

Title (en)

LIGHT GUIDE PLATE COMPRISING DECOUPLING ELEMENTS

Title (de)

LICHTFÜHRUNGSPLATTE MIT AUSKOPPELEMENTEN

Title (fr)

PLAQUE DE GUIDAGE DE LUMIÈRE COMPORANT DES ÉLÉMENTS DEXTRACTION

Publication

**EP 2883092 A1 20150617 (DE)**

Application

**EP 13747843 A 20130809**

Priority

- EP 12180247 A 20120813
- EP 2013066687 W 20130809
- EP 13747843 A 20130809

Abstract (en)

[origin: WO2014026918A1] The invention relates to a planar light distribution module for a display, comprising a light guide plate, through which light that can be coupled via at least one lateral surface can propagate by means of total reflection, and comprising at least one planar decoupling system (2) which is mounted on one or both main surfaces of the light guide plate (1), is in optical contact with said plate and contains a plurality of holographic optical elements (13) which are designed in such a way that they can decouple light from the light guide plate (1). The light distribution module is characterised in that the holographic optical elements (13) independently of one another extend by at least 300 µm along at least one spatial axis running parallel to the surface of the decoupling system (2). The invention also relates to an optical display, in particular an electronic display, the holographic optical elements (13) independently of one another having a surface that is 1.5 times greater than the pixels of the liquid crystal module.

IPC 8 full level

**G02B 6/00** (2006.01); **F21V 8/00** (2006.01)

CPC (source: CN EP KR US)

**G02B 6/0035** (2013.01 - CN EP KR US); **G02B 6/0051** (2013.01 - CN EP KR US); **G02B 6/0061** (2013.01 - CN EP KR US)

Citation (search report)

See references of WO 2014026918A1

Citation (examination)

- US 2001004279 A1 20010621 - SAKO TEIYU [JP], et al
- US 2003067760 A1 20030410 - JAGT HENDRIK JOHANNES BOUDEWIJ [NL], 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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**WO 2014026918 A1 20140220**; CN 104871051 A 20150826; EP 2883092 A1 20150617; IN 1063DEN2015 A 20150626;  
JP 2015525960 A 20150907; JP 2018195589 A 20181206; KR 20150043391 A 20150422; RU 2015108651 A 20161010;  
TW 201421084 A 20140601; TW I617847 B 20180311; US 2015205034 A1 20150723

DOCDB simple family (application)

**EP 2013066687 W 20130809**; CN 201380053539 A 20130809; EP 13747843 A 20130809; IN 1063DEN2015 A 20150210;  
JP 2015525896 A 20130809; JP 2018144651 A 20180801; KR 20157006149 A 20130809; RU 2015108651 A 20130809;  
TW 102128781 A 20130812; US 201314420959 A 20130809