

Title (en)
LIGHT MULTIPLEXER AND RECYCLER, AND MICRO-PROJECTOR INCORPORATING THE SAME

Title (de)
LICHTMULTIPLEXER UND RECYCLER UND MIKROPROJEKTOR DAMIT

Title (fr)
MULTIPLEXEUR ET RECYCLEUR DE LUMIÈRE, ET MICRO-PROJECTEUR LES INCORPORANT

Publication
EP 2255242 A1 20101201 (EN)

Application
EP 09703066 A 20090120

Priority

- US 2009000356 W 20090120
- US 1145808 P 20080117
- US 13000208 P 20080527
- US 13033608 P 20080530
- US 13095308 P 20080604
- US 13098108 P 20080605
- US 13789508 P 20080804
- US 20076408 P 20081203
- US 20350308 P 20081223
- US 20395008 P 20081230

Abstract (en)
[origin: WO2009091610A1] A micro-projector comprises an LED layer, a light pipe coupled to the LED, a LCOS panel, a projection lens, a PBS, an aperture layer coupled to the output end of the light pipe which has a transmissive opening for transmitting a portion of the light output and a reflective surface for reflecting the remaining portion of the light output toward the input end of the light pipe. Thus, the remaining portion of the light output is recycled back to the LED to increase the brightness of the light output of the LED. The micro- projector also comprises a reflective polarizer disposed between the light pipe and the aperture layer for transmitting the light output of a predetermined polarization and reflecting other polarization of the light output, thereby recycling unused polarization of the light output back to the LED to increase the brightness of the light output of the LED.

IPC 8 full level
G02B 21/14 (2006.01); **F21V 7/04** (2006.01); **F21V 11/00** (2006.01); **G03B 21/28** (2006.01); **G02B 27/09** (2006.01); **G03B 21/14** (2006.01); **G03B 33/06** (2006.01); **G03B 33/12** (2006.01)

CPC (source: EP)
G02B 19/0028 (2013.01); **G02B 19/0066** (2013.01); **G02B 27/0994** (2013.01); **G03B 21/14** (2013.01); **G03B 21/2033** (2013.01); **G03B 21/2066** (2013.01); **G03B 21/2073** (2013.01); **G03B 33/06** (2013.01); **G03B 33/12** (2013.01)

Designated contracting state (EPC)
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 SE SI SK TR

Designated extension state (EPC)
AL BA RS

DOCDB simple family (publication)
WO 2009091610 A1 20090723; **WO 2009091610 A9 20091022**; CA 2710963 A1 20090723; CN 101918877 A 20101215; EP 2255242 A1 20101201; EP 2255242 A4 20120104; JP 2011512547 A 20110421; KR 20100103697 A 20100927

DOCDB simple family (application)
US 2009000356 W 20090120; CA 2710963 A 20090120; CN 200980102275 A 20090120; EP 09703066 A 20090120; JP 2010543150 A 20090120; KR 20107018187 A 20090120