

(51) International Patent Classification:
G10L 19/00 (2006.01)

(21) International Application Number:

PCT/EP2011/066118

(22) International Filing Date:

16 September 2011 (16.09.2011)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

10178035.1 21 September 2010 (21.09.2010) EP

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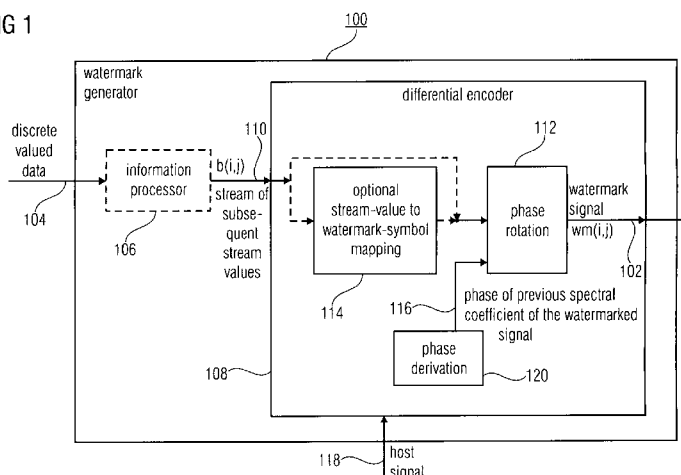
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Pullach (DE).(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ,
CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO,
DZ, EC, EE, EG, ES, FI, 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, QA, RO, RS, RU,
RW, 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, RS, SE, SI, SK,
SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

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(54) Title: WATERMARK GENERATOR, WATERMARK DECODER, METHOD FOR PROVIDING A WATERMARKED
SIGNAL BASED ON DISCRETE VALUED DATA AND METHOD FOR PROVIDING DISCRETE VALUED DATA IN DE-
PENDENCE ON A WATERMARKED SIGNAL

FIG 1



(57) Abstract: A watermark generator for providing a watermark signal as a sequence of subsequent watermark coefficients based on a stream of subsequent stream values representing discrete valued data comprises a differential encoder. The differential encoder is configured to apply a phase rotation to a current stream value of the stream values representing the discrete valued data or to a current watermark symbol, the current watermark symbol corresponding to a current stream value of the stream values representing the discrete valued data, to obtain a current watermark coefficient of the watermark signal. The differential encoder is configured to derive a phase of a previous spectral coefficient of a watermarked signal which is a combination of the host signal and the watermark signal. The differential encoder is further configured to provide the watermark signal such that a phase angle of the phase rotation applied to the current stream value or the current watermark symbol is dependent on the phase of the previous spectral coefficient of the watermarked signal.

WO 2012/038344 A1



Published:

— *with international search report (Art. 21(3))*