



US 20100098012A1

(19) **United States**

(12) **Patent Application Publication**
Bala et al.

(10) **Pub. No.: US 2010/0098012 A1**
(43) **Pub. Date: Apr. 22, 2010**

(54) **UPLINK CONTROL INFORMATION TRANSMISSION METHODS FOR CARRIER AGGREGATION**

(22) Filed: **Oct. 20, 2009**

Related U.S. Application Data

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(60) Provisional application No. 61/106,847, filed on Oct. 20, 2008, provisional application No. 61/115,351, filed on Nov. 17, 2008, provisional application No. 61/172,127, filed on Apr. 23, 2009, provisional application No. 61/218,782, filed on Jun. 19, 2009.

Publication Classification

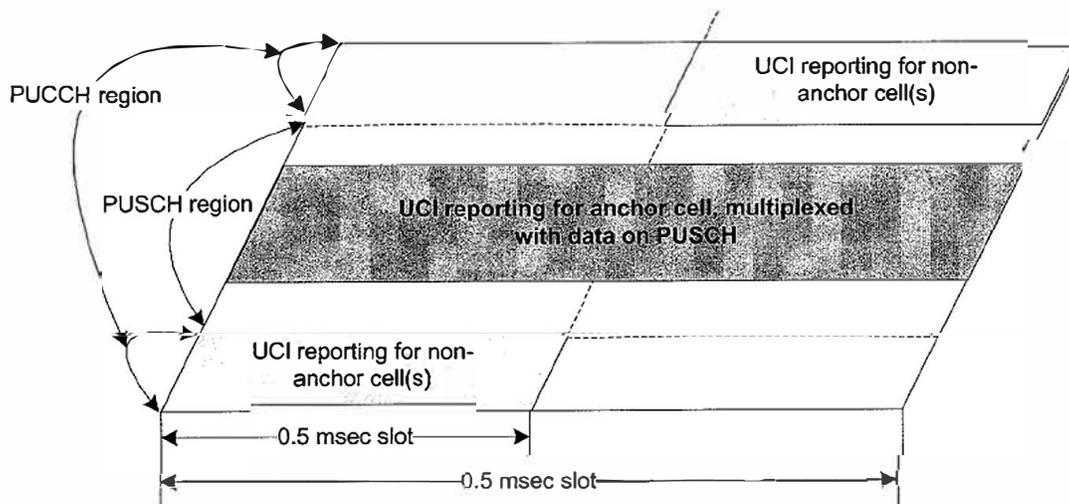
(51) **Int. Cl.**
H04W 72/04 (2009.01)
(52) **U.S. Cl.** **370/329**
(57) **ABSTRACT**

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A method and apparatus for transmitting uplink control information (UCI) for Long Term Evolution-Advanced (LTE-A) using carrier aggregation is disclosed. Methods for UCI transmission in the uplink control channel, uplink shared channel or uplink data channel are disclosed. The methods include transmitting channel quality indicators (CQI), precoding matrix indicators (PMI), rank indicators (RI), hybrid automatic repeat request (HARQ) acknowledgement/non-acknowledgement (ACK/NACK), channel status reports (CQI/PMI/RI), source routing (SR) and sounding reference signals (SRS). In addition, methods for providing flexible configuration in signaling UCI, efficient resource utilization, and support for high volume UCI overhead in LTE-A are disclosed.

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(21) Appl. No.: **12/582,462**



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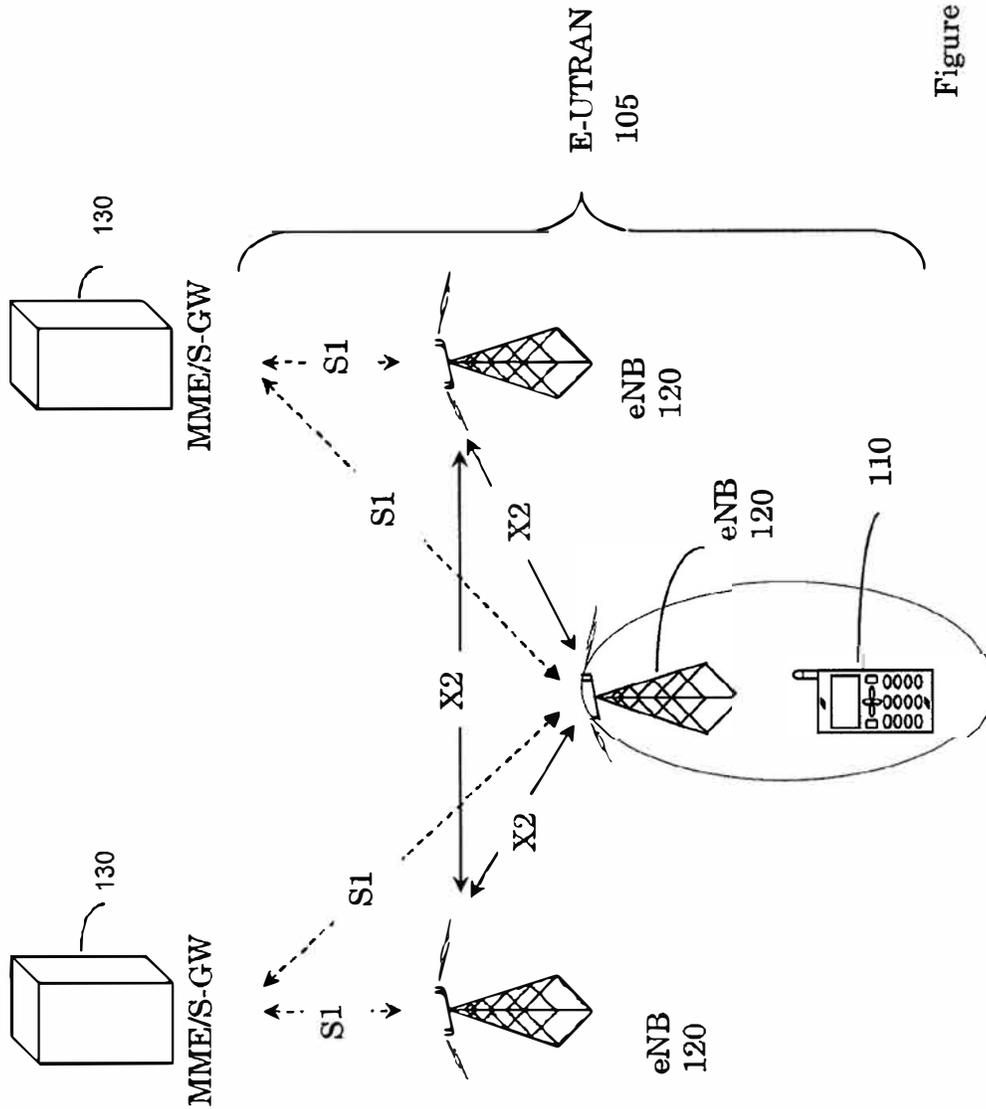
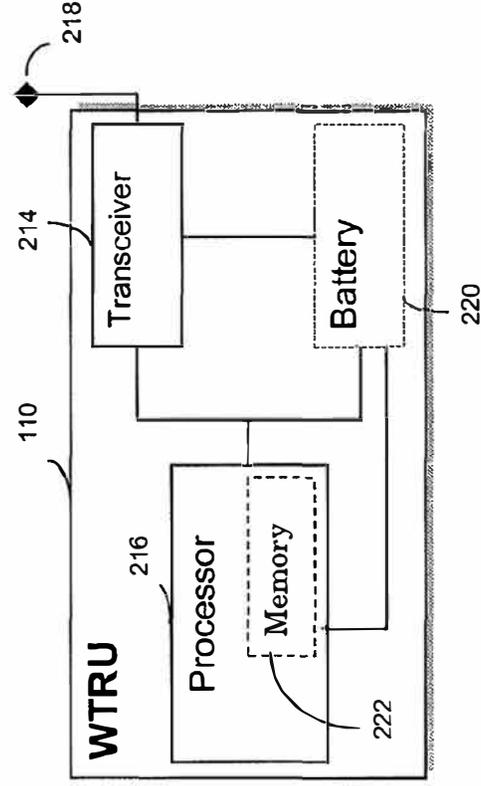
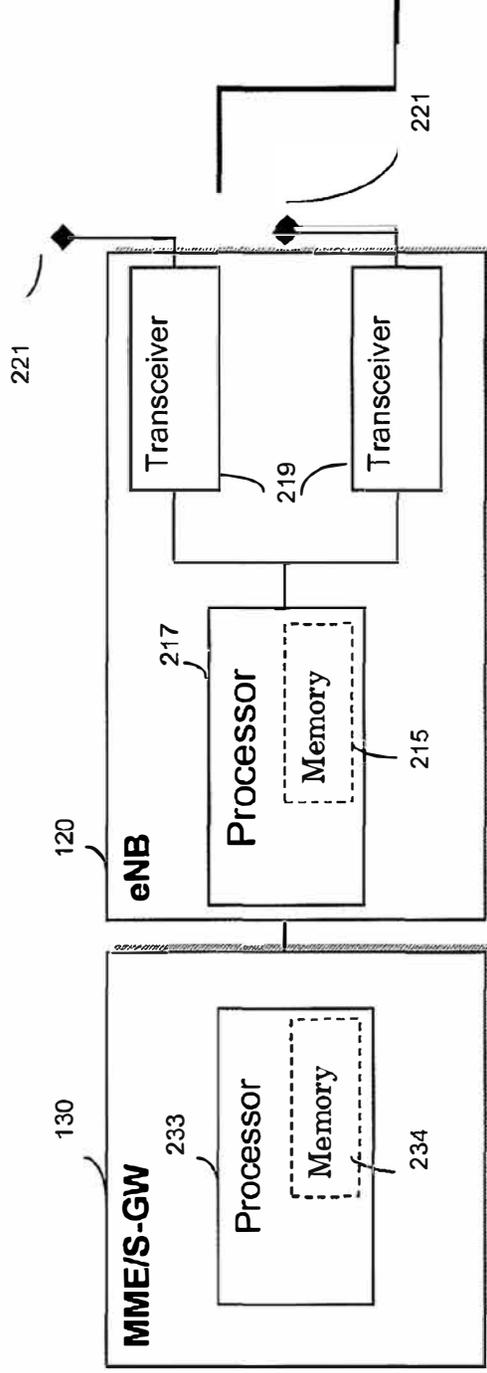


Figure 1



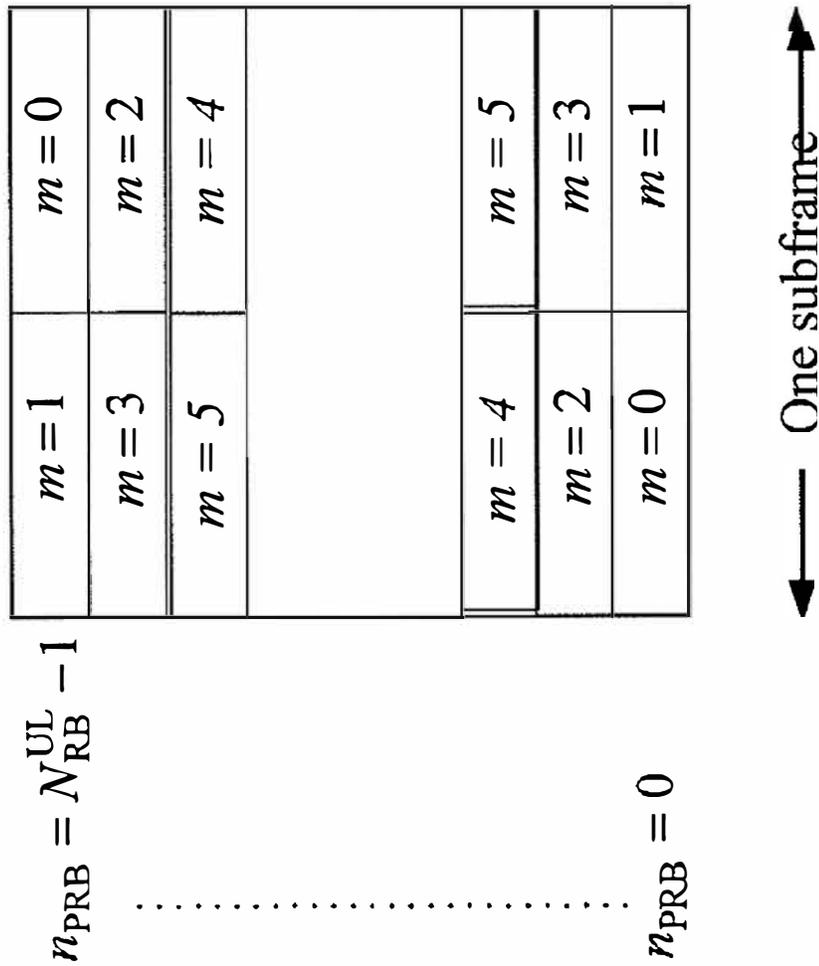


Figure 3

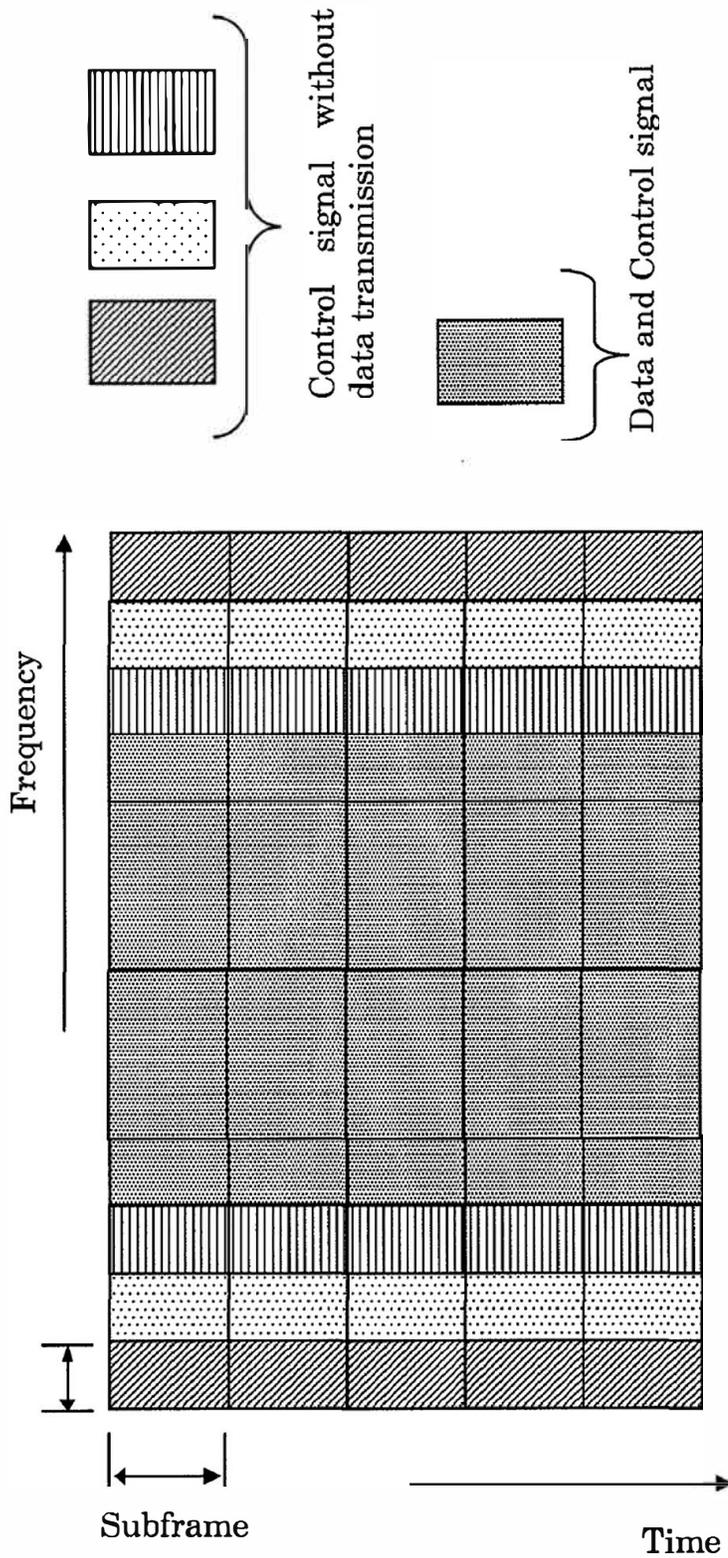


Fig. 4

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