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- (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,

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(54) **Title:** SELECTIVE-SAMPLING RECEIVER

(57) **Abstract:** A receiver that selectively samples a received signal in order to suppress an interference component of the signal while recovering a desired component. The selective sampling may be accomplished by low cost, low complex analog or digital circuitry. The receiver includes a first input that receives a first signal, including a desired signal component and an interference signal component and a second input that receives a second signal including the interference component only. The first and second signals are then provided to the sampling circuitry. First, the phase of the interference component of the both the first and second signals is aligned. Next, the points in a wave cycle that the second signal is at a power minimum are detected. Finally, first signal is sampled close to the point when the second signal is at the power minimum to recover the desired signal component and suppress the interference component.



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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2012/047724**A. CLASSIFICATION OF SUBJECT MATTER*****H04B 1/10(2006.01)i, H04L 25/40(2006.01)i, H04L 27/00(2006.01)i***

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)

H04B 1/10; H04M 1/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

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

eKOMPASS(KIPO internal) & Keywords: noise, multiple data stream,

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 7139393 B1 (MURASE) 21 November 2006 See abstract and columns 5, 6.	1-8,21
X	US 2006-0079290 A1 (SETO et al.) 13 April 2006	9, 10, 12, 16, 19
A	See paragraphs 20, 21.	11, 13, 14, 15, 17, 18, 20

☐ 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

"E" earlier application or patent but 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 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

"&" document member of the same patent family

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 7139393 B1	21.11.2006	CN 1279556 A0 EP 1065653 A2 JP 2001-016057 A KR 10-0378648 B1 SG87895A1	10.01.2001 03.01.2001 19.01.2001 31.03.2003 16.04.2002
US 2006-0079290 A1	13.04.2006	CN 1819485 A EP 1085678 A2 JP 2001-094491 A KR 2001-0050422 A TW 481952 A	16.08.2006 21.03.2001 06.04.2001 15.06.2001 01.04.2002