3 20240320; KR 102108516 B1 20200508; WO 2021075678 A1 20210422

DOCDB simple family (application)

EP 20877953 A 20200728; EP 23207965 A 20200728; KR 20190127865 A 20191015; KR 2020009942 W 20200728