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[Continued on next page]

(54) Title: METHOD FOR EFFECTIVELY TRANSMITTING CONTROL SIGNAL IN WIRELESS COMMUNICATION SYSTEM

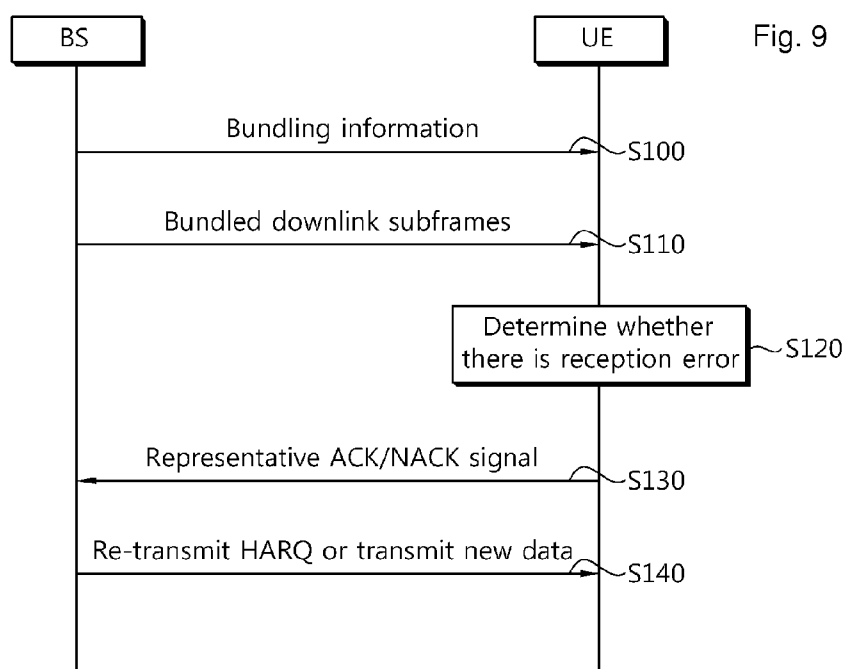


Fig. 9

(57) Abstract: A method of performing HARQ performed by a user equipment (UE) is provided. The method includes receiving a bundling indicator which indicates the number of bundled downlink subframes, determining whether at least one bundled downlink subframe is missed by comparing the bundling indicator with the number of detected bundled downlink subframes, generating a representative ACK/NACK signal when no bundled downlink subframe is missed, and transmitting the representative ACK/NACK signal on an uplink channel. Recovery capability is maximized and the packet loss is reduced in such a situation that less number of ACK/NACK signals are fed back than that of downlink packets.

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## INTERNATIONAL SEARCH REPORT

International application No.  
**PCT/KR2009/001287****A. CLASSIFICATION OF SUBJECT MATTER****H04L 1/18(2006.01)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 8 H04L, H01L, H04B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean Utility models and applications for Utility Models since 1975

Japanese Utility Models and applications for Utility Models since 1975

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

KOMPASS(KIPO internal) "HARQ, ACK, NACK, subframe, bundle"

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category* | Citation of document, with indication, where appropriate, of the relevant passages                                               | Relevant to claim No. |
|-----------|----------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| A         | WO 2007-129872 A1 (SAMSUNG ELECTRONICS CO., LTD.) 15 November 2007<br>See abstract; page 19, line 18 - page 21, line 5; claim 1. | 1-18                  |
| A         | KR 10-2007-0105287 A (SAMSUNG ELECTRONICS CO., LTD.) 30 October 2007<br>See claims 1-4; figures 3, 4.                            | 1-18                  |
| A         | JP 2005-136597 A (MATSUSHITA ELECTRIC IND CO., LTD.) 26 May 2005<br>See abstract; claim 1.                                       | 1-18                  |



Further documents are listed in the continuation of Box C.



See patent family annex.

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"&amp;" document member of the same patent family

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**INTERNATIONAL SEARCH REPORT**

Information on patent family members

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| Patent document<br>cited in search report | Publication<br>date | Patent family<br>member(s)                                                       | Publication<br>date                                  |
|-------------------------------------------|---------------------|----------------------------------------------------------------------------------|------------------------------------------------------|
| WO 2007-129872 A1                         | 15.11.2007          | EP 1855411 A2<br>KR 10-2007-0109313 A<br>US 2007-0300120 A1                      | 14.11.2007<br>15.11.2007<br>27.12.2007               |
| KR 10-2007-0105287 A                      | 30.10.2007          | EP 1852994 A1<br>KR 10-2007-0108460 A<br>US 2008-0002688 A1<br>WO 2007-123377 A1 | 07.11.2007<br>12.11.2007<br>03.01.2008<br>01.11.2007 |
| JP 2005-136597 A                          | 26.05.2005          | None                                                                             |                                                      |