

Title (en)

SHARED PHOTODIODE RESET IN A 5 TRANSISTOR - FOUR SHARED PIXEL

Title (de)

GETEILTE PHOTODIODENRÜCKSETZUNG IN EINEM 5-TRANSISTOR VIER GETEILTE PIXEL

Title (fr)

RÉINITIALISATION DE PHOTODIODE PARTAGÉE DANS UN CAPTEUR D'IMAGE À 4 PIXELS PARTAGÉS ET À 5 TRANSISTORS

Publication

**EP 3632097 A4 20201230 (EN)**

Application

**EP 18809391 A 20180530**

Priority

- US 201762512399 P 20170530
- US 201715697349 A 20170906
- US 201815991116 A 20180529
- CA 2018050636 W 20180530

Abstract (en)

[origin: WO2018218354A1] An image sensor that provides global shutter scanning with exposure time control during image capture. The image sensor includes a pixel array with shared pixel units that each include four photodiodes with a floating diffusion node shared therebetween and respective global shutter gates disposed between each photodiode and a supply voltage of the pixel array. Moreover, an image capture timing controller controls an exposure time of each photodiode by adjusting a width of a global shutter reset pulse applied to the plurality of global shutter gates after each readout cycle during image capture to change the respective exposure time of each shared pixel unit.

IPC 8 full level

**H04N 25/46** (2023.01)

CPC (source: EP)

**H01L 27/14603** (2013.01); **H01L 27/14641** (2013.01); **H04N 25/40** (2023.01); **H04N 25/46** (2023.01); **H04N 25/532** (2023.01); **H04N 25/57** (2023.01); **H04N 25/77** (2023.01); **H04N 25/778** (2023.01); **H04N 25/78** (2023.01)

Citation (search report)

- [Y] US 2014320718 A1 20141030 - FAN XIAOFENG [US]
- [Y] US 2014247378 A1 20140904 - SHARMA ANUP K [US], et al
- [A] WO 2009054962 A1 20090430 - ALTASENS INC [US], et al
- [A] JP 2007089231 A 20070405 - MATSUSHITA ELECTRIC IND CO LTD
- See also references of WO 2018218354A1

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)

**WO 2018218354 A1 20181206**; CA 3065343 A1 20181206; EP 3632097 A1 20200408; EP 3632097 A4 20201230

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**CA 2018050636 W 20180530**; CA 3065343 A 20180530; EP 18809391 A 20180530