

Title (en)
COLOR AND INFRARED IMAGE SENSOR

Title (de)
FARB- UND INFRAROTBILDSENSOR

Title (fr)
CAPTEUR D'IMAGES COULEUR ET INFRAROUGE

Publication
EP 3931874 A1 20220105 (FR)

Application
EP 20713709 A 20200221

Priority
• FR 1902158 A 20190301
• FR 2020050338 W 20200221

Abstract (en)
[origin: WO2020178498A1] The present disclosure relates to a color and infrared image sensor (1) comprising a silicon substrate (10), MOS transistors (16) formed in the substrate and on the substrate, first photodiodes (2) formed at least partially in the substrate, disjoint photosensitive blocks (26) covering the substrate and color filters (34) covering the substrate, the image sensor further comprising first and second electrodes (22, 28) on either side of each photosensitive block and delimiting a second photodiode (4) in each photosensitive block. The first photodiodes are configured to absorb the electromagnetic waves of the visible spectrum and each photosensitive block is configured to absorb the electromagnetic waves of the visible spectrum and of a first portion of the infrared spectrum.

IPC 8 full level
H01L 27/146 (2006.01); **H04N 23/12** (2023.01)

CPC (source: EP KR US)
H01L 27/14621 (2013.01 - EP KR); **H01L 27/14627** (2013.01 - KR); **H01L 27/14643** (2013.01 - KR); **H01L 27/14645** (2013.01 - EP); **H01L 27/14665** (2013.01 - EP KR); **H04N 23/11** (2023.01 - US); **H10K 39/32** (2023.02 - KR US); **H01L 27/14627** (2013.01 - EP); **H10K 39/32** (2023.02 - EP)

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)
FR 3093378 A1 20200904; **FR 3093378 B1 20221223**; CN 113795921 A 20211214; EP 3931874 A1 20220105; JP 2022522373 A 20220418; JP 7486513 B2 20240517; KR 20210132172 A 20211103; TW 202101747 A 20210101; TW I836008 B 20240321; US 2022141400 A1 20220505; WO 2020178498 A1 20200910

DOCDB simple family (application)
FR 1902158 A 20190301; CN 202080032779 A 20200221; EP 20713709 A 20200221; FR 2020050338 W 20200221; JP 2021551977 A 20200221; KR 20217031308 A 20200221; TW 109105133 A 20200218; US 202017435347 A 20200221