



(43) International Publication Date
27 February 2014 (27.02.2014)

(51) International Patent Classification:
H04L 27/18 (2006.01)

(21) International Application Number:
PCT/GB2013/052235

(22) International Filing Date:
23 August 2013 (23.08.2013)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
1215114.8 24 August 2012 (24.08.2012) GB

(71) Applicant: PHASOR SOLUTIONS LIMITED [GB/GB];
The Elms Courtyard, Bromesberrow, Ledbury HR8 1RZ (GB).

(72) Inventor: MAYO, Richard, Hammond; The Elms Courtyard, Bromesberrow, Ledbury HR8 1RZ (GB).

(74) Agent: TAYLOR, David; Stratagem IPM Limited, Fosters Wing, Anstey Hall, Maris Lane, Trumpington, Cambridge Cambridgeshire CB2 9LG (GB).

(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, BN, 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, 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, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, 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, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, 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, KM, 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:
17 July 2014

WO 2014/030016 A3

(54) Title: PHASE OFFSET DETECTION AND CORRECTION OF A NOISY ANALOGUE SIGNAL

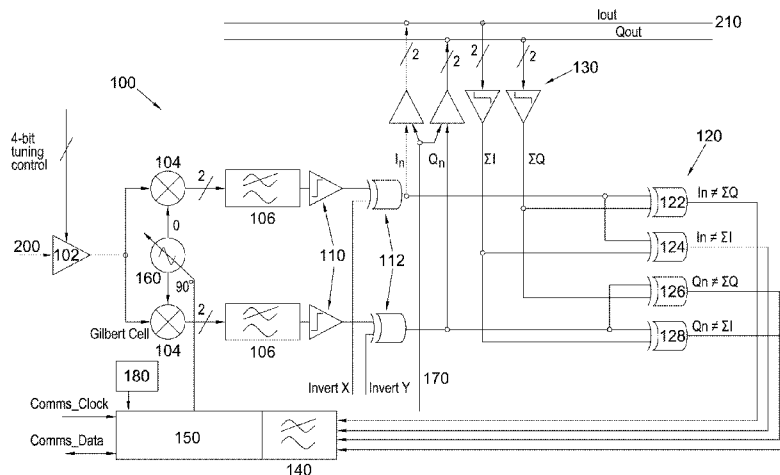


Fig. 1

(57) Abstract: A device is provided for correlating at least one noisy analogue signal which is one of a plurality of signals obtained by a plurality of receivers. The device comprises a 1-bit quantisation element to which the noisy signal is supplied; a comparator configured to compare the quantised signal with a reference signal which is a consensus signal obtained by averaging data from the plurality of receivers; and an up/down counter that is configured to be incremented by a subset of the comparison signal.

INTERNATIONAL SEARCH REPORT

International application No
PCT/GB2013/052235

A. CLASSIFICATION OF SUBJECT MATTER
 INV. H04L27/18
 ADD.
 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)
 H04L

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)
 EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 553 083 B1 (KAWAI HISASHI [JP]) 22 April 2003 (2003-04-22) abstract figure 1 column 8, line 16 - column 14, line 22	1-17
A	EP 1 703 662 A1 (RICOH KK [JP]) 20 September 2006 (2006-09-20) abstract figures 20, 23 paragraphs [0168] - [0171], [0176]	1-17

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	"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
"E" earlier application or patent but published on or after the international filing date	"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
"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)	"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
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"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 13 May 2014	Date of mailing of the international search report 26/05/2014
--	--

Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Xu, Yuhuan
--	--------------------------------------

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/GB2013/052235

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6553083	B1	JP H11313117 A US 6553083 B1	09-11-1999 22-04-2003
EP 1703662	A1	EP 1703662 A1 JP 4676792 B2 JP 2006262165 A US 2006227916 A1	20-09-2006 27-04-2011 28-09-2006 12-10-2006