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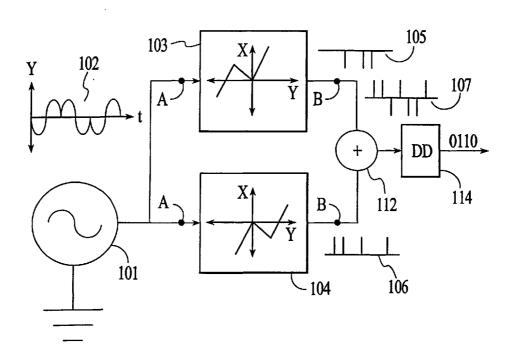
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[Continued on next page]

(54) Title: DEMODULATION OF PSK SIGNALS



(57) Abstract: Methods and apparatus for detecting phase shift keying (PSK) signals, using circuitry having nonlinear dynamics characteristics are disclosed. A receiver circuit can be implemented using a simple tunnel diode or using an op-amp to provide dynamic characteristics comprising an unstable region bounded by a first and second stable region. The approach is able to decode one information symbol represented by one cycle of the PSK signal. Performance enhancements by clipping and weighted pulse counting method are also disclosed.

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#### INTERNATIONAL SEARCH REPORT

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# A. CLASSIFICATION OF SUBJECT MATTER IPC 7 H04L27/233

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)  $IPC \ 7 \ H04L$ 

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 practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC, COMPENDEX

C. DOCUMENT	S CONSIDERED TO	BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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Α	column 2, line 61 -column 5, line 40	31-41,45 3,17-19, 30,42-44
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P,X	US 2001/020907 A1 (LYE KIN ET AL) 13 September 2001 (2001-09-13) paragraph '0021! paragraph '0050! - paragraph '0055! figures 1,4,5	1-45
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X Further documents are listed in the continuation of box C.	χ Patent family members are listed in annex.
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Date of the actual completion of the international search  28 February 2003	Date of mailing of the international search report  12/03/2003
Name and mailing address of the ISA  European Patent Office, P.B. 5818 Patentlaan 2  NL - 2280 HV Rijswijk  Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  Fax: (+31-70) 340-3016	Authorized officer  Marselli, M

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	page 3, line 18 -page 4, line 16 page 5, line 1 -page 6, line 2 page 9, line 12 -page 10, line 10 figures 1B,2,3,8B	44,45

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