

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
3 May 2007 (03.05.2007)

PCT

(10) International Publication Number
WO 2007/050817 A3

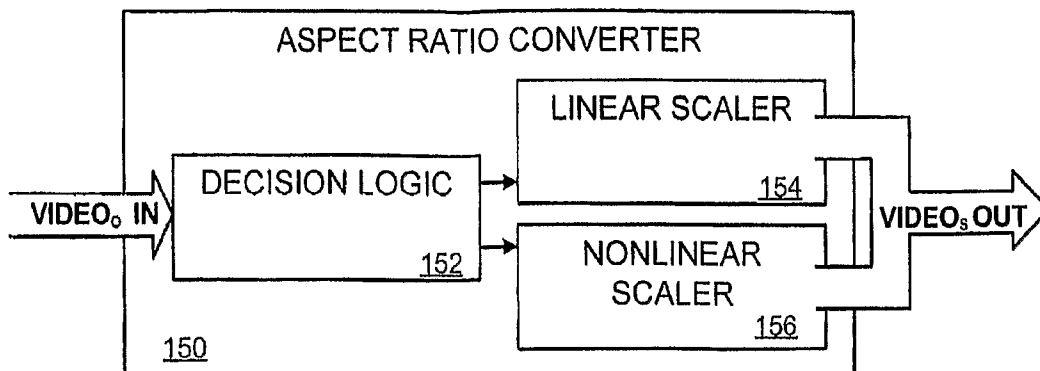
- (51) International Patent Classification:
H04N 11/20 (2006.01) H04N 5/46 (2006.01)
H04N 7/01 (2006.01)
- (21) International Application Number:
PCT/US2006/041895
- (22) International Filing Date: 25 October 2006 (25.10.2006)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/730,247 25 October 2005 (25.10.2005) US
- (71) Applicant (for all designated States except US): **ENUCLIA SEMICONDUCTOR, INC.** [US/US]; 9205 SW Gemini Drive, Beaverton, OR 97008 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **SMITH, Brad** [US/US]; 418 NE 154th St., Vancouver, WA 98685 (US). **RUGGIERO, Carl, J.** [US/US]; 10509 SW Naeve St., Tigard, OR 97224 (US). **MOYER, Todd** [US/US]; 26291 NE Butteville Rd., Aurora, OR 97002 (US).
- (74) Agent: **CREASMAN, Jason, C.**; Alleman Hall McCoy Russell & Tuttle LLP, 806 SW Broadway, Suite 600, Portland, OR 97205 (US).

- (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).

- 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:
10 January 2008

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.

(54) Title: REGION OR FRAME BASED ASPECT RATIO SCALING



(57) Abstract: An aspect ratio converter. The aspect ratio converter scales different segments of a video stream using different scaling functions. The aspect ratio converter can scale one region of a video frame using a first scaling function and scale another region of a frame of video using a second scaling function, different than the first scaling function.

WO 2007/050817 A3

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US06/41895

A. CLASSIFICATION OF SUBJECT MATTER
 IPC: **H04N 11/20(2006.01),7/01(2006.01),5/46(2006.01)**

 USPC: **348/445,556,557,458**
 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)
 U.S. : 348/445,556,557,458

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 practicable, search terms used)
 EAST

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,534,934 A (Katsumata et al.) 09 July 1996, col. 3, line 55, through col. 8, line 57.	1, 2, 9, 10, 11, 12
A	US 5,537,149 A (Teraoka et al.) 16 July 1996, col. 5, line 55, to col. 12, line 38.	1-20

Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:	"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
"A" document defining the general state of the art which is not considered to be of particular relevance	"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
"E" earlier application or patent published on or after the international filing date	"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
"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)	"&"	document member of the same patent family
"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		

Date of the actual completion of the international search 08 November 2007 (08.11.2007)	Date of mailing of the international search report 19 NOV 2007
--	--

Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201	Authorized officer M. Lee Telephone No. 703-306-0377
---	--