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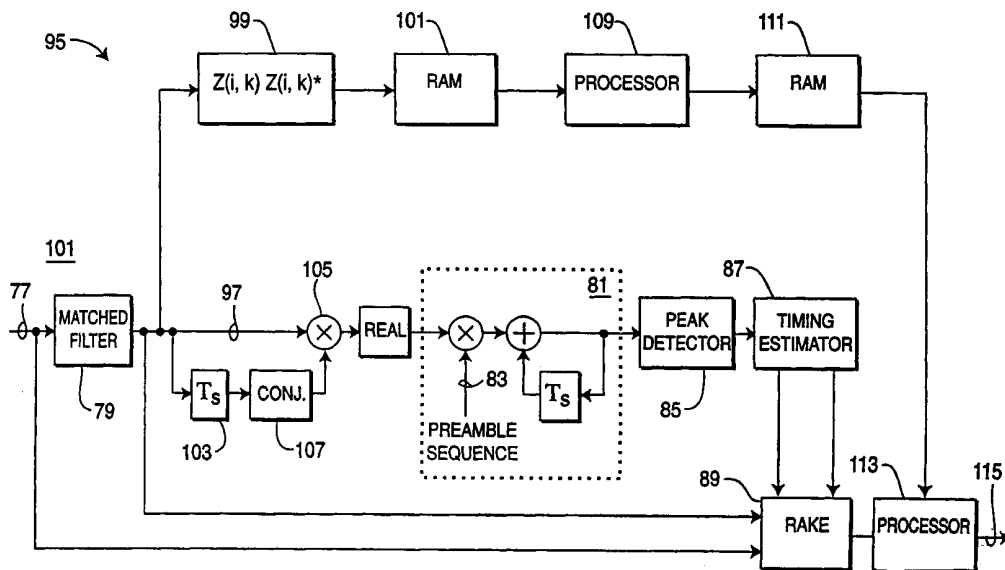
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[Continued on next page]

(54) Title: RANDOM ACCESS CHANNEL PREAMBLE DETECTION



(57) Abstract: The present invention relates to a detector that detects a transmitted digital signature using the energy output from a matched filter. The energies are tabulated according to an anticipated signature pattern for variable transmission distances. The tabulation accounts for expected round trip transmission delays and allows processing of the accumulated symbols to derive a correct signature whether coherent or non-coherent signature coding is used and multiple Doppler channels are present.



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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.*

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 99/29504

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 H04B1/707 H04J13/00

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 H04J H04L H04B

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 378 417 A (AGILIS CORP) 18 July 1990 (1990-07-18) column 6, line 1 -column 7, line 5 ---	1-8
A	GERANIOTIS E A ET AL: "Performance of noncoherent direct-sequence spread-spectrum communications over specular multipath fading channels" IEEE TRANSACTIONS ON COMMUNICATIONS, MARCH 1986, USA, vol. COM-34, no. 3, pages 219-226, XP002140478 ISSN: 0090-6778 abstract page 687, left-hand column, line 1 -right-hand column, line 2 page 688, left-hand column, line 1 - line 41 --- -/--	1-8

Further documents are listed in the continuation of box C. Patent family members are listed in 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>"&" document member of the same patent family</p>
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Date of the actual completion of the international search 29 September 2000	Date of mailing of the international search report 12. 10. 2000
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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 Larcinese, A
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INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 99/29504

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 696 762 A (OHLSON JOHN ET AL) 9 December 1997 (1997-12-09) column 1, line 57 - line 63 column 2, line 18 - line 49 column 4, line 30 -column 5, line 49 ---	9-16
A	WO 98 49859 A (QUALCOMM INC) 5 November 1998 (1998-11-05) page 2, line 11 -page 3, line 5 page 6, line 6 - line 36 -----	9-16

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 99/29504

Box I Observations where certain claims were found unsearchable (Continuation of item 1 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:

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 II Observations where unity of invention is lacking (Continuation of item 2 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: 1-8

Method and system for non-coherently coding a preamble signature in a CDMA system.

2. Claims: 9-16

Method and system for detecting a coded signature over a CDMA interface taking into account range ambiguity in transmission

INTERNATIONAL SEARCH REPORT

Information on patent family members

Int. Patent Application No

PCT/US 99/29504

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0378417 A	18-07-1990	US 4930140 A CA 2007554 A JP 2290344 A	29-05-1990 13-07-1990 30-11-1990
US 5696762 A	09-12-1997	AU 713533 B AU 2533097 A CA 2248647 A EP 0883936 A WO 9736383 A	02-12-1999 17-10-1997 02-10-1997 16-12-1998 02-10-1997
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