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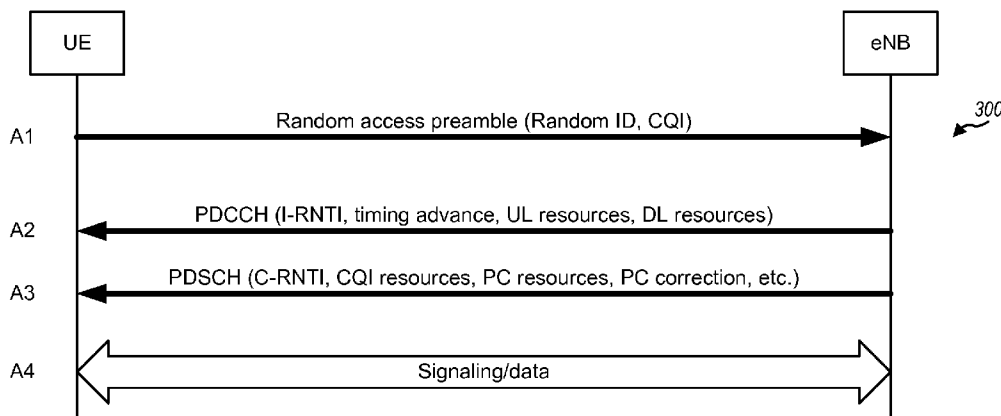
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Declarations under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR RANDOM ACCESS IN AN ORTHOGONAL MULTIPLE-ACCESS COMMUNICATION SYSTEM



(57) Abstract: Techniques for accessing a wireless communication system are described. A user equipment (UE) sends a random access preamble for system access. The random access preamble may include a random identifier (ID), a channel quality indicator (CQI), etc. The UE may randomly select the random ID or may be assigned this random ID. The UE receives a random access response from a base station. The random access response may include control channel resources (e.g., CQI and PC resources), uplink resources, and/or control information (e.g., timing advance and PC correction) for the UE. The random access response may be sent in two parts using two messages. A first message may be sent on a control channel and may include identification information and possibly other information. A second message may be sent on a shared data channel and may include remaining information for the random access response.

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— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))* — *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

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INTERNATIONAL SEARCH REPORT

International application No

PCT/US2007/076439

A. CLASSIFICATION OF SUBJECT MATTER
INV. H04Q7/38

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)
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 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	<p>3RD GENERATION PARTNERSHIP PROJECT: "Physical layer aspects for evolved Universal Terrestrial Radio Access (UTRA) (Release 7)" 3GPP TR 25.814 V 7.0.0, 15 June 2006 (2006-06-15), pages 1-114, XP002481722 Sophia Antipolis</p> <p>page 74, line 1 - page 75, line 11 page 79, line 12 - line 22 page 79, line 27 - page 80, line 22 Figs. 9.1.2.1.1.2-1, 9.1.2.1.1.3-1, 9.1.2.1.1.3-1</p> <p style="text-align: center;">----- -/--</p>	<p>1,2, 4-10,12, 13,15, 16,18, 19, 21-25, 27-29, 31,32, 45-57</p>

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"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)

"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

"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

"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

"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.

"&" document member of the same patent family

Date of the actual completion of the international search

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Name and mailing address of the ISA/

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INTERNATIONAL SEARCH REPORT

International application No

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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.
X	<p>MOTOROLA: "LTE Random Access Procedure" 3GPP TSG-RAN WG2#53, [Online] vol. R2-061463, 8 May 2006 (2006-05-08), - 12 May 2006 (2006-05-12) pages 1-4, XP007905045 Shanghai, China Retrieved from the Internet: URL:http://www.3gpp.org/ftp/tsg_ran/WG2_RL 2/TSGR2_53/Documents/> [retrieved on 2008-06-27] page 1, line 14 - page 2, line 1 Fig. on page 1</p>	<p>1,9,12, 15,18</p>
X	<p>MOTOROLA: "Random Access Procedure" 3GPP RAN1 LTE ADHOC, [Online] vol. R1-061708, 8 May 2006 (2006-05-08), - 12 May 2006 (2006-05-12) pages 1-2, XP007905046 Cannes, France Retrieved from the Internet: URL:http://www.3gpp.org/ftp/tsg_ran/WG1_RL 1/TSGR1_AH/LTE_AH_June-06/Docs/> [retrieved on 2008-06-27] page 2, line 3 - line 20 figures 1,2</p>	<p>1,9,12, 15,18</p>
A	<p>NTT DOCOMO ET AL: "Random Access Transmission in E-UTRA Uplink" 3GPP TSG-RAN WG1 LTE AD HOC MEETING,, [Online] 23 January 2006 (2006-01-23), - 25 January 2006 (2006-01-25) pages 1-8, XP007905047 Helsinki, Finland Retrieved from the Internet: URL:http://www.3gpp.org/ftp/tsg_ran/WG1_RL 1/TSGR1_AH/LTE_AH_January-06/Docs/> [retrieved on 2008-06-27] the whole document</p>	<p>1,2, 4-10,12, 13,15, 16,18, 19, 21-25, 27-29, 31,32, 45-57</p>
X	<p>TEXAS INSTRUMENTS: "Random Access usage for RRC state transitions and mobility support" 3GPP DRAFT; R2-060852, 3RD GENERATION PARTNERSHIP PROJECT (3GPP), MOBILE COMPETENCE CENTRE ; 650, ROUTE DES LUCIOLES ; F-06921 SOPHIA-ANTIPOLIS CEDEX ; FRANCE, vol. tsg_ran\WG2_RL2\TSGR2_52\Documents\Joint_R 1_R2, no. Athens, Greece; 20060327, 20 March 2006 (2006-03-20), XP050131002 page 1, line 24 - line 26 page 3, line 3 - line 11</p>	<p>34,36, 38,39, 41-43</p>
Y	<p>----- -/--</p>	<p>35,37, 40,44</p>

INTERNATIONAL SEARCH REPORT

International application No

PCT/US2007/076439

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2004/028020 A1 (FREDERIKSEN FRANK [DK] ET AL FREDERIKSEN FRANK [DK] ET AL) 12 February 2004 (2004-02-12) paragraph [0094] - paragraph [0097]	35, 37, 40, 44
A	WO 01/47289 A (SIEMENS AG [DE]; OESTREICH STEFAN [DE]; PURAT MARCUS [DE]; SOMMER VOLK) 28 June 2001 (2001-06-28) abstract page 2, line 26 - line 32 page 5, line 11 - line 16 figures 1,3	34-44
A	WO 99/01002 A (NOKIA TELECOMMUNICATIONS OY [FI]; HAATAJA KARI [FI]; HUTTUNEN KARI [FI]) 7 January 1999 (1999-01-07) abstract page 1, line 3 - line 10 page 1, line 19 - line 30 page 2, line 16 - line 28 page 5, line 8 - page 7, line 5 figures 1-4	34-44
A	EP 1 009 184 A (LG ELECTRONICS INC [KR]) 14 June 2000 (2000-06-14) abstract paragraph [0011] - paragraph [0012] paragraph [0020] - paragraph [0021] claims 1-3 figures 2,3	34-44
A	US 2005/186959 A1 (VIALEN JUKKA [FI] ET AL) 25 August 2005 (2005-08-25) abstract paragraph [0027] paragraph [0029] paragraph [0043] paragraph [0052] figures 1,2	34-44

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2007/076439

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 additional sheet

1. As all required additional search fees were timely paid by the applicant, this international search report covers allsearchable claims.

2. As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.

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.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

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

1. claims: 1-33, 45-57

Reception of a first message for a random access response on a control channel for a shared data channel and reception of a second message for the random access response on a shared data channel.

2. claims: 34-44

A Cyclic Redundancy Check, CRC, masked with a Cell Radio Network Temporary Identifier, C-RNTI assigned to a UE.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/US2007/076439

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2004028020 A1	12-02-2004	US 2008123684 A1	29-05-2008
WO 0147289 A	28-06-2001	AU 3359901 A DE 19962264 A1	03-07-2001 05-07-2001
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