



(51) International Patent Classification:

A61B 1/05 (2006.01) A61B 1/045 (2006.01)
A61B 1/04 (2006.01) A61B 1/06 (2006.01)

(21) International Application Number:

PCT/US2010/041502

(22) International Filing Date:

9 July 2010 (09.07.2010)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

12/501,336 10 July 2009 (10.07.2009) US

(71) Applicant (for all designated States except US): **AXIS SURGICAL TECHNOLOGIES, INC.** [US/US]; 325 East Middlefield Road, Mountain View, California 94043 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **SCHULTZ, Eric E.** [US/US]; 521 Pope Street, Menlo Park, California 94025 (US). **CYBULSKI, James S.** [US/US]; 111 Dunsmuir Way, Menlo Park, California 94025 (US). **OUYANG, Xiaolong** [US/US]; 969 Lawrence Lane, Palo Alto, California 94303 (US).

(74) Agent: **FIELD, Bret**; Bozicevic Field & Francis LLP., 1900 University Avenue, Suite 200, East Palo Alto, California 94303 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, 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, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, 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, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(88) Date of publication of the international search report:

28 April 2011

(54) Title: HAND-HELD MINIMALLY DIMENSIONED DIAGNOSTIC DEVICE HAVING INTEGRATED DISTAL END VISUALIZATION

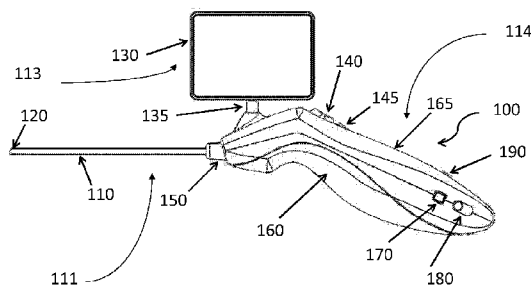


FIG. 1A

(57) Abstract: Hand-held minimally dimensioned diagnostic devices having integrated distal end visualization are provided. Also provided are systems that include the devices, as well as methods of using the devices, e.g., to visualize internal tissue of a subject.



A. CLASSIFICATION OF SUBJECT MATTER*A61B 1/05(2006.01)i, A61B 1/04(2006.01)i, A61B 1/045(2006.01)i, A61B 1/06(2006.01)i*

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 1/05; A61B 1/045; A61B 1/04; A61B 1/06

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

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

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

eKOMPASS(KIPO internal) & Keywords: internal tissue, visualization, hand-held, sensor

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2008-0207996 A1 (JOHN TSAI) 28 August 2008 See abstract, paragraphs 71-76, and figure 6	1-42
A	US 2007-0276183 A1 (PATRICK C. MELDER) 29 November 2007 See abstract, paragraphs 45-52, and figure 5	1-42
A	US 5,873,814 A (EDWIN L. ADAIR) 23 February 1999 See abstract, column 11 line 6 - column 12 line 41, and figures 12,13	1-42
A	US 2008-0091064 A1 (VADIM LASER) 17 April 2008 See abstract, paragraphs 12-32, and figure 1	1-42

 Further documents are listed in the continuation of Box C. 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 application or patent 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 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

"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

"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

"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

"&" document member of the same patent family

Date of the actual completion of the international search

23 FEBRUARY 2011 (23.02.2011)

Date of mailing of the international search report

03 MARCH 2011 (03.03.2011)

Name and mailing address of the ISA/KR

Korean Intellectual Property Office
Government Complex-Daejeon, 139 Seonsa-ro, Seo-gu, Daejeon 302-701, Republic of Korea

Facsimile No. 82-42-472-7140

Authorized officer

Kim, Sae Byul

Telephone No. 82-42-481-8543



INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2010/041502

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2008-0207996 A1	28.08.2008	CN 101212926 A0 WO 2006-130967 A1	02.07.2008 14.12.2006
US 2007-0276183 A1	29.11.2007	EP 1841353 A2 JP 2008-545449 A KR 10-2007-0104539 A WO 2006-071948 A3	10.10.2007 18.12.2008 26.10.2007 26.07.2007
US 5873814 A1	23.02.1999	US 05812188A A US 05957831A A US 06132367A A WO 98-02107 A1	22.09.1998 28.09.1999 17.10.2000 22.01.1998
US 2008-0091064 A1	17.04.2008	None	