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(54) Title: METHOD AND APPARATUS FOR PERFORMING CELL RESELECTION

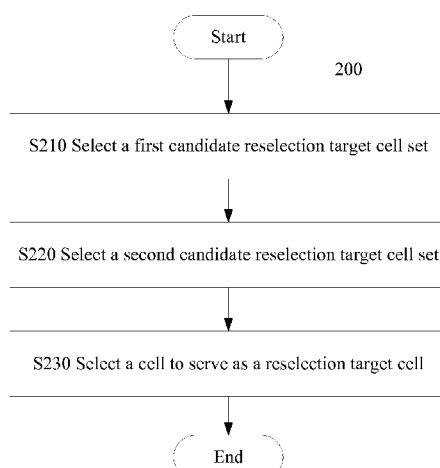


FIG. 2

(57) Abstract: A method and an apparatus for performing cell reselection are provided. According to the embodiments, the method includes: selecting a first candidate reselection target cell set in which a cell reselection measurement result of each cell meets a first criterion; selecting a second candidate reselection target cell set from the first candidate reselection target cell set according to a cell reselection priority level of each cell in the first candidate reselection target cell set; and considering received Multicast Broadcast Single Frequency Network (MBSFN) region identification information of each cell in the second candidate reselection target cell set, and selecting a cell from the second candidate reselection target cell set to serve as a reselection target cell. Therefore, the continuity of receiving of a Multimedia Broadcast Multicast Service (MBMS) service can be improved as much as possible.



INTERNATIONAL SEARCH REPORT

International application No.

PCT/IB2012/000879

A. CLASSIFICATION OF SUBJECT MATTER

H04W36/24(2009.01)i

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: H04W, H04Q, 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 practicable, search terms used)

CNABS, CNTXT, CNKI, VEN: ??select+, cell?, single frequency network, MBSFN, criterion, threshold, standard, priority

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP2077690A2(LG ELECTRONICS INC.) 08 Jul. 2009(08.07.2009) description paragraphs [0120]-[0121]	1,10
A		2-9,11-18
X	CN101675671A(INTERDIGITAL TECHNOLOGY CORP.) 17 Mar. 2010(17.03.2010) description page 15 lines 20-22, claim 11	17,18
A		1-16
A	CN101965742A(ERICSSON TELEFON AB L M) 02 Feb. 2011(02.02.2011) the whole document	1-18

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

* Special categories of cited documents:	"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
"A" document defining the general state of the art which is not considered to be of particular relevance	"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
"E" earlier application or patent but published on or after the international filing date	"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
"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)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search 05 Sep. 2012(05.09.2012)	Date of mailing of the international search report 04 Oct. 2012 (04.10.2012)
Name and mailing address of the ISA/CN The State Intellectual Property Office, the P.R.China 6 Xitucheng Rd., Jimen Bridge, Haidian District, Beijing, China 100088 Facsimile No. 86-10-62019451	Authorized officer CHAO, Lulin Telephone No. (86-10)62411442

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO2010076393A1(NOKIA CORP.) 08 Jul. 2010(08.07.2010) the whole document	1-18
A	US2010197310A1(LG ELECTRONICS INC.) 05 Aug. 2010(05.08.2010) the whole document	1-18

INTERNATIONAL SEARCH REPORT

International application No.

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Box No. 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:
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 No. 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 the extra 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 fees, this Authority did not invite payment of 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 and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☒ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/IB2012/000879

Claim 1 requests for a method for performing cell reselection, comprising: selecting a first candidate reselection target cell set, selecting a second candidate reselection target cell set, considering received MBSFN region identification information of each cell and selecting a cell to serve as a reselection target cell;

Claim 4 requests for a method for performing cell reselection, comprising: selecting a first candidate reselection target cell set, selecting a second candidate reselection target cell set, calculating a sorting value of each cell in the second candidate reselection target cell set, considering received MBSFN region identification information of each cell and selecting a cell to serve as a reselection target cell;

Claim 10 requests for an apparatus for performing cell reselection, comprising: a first selection device, configured to select a first candidate reselection target cell set, a second selection device, configured to select a second candidate reselection target cell set, a third selection device, configured to consider received MBSFN region identification information of each cell and select a cell to serve as a reselection target cell;

Claim 13 requests for an apparatus for performing cell reselection, comprising: a first selection device, configured to select a first candidate reselection target cell set, a second selection device, configured to select a second candidate reselection target cell set, a calculation device, configured to calculate a sorting value of each cell in the second candidate reselection target cell set, a third selection device, configured to consider received MBSFN region identification information of each cell and select a cell to serve as a reselection target cell;

Claim 17 requests for a method for assisting in performing cell reselection, comprising: sending MBSFN region identification information of a neighboring cell;

Claim 18 requests for an apparatus for assisting in performing cell reselection, comprising: a sending device, configured to send MBSFN region identification information of a neighboring cell.

Although claims 17 and 18 have the same technical features, 'MBSFN region identification information' and 'performing cell reselection', with the other independent claims 1, 4, 10 and 13, the features are the common knowledge and well known to the person skilled. The claims 17 and 18 do not have the same or corresponding special technical features with the other independent claims 1, 4, 10 and 13, and they do not belong to a single general inventive concept. Therefore, there is not unity between claims 1, 4, 10, 13 and claims 17, 18, and the present claims do not meet Rule 13.1 and 13.2 PCT.

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
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Patent Documents referred in the Report	Publication Date	Patent Family	Publication Date
EP2077690A2	08.07.2009	US2009181676A1	16.07.2009
		US8000706B2	16.08.2011
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CN101675671A	17.03.2010	WO2008137354A1	13.11.2008
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		RU2009144122A	10.06.2011
CN101965742A	02.02.2011	WO2009113918A1	17.09.2009
WO2010076393A1	08.07.2010	None	
US2010197310A1	05.08.2010	KR20100089026A	11.08.2010