

Title (en)
LENTICULE AND PRISM UNIT

Title (de)
LENTIKEL-PRISMEN-EINHEIT

Title (fr)
UNITE DE PRISMES ET DE LENTICULES

Publication
EP 1779151 A1 20070502 (DE)

Application
EP 05742262 A 20050425

Priority
• EP 2005004391 W 20050425
• DE 102004040213 A 20040819

Abstract (en)
[origin: WO2006021242A1] The invention relates to a lenticule and prism unit and an illumination device for an autostereoscopic display. Said display comprises, in the direction of the light, an illumination matrix (7), an imaging matrix (8), and a transmissive image matrix (5). The illumination matrix comprises a plurality of controllable illumination elements (21). The imaging matrix (8) focuses the light of said illumination elements (21) in such a way that the image matrix (5) and a preferred visibility region (6) are illuminated in an oriented manner and consist of a lenticular (LM) and a prism mask (PM) with wedge elements (K1,K2,...) and elements (P1,P2,...) parallel to the plane. Said elements (K1,K2,..., P1,P2,...) are arranged in such a way that, from the light of an illumination element (21) in the visibility region (6), a multiple number of images with an associated widened resulting light density distribution (V) from (A to C') is created. The resulting images of laterally adjacent illumination elements are respectively superimposed on the edge regions thereof, such that an approximately homogeneous light density distribution (V) is achieved. The quality of the image is visibly increased with the obtained homogeneous luminosity.

IPC 8 full level
G02B 3/00 (2006.01); **G02B 27/22** (2006.01); **G02B 30/27** (2020.01); **H04N 13/00** (2006.01)

CPC (source: EP US)
G02B 30/27 (2020.01 - EP US); **H04N 13/305** (2018.04 - EP US); **H04N 13/32** (2018.04 - EP US)

Citation (search report)
See references of WO 2006021242A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
WO 2006021242 A1 20060302; EP 1779151 A1 20070502; US 2007268590 A1 20071122

DOCDB simple family (application)
EP 2005004391 W 20050425; EP 05742262 A 20050425; US 57384705 A 20050425