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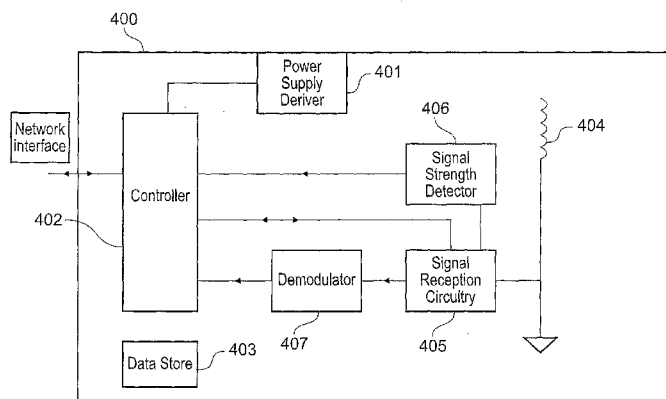
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: LOCATION INFORMATION SYSTEM



(57) Abstract: There is described a receiver, comprising: a radio -frequency receiver including frequency converter circuitry, and a frequency estimator configured to analyse a radio -frequency signal received by said radio frequency receiver to provide an estimated value for the carrier frequency of said received signal, and provide said estimated value to said frequency converter circuitry. The frequency converter circuitry is operative in dependence on said estimated value to convert said received signal to a predetermined frequency.

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# INTERNATIONAL SEARCH REPORT

International application No  
PCT/GB2006/004223

**A. CLASSIFICATION OF SUBJECT MATTER**  
INV. G01S5/02

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)  
G01R G01S H03J

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

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X  Y	US 2003/021365 A1 (MIN JONATHAN S [US] ET AL) 30 January 2003 (2003-01-30)  abstract; figure 9  paragraph [0107] - paragraph [0109] paragraph [0152] paragraph [0155] paragraph [0158] - paragraph [0161]	1-3, 6, 10-14, 17, 38 15, 16, 20, 22, 23, 37
X  Y	US 2004/218699 A1 (CARSELLO STEPHEN R [US]) 4 November 2004 (2004-11-04)  abstract; figures 3, 7 paragraph [0040] - paragraph [0041] paragraph [0049] paragraph [0082]	1-4, 6, 38  5

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

\* Special categories of cited documents :

<p>*A* document defining the general state of the art which is not considered to be of particular relevance</p> <p>*E* earlier document but published on or after the international filing date</p> <p>*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)</p> <p>*O* document referring to an oral disclosure, use, exhibition or other means</p> <p>*P* document published prior to the international filing date but later than the priority date claimed</p>	<p>*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</p> <p>*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</p> <p>*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.</p> <p>* &amp; * document member of the same patent family</p>
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Date of the actual completion of the International search	Date of mailing of the international search report
4 June 2007	14/06/2007

Name and mailing address of the ISA/ European Patent Office, P.E. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer  <p style="text-align: center; font-weight: bold;">Niemeijer, Reint</p>
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## INTERNATIONAL SEARCH REPORT

International application No

PCT/GB2006/004223

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2003/231728 A1 (PHANG PIAO CHUN [SG] ET AL) 18 December 2003 (2003-12-18) paragraph [0033] - paragraph [0036]; figure 3 -----	1-3,10, 38
X	US 6 002 721 A (SAID AHMED M [US] ET AL) 14 December 1999 (1999-12-14) abstract; figure 3 column 4, line 20 - line 59 -----	1-3,38
X	US 2003/002597 A1 (TALWALKAR SUMIT A [US] ET AL) 2 January 2003 (2003-01-02) abstract; figure 3 paragraph [0002] paragraph [0021] -----	1-3,38
Y	US 4 695 790 A (MATHIS RONALD F [US]) 22 September 1987 (1987-09-22) column 2, line 48 - line 63 -----	5
X	GB 2 383 708 A (SYSTEMS ENGINEERING & ASSESSME [GB]) 2 July 2003 (2003-07-02) -----	18,19, 21, 28-36, 39-41
Y	abstract; figures 1,4,5  page 1, line 14 - line 20 page 11, line 18 - page 14, line 5 page 15, line 21 - line 24 page 17, line 22 - page 18, line 21 -----	15,16, 20, 22-25,37
Y	CA 2 200 670 A1 (PARKERVISION INC [US]) 21 September 1998 (1998-09-21) abstract -----	24,25
X	WO 99/65251 A (LEE KWANG HWAN [KR]) 16 December 1999 (1999-12-16)  abstract; figure 1 page 6, line 13 - page 7, line 23 page 9, line 1 - line 3 -----	18,19, 21,26, 39,40
X	US 5 003 317 A (GRAY DONALD R [US] ET AL) 26 March 1991 (1991-03-26)  abstract; figure 1 column 2, line 58 - column 3, line 15 column 3, line 48 - line 67 column 7, line 10 - line 17 -----	18,19, 21,26, 28,39-41

**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/GB2006/004223

## Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:  
see FURTHER INFORMATION sheet PCT/ISA/210
  
3.  Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
  
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
  
3.  As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-14,17,38

Signal verification using preamble  
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2. claims: 15,16,18-37,39-41

Locating system  
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## INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/GB2006/004223

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
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US 2004218699	A1	04-11-2004	CN 1792071 A EP 1623546 A2 WO 2004100423 A2	21-06-2006 08-02-2006 18-11-2004
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