### (19) World Intellectual Property Organization

International Bureau



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# (43) International Publication Date 28 June 2007 (28.06.2007)

CT (10) International Publication Number WO 2007/072335 A3

(51) International Patent Classification: *H04N 9/31* (2006.01) *G03F 7/20* (2006.01) *G02B 27/48* (2006.01)

(21) International Application Number:

PCT/IB2006/054822

(22) International Filing Date:

13 December 2006 (13.12.2006)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/751,533 19 December 2005 (19.12.2005) US 60/863,001 30 October 2006 (30.10.2006) US

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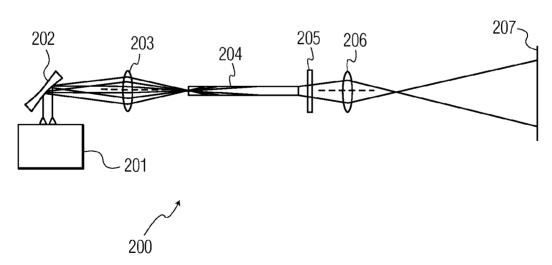
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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### **Declarations under Rule 4.17:**

 as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

[Continued on next page]

(54) Title: SPECKLE REDUCTION BY ANGULAR SCANNING FOR LASER PROJECTION DISPLAYS



(57) Abstract: The present invention provides a system (200) (300) (700) (800) and method for the reduction of speckle by applying a moving mirror (202) in the light engine of a projector. By imaging the mirror surface onto the entrance face of a multimode wave-guide (204), the beam enters the wave-guide (204) at a time -varying angle. When this wave-guide (204) is used to illuminate a display panel, the projected image on the wall has a time-varying speckle pattern. Since the period of the mirror is well below the integration time of the eye, a reduced speckle intensity is perceived. The use of the wave-guide (204) further reduces the speckle intensity due to mode scrambling.



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 as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

#### **Published:**

with international search report

# (88) Date of publication of the international search report: 13 September 2007

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

### INTERNATIONAL SEARCH REPORT

International application No PCT/IB2006/054822

A. CLASSIFICATION OF SUBJECT MATTER INV. H04N9/31 G02B27/48 G03F7/20

According to International Patent Classification (IPC) or to both national classification and IPC

### B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

HO4N GO2B GO3F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

### EPO-Internal

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 970 546 A (SUZUKI KAZUAKI [JP] ET AL)	1,12,21,
	13 November 1990 (1990-11-13) abstract	27
	column 5, line 6 - line 16 column 5, line 61 - column 6, line 3	
Α	figures 1,4,13,14	2-11, 13-20, 22-26, 28-31
Y	US 2005/057727 A1 (TROYER DIANE [US]) 17 March 2005 (2005-03-17) abstract	1-31
	page 23, paragraph 411 - page 24, paragraph 413 figures 1,4,22	
	-/	

Further documents are listed in the continuation of Box C.	X See patent family annex.
* Special categories of cited documents:  "A" document defining the general state of the art which is not considered to be of particular relevance  "E" earlier document but published on or after the international filing date  "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)  "O" document referring to an oral disclosure, use, exhibition or other means  "P" document published prior to the international filing date but later than the priority date claimed	<ul> <li>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</li> <li>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</li> <li>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.</li> <li>"&amp;" document member of the same patent family</li> </ul>
Date of the actual completion of the international search  30 May 2007	Date of mailing of the international search report  06/06/2007
Name and mailing address of the ISA/  European Patent Office, P.B. 5818 Patentlaan 2  NL - 2280 HV Rijswijk  Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  Fax: (+31-70) 340-3016	Authorized officer  Bouffier, Alexandre

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