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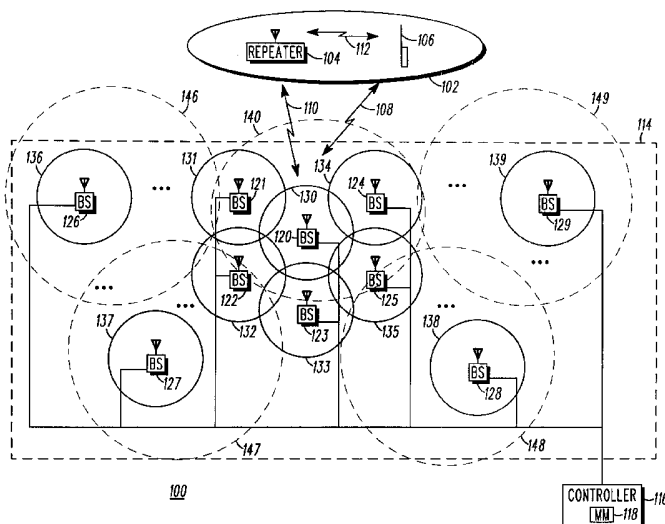
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(54) Title: METHOD AND APPARATUS FOR WIRELESS COMMUNICATION IN A HIGH VELOCITY ENVIRONMENT



(57) Abstract: A communication system (100) transitions from a high velocity mode of operation to a non-high velocity mode of operation based on a movement of a mobile station (106). When the communication system is in a high velocity mode of operation, the communication system promotes pilots from a High Velocity Neighbor Set of the mobile station or a controller (116). When the communication system is in a non-high velocity mode of operation, the communication system promotes pilots from a Neighbor Set of the mobile station or the controller. The communication system may further include a high velocity repeater (104) that, when co-located with the mobile station, is capable of providing a communication link between the mobile station and a radio access network (114) servicing the mobile station.

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— *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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 US CL : 455/436, 442, 444, 11.1

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)
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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 practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y,P --- A,P	US 6,675,013 B1 (GROSS et al) 06 January 2004, see entire document.	15, 21 and 22 ----- 1, 3, 5, 7, 8-10, 12, 13, 18 and 23
Y,P --- A,P	US 2004/0058687/A1 (KIM et al) 25 March 2004, see entire document.	15, 21 and 22 ----- 1, 3, 5, 7, 8-10, 12, 13, 18 and 23
Y,E --- A,E	US 2005/0075110 A1 (POSTI et al) 07 April 2005, see entire document.	15, 21 and 22 ----- 1, 3, 5, 7, 8-10, 12, 13, 18 and 23
A,E	US 2005/0009531/A1 (LINDQUIST et al) 13 January 2005, see entire document.	1-23
A,E	US 2004/0152480 A1 (WILLARS et al) 5 August 2004, see entire document.	1-23
A	US 5,903,840 A (BERTACCHI) 11 May 1999, see entire document.	1-23

Further documents are listed in the continuation of Box C. See patent family annex.

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