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(54) **DATA TRANSMISSION METHOD AND USER EQUIPMENT FOR THE SAME**

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H04L 12/56 (2006.01)
H04J 1/16 (2006.01)
(52) **U.S. Cl.** **370/278**; 370/329; 370/412
(58) **Field of Classification Search** 370/329, 370/412, 278
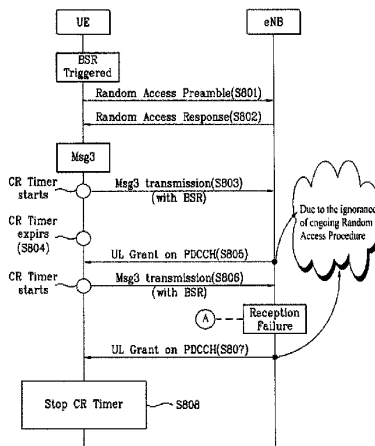See application file for complete search history.

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(57) **ABSTRACT**

A mobile communication technology, and, more particularly, a method for efficiently transmitting data stored in a message **3** (Msg**3**) buffer and a user equipment for the same is disclosed. The method of transmitting data by a user equipment in uplink includes receiving an uplink (UP) Grant signal from a base station on a specific message, determining whether there is data stored in a message **3** (Msg**3**) buffer when receiving the UL Grant signal on the specific message, determining whether the specific message is a random access response message, and transmitting the data stored in the Msg**3** buffer to the base station using the UL Grant signal received on the specific message, if there is data stored in the Msg**3** buffer when receiving the UL Grant signal on the specific message and the specific message is the random access response message.

13 Claims, 10 Drawing Sheets

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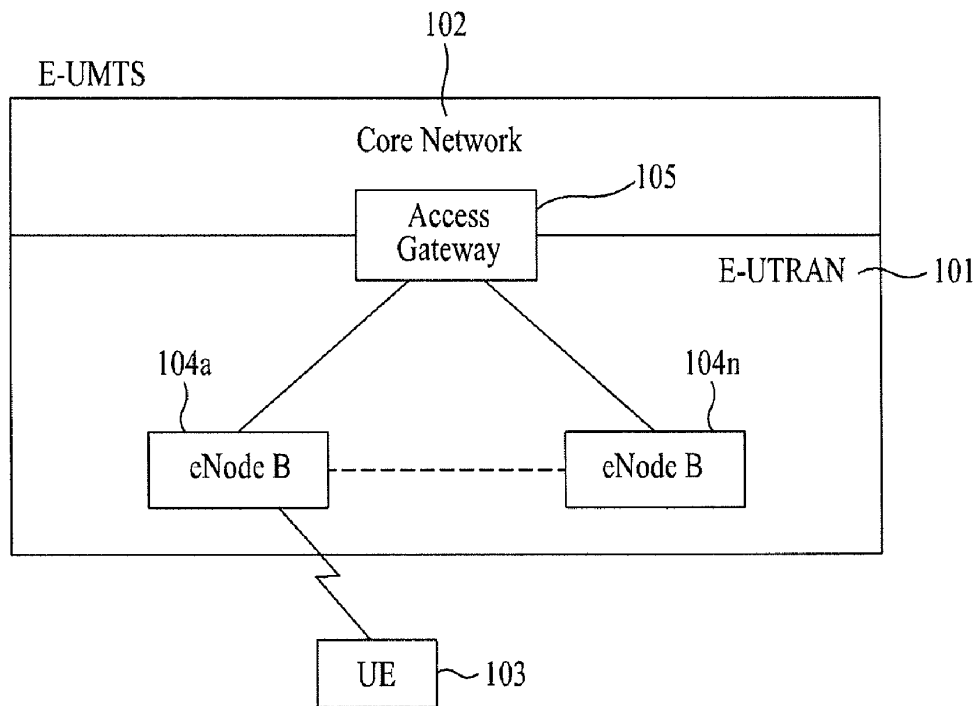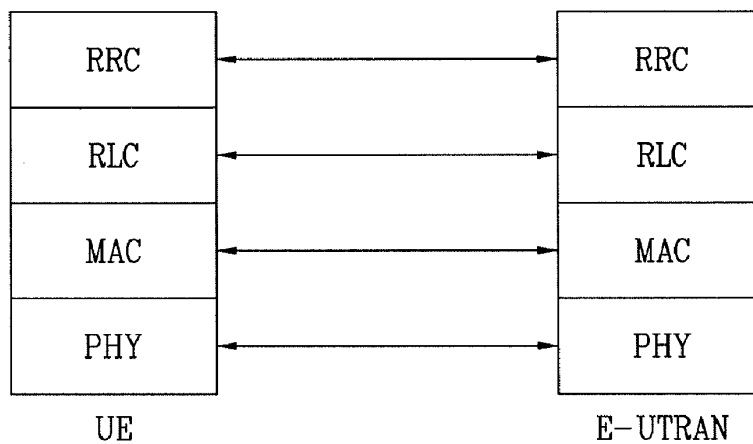
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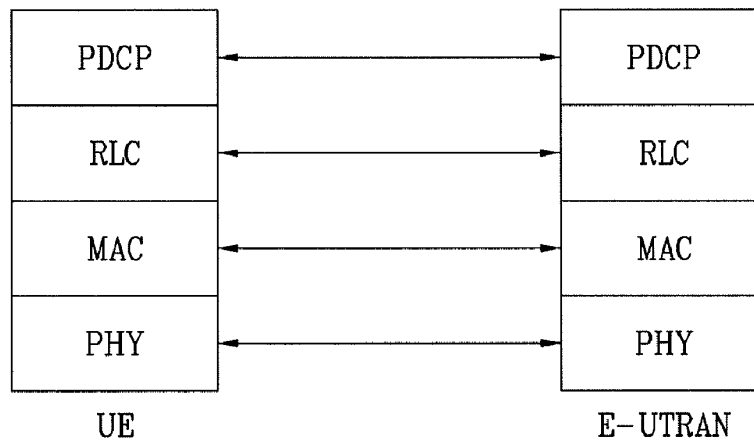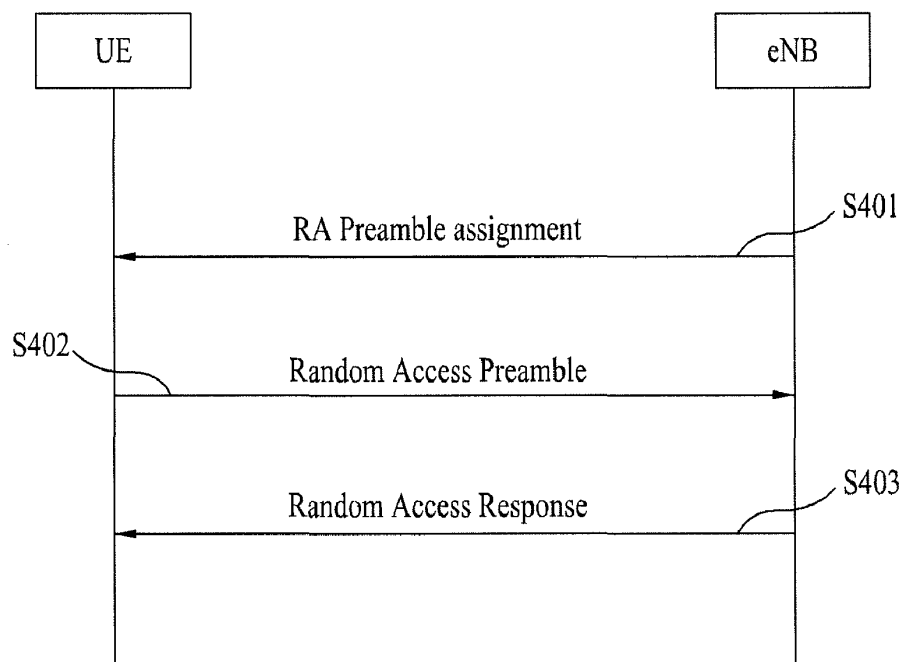
FIG. 1

FIG. 2

FIG. 3

FIG. 4

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