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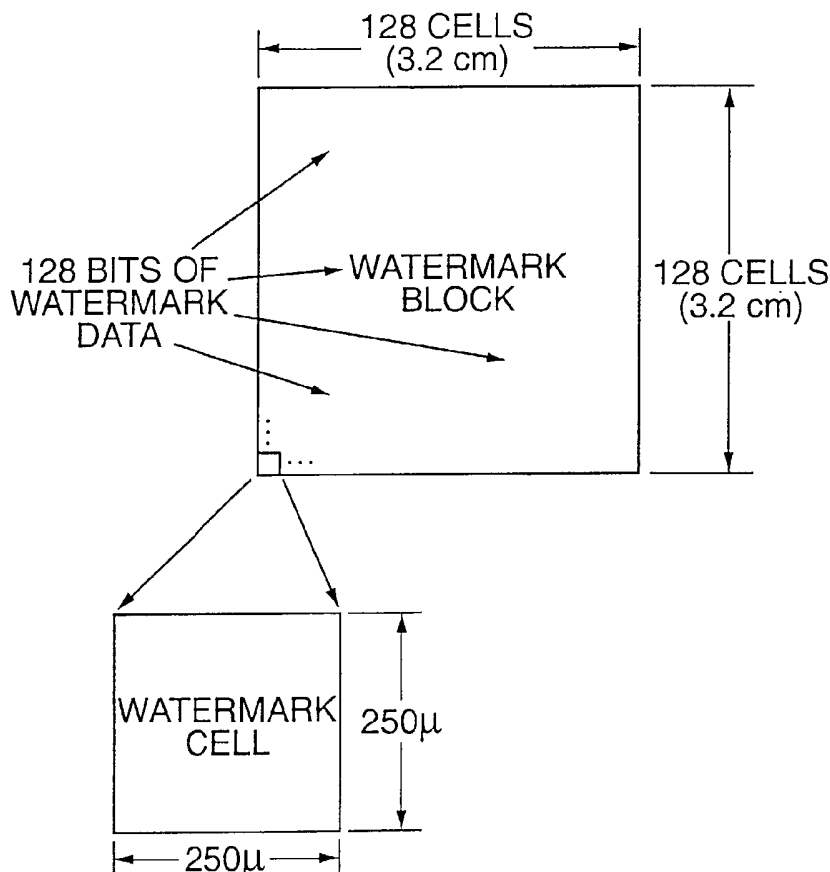
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- (71) Applicant (for all designated States except US): **DIGI-MARC CORPORATION** [US/US]; 19801 SW 72nd Avenue, Suite 250, Tualatin, OR 97062 (US).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): **RHOADS, Geoffrey, B.** [US/US]; 304 S.W. Tualatin Loop, West Linn, OR 97068 (US).
- (74) Agent: **CONWELL, William, Y.**; Klarquist, Sparkman, Campbell, Leigh & Whinston, LLP, One World Trade Center, Suite 1600, 121 SW Salmon Street, Portland, OR 97204 (US).
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(54) Title: DIGITAL WATERMARKS AND METHODS FOR SECURITY DOCUMENTS



(57) Abstract: Security documents (e.g. passports, currency, event tickets) are encoded to convey machine-readable multi-bit binary information (e.g. digital watermark), usually in a manner not alerting human viewers that such information is present. The documents can be provided with overt or subliminal calibration patterns. When a document incorporating such a pattern is scanned, the pattern facilitates detection of the encoded information notwithstanding possible scaling or rotation of the scan data.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER IPC(6) : G06K 9/00 US CL : 382/232, 235, 238, 239, 240, 241, 242, 243, 244, 248, 251 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. : 382/232, 235, 238, 239, 240, 241, 242, 243, 244, 248, 251 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)		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y,P	US 5,790,697 A (MUNRO et al) 04 August 1998, col. 8, lines 1-68.	1-19
Y	US 5,636,292 A (RHOADS) 03 June 1997, col. 3, lines 1-68.	1-19
Y,P	US 5,905,810 A (JONES et al) 18 May 1999, col. 2, lines 25-68.	1-19
Y	US 5,416,307 A (DANEK et al) 16 May 1995, col. 2, lines 12-30.	1-19
Y,P	US 5,790,693 A (GRAVES et al) 04 August 1998, col. 1, lines 34-68.	1-19
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> 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 "B" earlier document 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		"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 "A" document member of the same patent family
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Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230		Authorized officer LEO BOUDREAU <i>Joni Hill</i> Telephone No. (703) 308-7595