(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 29 November 2007 (29.11.2007)

(10) International Publication Number WO 2007/136859 A3

(51) International Patent Classification:

(21) International Application Number:

PCT/US2007/012189

(22) International Filing Date: 21 May 2007 (21.05.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/801,748 19 May 2006 (19.05.2006) US

(71) Applicant (for all designated States except US): AVANTIS MEDICAL SYSTEMS, INC. [US/US]; 263 Santa Ana Court, Sunnyvale, CA 94085-4511 (US).

(72) Inventors; and

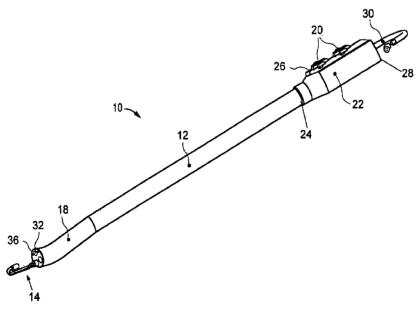
- (75) Inventors/Applicants (for US only): BAYER, Lex [ZA/US]; 4080 Amarantha Avenue, Palo Alto, CA 94306 (US). OKAS, Robert [US/US]; 3767 Bay Road, Menlo Park, CA 94025 (US).
- (74) Agents: ZHU, Song et al.; Squire, Sanders and Dempsey L.L.P., One Maritime Plaza, Suite 300, San Francisco, CA 94111 (US).

- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, 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, LY, MA, MD, ME, 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, MT, 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).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report: 13 March 2008

(54) Title: DEVICE AND METHOD FOR REDUCING EFFECTS OF VIDEO ARTIFACTS



(57) Abstract: A method for reducing an effect of a video artifact includes adjusting a phase of a second imaging device's video clock signal so that a phase of the second imaging device's video synchronization signal matches a phase of a first imaging device's video synchronization signal. An endoscopic system includes a first imaging device, a second imaging device, a light source, and a controller that reduces an artifact in an image produced by the first imaging device. In some embodiments, the first imaging device faces the light source.

INTERNATIONAL SEARCH REPORT

International application No PCT/US2007/012189

A. CLASSIFICATION OF SUBJECT MATTER INV. A61B1/05 G02B2 G02B23/24 A61B1/005 A61B1/04 A61B1/06 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) A61B G02B 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, WPI Data C. DOCUMENTS CONSIDERED TO BE RELEVANT Category* Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. X US 2004/141054 A1 (MOCHIDA AKIHIKO [JP] ET 1-13. AL) 22 July 2004 (2004-07-22) 19-2329-39, 45-51, 59,60 Υ 57,58 abstract paragraph [0136] - paragraph [0138] paragraph [0210] paragraph [0218] - paragraph [0219] US 4 926 258 A (SASAKI MASAHIKO [JP] ET X 1,19,35 AL) 15 May 1990 (1990-05-15) abstract figure 12 column 3, line 10 - line 51 claim 1 -/--Further documents are listed in the continuation of Box C. X See patent family annex. Special categories of cited documents: 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 "A" document defining the general state of the art which is not considered to be of particular relevance invention earlier document but published on or after the international "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 filing date "L" document which may throw doubts on priority claim(s) or which is clied to establish the publication date of another citation or other special reason (as specified) "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 docu-ments, such combination being obvious to a person skilled in the art. document referring to an oral disclosure, use, exhibition or other means document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 2 January 2008 28/01/2008 Name and mailing address of the ISA/ Authorized officer European Patent Office, P.B. 5818 Patentiaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Tx. 31 651 epo nl, Fax: (+31–70) 340–3016 Tommaseo, Giovanni

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2007/012189

C(Continua	tion). DOCUMENTS CONSIDERED TO BE RELEVANT	PCT/US2007/012189						
Category* Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No.								
X	US 5 196 928 A (KARASAWA ISAMU [US] ET AL)	Helevant to claim No.						
^	23 March 1993 (1993-03-23) abstract claims 1,20							
X	US 5 187 572 A (NAKAMURA KAZUNARI [JP] ET AL) 16 February 1993 (1993-02-16)	1						
Y	abstract figure 26 claims 1,3	57,58						
X	US 5 614 943 A (NAKAMURA KAZUNARI [JP] ET AL) 25 March 1997 (1997-03-25) abstract claim 1	1						
A	US 5 178 130 A (KAIYA HARUHIKO [JP]) 12 January 1993 (1993-01-12)	14-18, 24-28, 40,41, 43,44, 52-56						
į	abstract figures 1,2 claim 1							
Ρ,Χ	EP 1 769 720 A (OLYMPUS CORP [JP]) 4 April 2007 (2007-04-04) abstract paragraph [0016] - paragraph [0017] paragraph [0031] - paragraph [0033] paragraph [0040] - paragraph [0042]	1						
A	US 4 862 873 A (YAJIMA AKIHIKO [JP] ET AL) 5 September 1989 (1989-09-05) abstract figure 1	1-60						
A	US 4 853 773 A (HIBINO HIROKI [JP] ET AL) 1 August 1989 (1989-08-01) abstract figure 1 claim 1	1-60						
	0 (continuation of second sheet) (April 2005)							

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/US2007/012189

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 2004141054	A1	22-07-2004	NONE			
US 4926258	Α	15-05-1990	NONE		. میں امیں بست سنن جب اس ک	
US 5196928	Α	23-03-1993	JP	4307024	A	29-10-1992
US 5187572	Α	16-02-1993	DE JP JP	4136034 3164609 5084218	B2	07-05-1992 08-05-2001 06-04-1993
US 5614943	Α	25-03-1997	NONE			
US 5178130	Α	12-01-1993	JP JP	3034898 3289769		17-04-2000 19-12-1991
EP 1769720	A	04-04-2007		1976626 2006020852 2006006452	Α	06-06-2007 26-01-2006 19-01-2006
US 4862873	Α	05-09-1989	DE JP	3818104 63294509		08-12-1988 01-12-1988
US 4853773	Α	01-08-1989	NONE			