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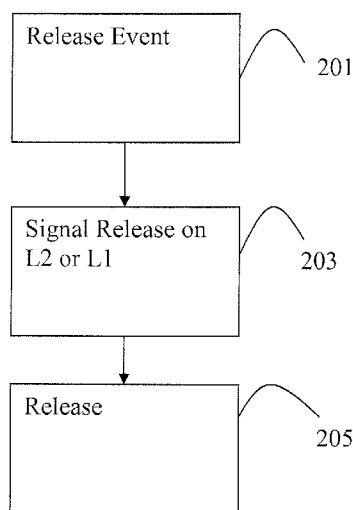
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61/015,316 20 December 2007 (20.12.2007) US
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[Continued on next page]

(54) **Title:** RELEASING COMMON ENHANCED DEDICATED CHANNEL, E-DCH, RADIO RESOURCES



(57) **Abstract:** In a method and a system for managing resources in a cellular radio system comprising an Enhanced Dedicated Channel, the release of the common E-DCH resources is signaled between UE and NodeB using existing signaling fields on Layer 2 (L2) or Layer 1 (L1). These signaling fields are already in use in CELL_DCH, but their interpretation is changed for users in CELL_FACH. In another embodiment, a grant on E-AGCH indicating INACTIVE on all HARQ processes is sent as a release command to the UE. In still another embodiment, the common E-DCH resource is released upon expiry of a release timer.

Fig. 3



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(BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG). **Published:**

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))
- of inventorship (Rule 4.17(iv))

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(88) Date of publication of the international search report:
11 September 2009

INTERNATIONAL SEARCH REPORT

International application No
PCT/SE2008/051133

A. CLASSIFICATION OF SUBJECT MATTER
INV. H04W72/12

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)
H04W 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, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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Y	WO 2007/089797 A (INTERDIGITAL TECH CORP [US]; TERRY STEPHEN E [US]; WANG JIN [US]; CHAN) 9 August 2007 (2007-08-09) paragraphs [0009], [0034], [0066], [0069], [0070] -----	1-7, 12-18
Y	US 2006/215604 A1 (MUECKENHEIM JENS [DE] ET AL) 28 September 2006 (2006-09-28) paragraphs [0035] - [0058] figures 3-5 -----	2-4, 13-15
Y	US 2002/141331 A1 (MATE AMIT [FI] ET AL) 3 October 2002 (2002-10-03) paragraphs [0062], [0065], [0067] ----- -/--	5,16

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 <p style="text-align: center;">17 July 2009</p>	Date of mailing of the international search report <p style="text-align: center;">24/07/2009</p>
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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, Fax: (+31-70) 340-3016	Authorized officer <p style="text-align: center;">Moreno-Solana, S</p>
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INTERNATIONAL SEARCH REPORT

International application No

PCT/SE2008/051133

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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Y	US 2007/049309 A1 (PAN JUNG-LIN [US] ET AL) 1 March 2007 (2007-03-01) abstract paragraphs [0007], [0011], [0034] -----	8,19
Y	M. WIMMER - NSN: "Status Report for WI to TSG - Work Item: Enhanced Uplink for CELL_FACH State in FDD"[Online] no. RP-070825, 27 November 2007 (2007-11-27), pages 1-4, XP002514178 TSG-RAN meeting #37; Cancun, Mexico, Nov. 27th-30th 2007 Retrieved from the Internet: URL:http://www.3gpp.org/ftp/tsg_ran/TSG_RAN/TSGR_38/Docs/> [retrieved on 2009-02-09] the whole document -----	9-11, 20-22
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INTERNATIONAL SEARCH REPORT

International application No

PCT/SE2008/051133

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	ERICSSON: "Resource release of common E-DCH in CELL_FACH" 3GPP DRAFT; R2-080044, 3RD GENERATION PARTNERSHIP PROJECT (3GPP), MOBILE COMPETENCE CENTRE ; 650, ROUTE DES LUCIOLES ; F-06921 SOPHIA-ANTIPOLIS CEDEX ; FRANCE, vol. tsg_ran\WG2_RL2\TSGR2_60bis\Docs, no. Sevilla, Spain; 20080114, 7 January 2008 (2008-01-07), XP050137944 the whole document	8,19
P,X	INFINEON: "CELL_FACH E-DCH scheduling simplifications" 3GPP DRAFT; R2-080894, 3RD GENERATION PARTNERSHIP PROJECT (3GPP), MOBILE COMPETENCE CENTRE ; 650, ROUTE DES LUCIOLES ; F-06921 SOPHIA-ANTIPOLIS CEDEX ; FRANCE, vol. tsg_ran\WG2_RL2\TSGR2_61\Docs, no. Sorrento, Italy; 20080211, 4 February 2008 (2008-02-04), XP050138703 the whole document	8,19
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INTERNATIONAL SEARCH REPORT

International application No.
PCT/SE2008/051133

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: 1-7 and 12-18

Signalling to a radio base station the release of a common Enhanced Dedicated Channel, E-DCH, resource.

2. claim: 8 and 19

Sending a grant on E-AGCH indicating INACTIVE on all HARQ processes as a release command to a User Equipment, UE.

3. claims: 9-11 and 20-22

Releasing a common E-DCH resource upon expiry of a release timer.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/SE2008/051133

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