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 60/996,948 12 December 2007 (12.12.2007) US
 61/071,468 30 April 2008 (30.04.2008) US
 61/071,487 1 May 2008 (01.05.2008) US</p> <p>(71) Applicant (<i>for all designated States except US</i>): DENS-BITS TECHNOLOGIES LTD. [IL/IL]; Building 30, Flr 3, Matam Industrial Park, P.O.Box 15111, 31015 Haifa (IL).</p> <p>(72) Inventors; and</p> <p>(75) Inventors/Applicants (<i>for US only</i>): WEINGARTEN, Hanan [IL/IL]; Hayarden 2, 46377 Herzliya (IL). STERIN, Eli [IL/IL]; 16/1 Hahermon Street, 20692 Yoqneam-ilit (IL). KANTER, Ofir, Avraham [IL/IL]; 10/1 HaHermon Street, 20692 Yoqneam-ilit (IL).</p> <p>(74) Agent: PEARL COHEN ZEDEK LATZER; 5 Shenkar Street, P.O. Box 12704, Herzlia 46733 (IL).</p> | <p>(81) Designated States (<i>unless otherwise indicated, for every kind of national protection available</i>): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, 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, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.</p> <p>(84) Designated States (<i>unless otherwise indicated, for every kind of regional protection available</i>): 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, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).</p> <p>Published:
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(54) Title: CHIEN-SEARCH SYSTEM EMPLOYING A CLOCK-GATING SCHEME TO SAVE POWER FOR ERROR CORRECTION DECODER AND OTHER APPLICATIONS

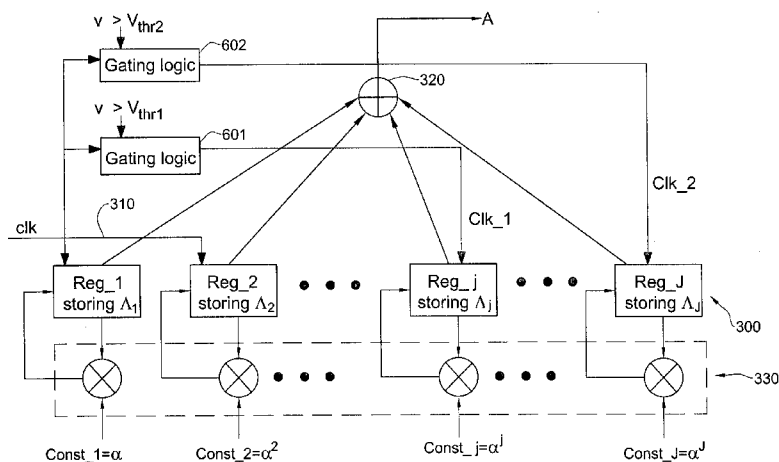


FIG. 6B

(57) Abstract: Chien search apparatus operative to evaluate an error locator polynomial having a known rank and including a sequence of terms for each element in a finite field whose elements correspond respectively to bits in each of a stream of data blocks to be decoded, the apparatus comprising a sequence of functional units each operative to compute a corresponding term in the sequence of terms included in the error locator polynomial, each term having a degree; and a power saving unit operative to deactivate at least one individual functional unit from among the sequence of functional units, the individual functional unit being operative, when active, to compute a term whose degree exceeds the rank.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/IL 08/01235

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - H03M 13/00 (2009.01)

USPC - 714/784

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)

USPC: 714/784

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
714/755, 746, 759, 782, 7785; 707/101; 708/492 (view search terms below)

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

PubWEST (PGPB, USPT, USOC, EPAB, JPAB); DialogPRO; Google (incl. Patents, Scholar)

Search Terms Used: Chien, Reed Solomon, error locator polynomial, subset, degree, nested, clock(s/ing), gat(e/s/ing)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,905,740 A (WILLIAMSON) 18 May 1999 (18.05.1999) entire document, especially	1, 3-7, 9-11
-	Abstract; Col 1, ln 17-31; Col 2, ln 46-77; Col 3, ln 45 to Col 4, ln 29; Col 5, ln 1 to Col 6, ln 62;	-----
Y	Col 9, ln 18-44; Col 12, ln 24 to Col 17, ln 5; Claims 12, 15, 16, 18, 19	2, 8, 12
Y	US 6,119,262 A (CHANG et al.) 12 September 2000 (12.09.2000) entire document, especially	2, 8, 12
	Abstract; Col 1, ln 34-37; Col 3, ln 33-39, 46-57; Col 7, ln 35 to Col 8, ln 38	
A	US 4,584,686 A (FRITZE) 22 April 1986 (22.04.1986) entire document	1-12
A	US 4,998,010 A (CHANDLER et al.) 05 March 1991 (05.03.1991) entire document	1-12

☐ Further documents are listed in the continuation of Box C.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

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"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

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