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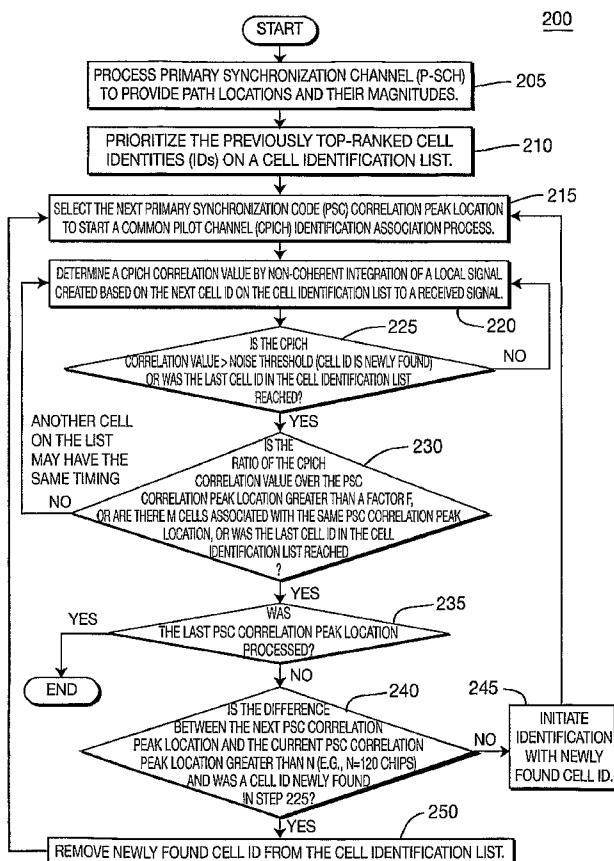
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[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR PERFORMING A POWER EFFICIENT CELL SEARCH IN A MULTI-CELL WIRELESS COMMUNICATION SYSTEM



(57) Abstract: A method and apparatus for performing a power efficient cell search in a multi-cell wireless communication system are disclosed. A wireless transmit/receive unit (WTRU) having a memory that stores a cell identification list of prioritized previously top-ranked cell identities (IDs) is used to perform the cell search. A primary synchronization code (PSC) correlation peak location on a received signal is selected. A common pilot channel (CPICH) correlation value is determined by non-coherent integration of a local signal created based on a first cell ID on the cell identification list to the received signal. If the CPICH correlation value is greater than a noise threshold, thus indicating that the first cell ID is a newly found cell ID, or if a last cell ID in the cell identification list is reached, an additional determination is made as to whether there is more than one cell ID on the list having the same timing.

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FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL,
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INTERNATIONAL SEARCH REPORT

International application No
PCT/US2007/006784A. CLASSIFICATION OF SUBJECT MATTER
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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

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, INSPEC, COMPENDEX

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	WO 2004/114539 A (NIPPON ELECTRIC CO [JP]; ZALIO FILIP [AU]; DOBRICA VASIC [AU]) 29 December 2004 (2004-12-29) page 5, line 20 - page 11, line 3; figures 2,4,5	1,10,11, 21 2-9, 12-20
X A	US 2003/039228 A1 (SHIU DA-SHAN [US] ET AL) 27 February 2003 (2003-02-27) paragraphs [0041] - [0045]; figures 2-4	1,10,11, 21 2-9, 12-20

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

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Information on patent family members

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