Title (en)

OPTICAL FINGERPRINT SENSOR WITH FOLDED LIGHT PATH

Title (de)

OPTISCHER FINGERABDRUCKSENSOR MIT GEFALTETEM LICHTWEG

Title (fr)

CAPTEUR OPTIQUE D'EMPREINTE DIGITALE À TRAJET LUMINEUX PLIÉ

Publication

EP 3619645 A1 20200311 (EN)

Application

EP 19797540 A 20190723

Priority

- US 201862703432 P 20180725
- US 201916246549 A 20190114
- CN 2019097262 W 20190723

Abstract (en)

[origin: WO2020020143A1] An optical fingerprint sensor module includes a light source configured to provide illumination light directed toward a finger to generate signal light scattered or reflected off of the finger, a photodiode array having a surface, an optically transparent spacer disposed over the surface of the photodiode array, a first mirror configured to reflect the signal light, a lens configured to receive and refract the signal light reflected by the first mirror, a member defining a pinhole disposed behind the lens and configured to transmit the signal light refracted by the lens, a second mirror disposed behind the pinhole and above the optically transparent spacer and configured to reflect the signal light transmitted through the pinhole toward the surface of the photodiode array, and electronic circuitries configured to process electrical signals generated by the photodiode array to produce an image of a fingerprint pattern of the finger.

IPC 8 full level

G06K 9/00 (2006.01); **G06F 3/041** (2006.01); **G06F 21/32** (2013.01)

CPC (source: EP)

G06F 21/32 (2013.01); **G06F 21/83** (2013.01); **G06V 40/1318** (2022.01); G06F 3/041 (2013.01)

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)

WO 2020020143 A1 20200130; CN 112154443 A 20201229; CN 112154443 B 20240426; EP 3619645 A1 20200311; EP 3619645 A4 20200527

DOCDB simple family (application)

CN 2019097262 W 20190723; CN 201980002772 A 20190723; EP 19797540 A 20190723