

Title (en)

PHOTO-SENSING DETECTION APPARATUS, DISPLAY APPARATUS, METHOD OF FINGERPRINT DETECTION, AND METHOD OF OPERATING DISPLAY APPARATUS

Title (de)

LICHTERFASSENDE DETEKTIONSVORRICHTUNG, ANZEIGEVORRICHTUNG, VERFAHREN ZUR FINGERABDRUCKDETEKTION UND VERFAHREN ZUM BETRIEB EINER ANZEIGEVORRICHTUNG

Title (fr)

APPAREIL DE DÉTECTION PAR PHOTODÉTECTION, APPAREIL D'AFFICHAGE, PROCÉDÉ DE DÉTECTION D'EMPREINTES DIGITALES, ET PROCÉDÉ DE COMMANDE D'APPAREIL D'AFFICHAGE

Publication

EP 4032008 A4 20220907 (EN)

Application

EP 19945444 A 20190917

Priority

CN 2019106225 W 20190917

Abstract (en)

[origin: WO2021051276A1] A photo-sensing detection apparatus includes a counter substrate (2); an array substrate (1) facing the counter substrate (2); and a fingerprint sensing driver (3). The array substrate (1) includes a plurality of light sources(10) configured to emit light toward the counter substrate (2), at least a portion of the light being totally reflected by a surface (Sc) of the counter substrate (2) away from the array substrate (1); and a photosensor (20) configured to detect the at least the portion of the light being totally reflected by the surface (Sc) of the counter substrate (2) away from the array substrate (1). The photo-sensing detection apparatus is configured to be operated in a time-division mode including a plurality of time-sequential photo-sensing modes. The fingerprint sensing driver (3) is configured to detect a fingerprint information by integrating signals detected in the plurality of time-sequential photo-sensing modes.

IPC 8 full level

G06V 40/13 (2022.01)

CPC (source: CN EP)

G06V 40/1318 (2022.01 - CN EP)

Citation (search report)

- [X] US 2014355846 A1 20141204 - LEE DONG WON [US], et al
- [I] US 2018269240 A1 20180920 - MAINGUET JEAN-FRANCOIS [FR], et al
- [I] WO 2019080652 A1 20190502 - BOE TECHNOLOGY GROUP CO LTD [CN]
- See also references of WO 2021051276A1

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 2021051276 A1 20210325; CN 110785768 A 20200211; CN 110785768 B 20230428; EP 4032008 A1 20220727; EP 4032008 A4 20220907

DOCDB simple family (application)

CN 2019106225 W 20190917; CN 201980001712 A 20190917; EP 19945444 A 20190917