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(54) Title: SELECTIVE-SAMPLING RECEIVER

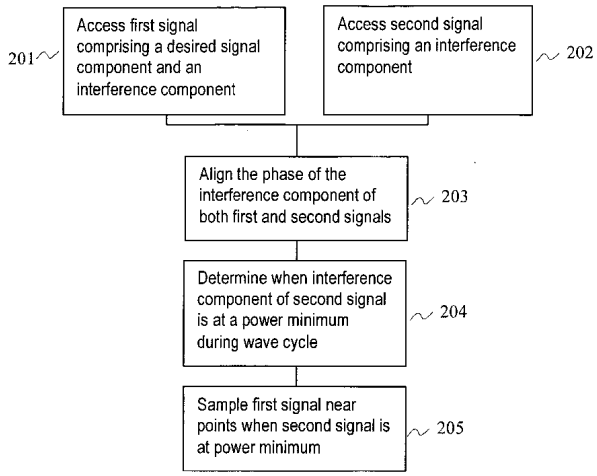



Figure 2

(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 (201), including a desired signal component and an interference signal component and a second input that receives a second signal (202) 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 (203). Next, the points in a wave cycle that the second signal is at a power minimum are detected (204). Finally, first signal is sampled close to the point when the second signal is at the power minimum (205) to recover the desired signal component and suppress the interference component.

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# INTERNATIONAL SEARCH REPORT

International application No.
PCT/US05/26049

A. CLASSIFICATION OF SUBJECT MATTER
IPC: **G01S 7/36**( 2006.01),**7/40**( 2006.01)

USPC: 342/16,159,194,162
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. : 342/16, 159, 194, 162

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)
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|---|---|---|
| A | US 4584710 A (HANSEN) 22 April 1986 (22.04.1986), see Abstract for coherent receiver. | 1-23 |
| A | US 4972430 A (CANTWELL) 20 November 1990 (20.11.1990), see Abstract for receiver and zero-crossing detection. | 1-23 |

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:

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| Date of the actual completion of the international search | Date of mailing of the international search report |
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