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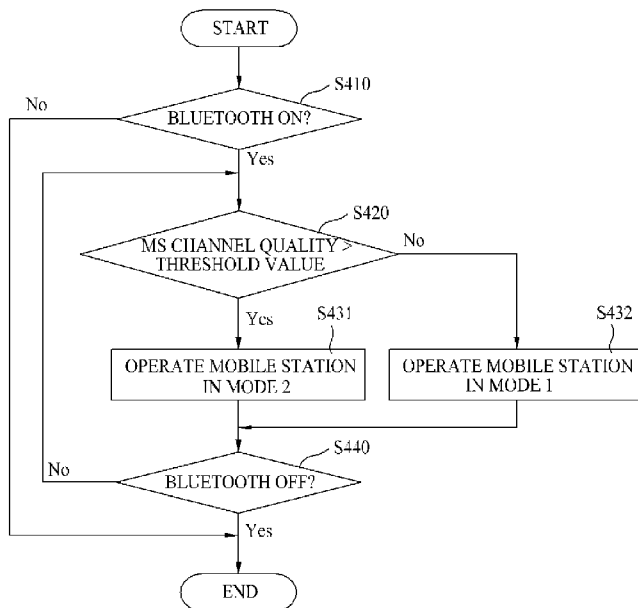
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[Continued on next page]

(54) **Title:** METHOD FOR SUPPORTING COEXISTENCE IN A MOBILE STATION

[Fig. 4]



(57) **Abstract:** A method for supporting coexistence in a mobile station is provided. The method for supporting coexistence in the mobile station includes, at the mobile station, turning on Bluetooth at a start point of a WiMAX downlink subframe, stopping the operation of the Bluetooth if WiMAX channel quality of the mobile station becomes less than a threshold value during the operation of the Bluetooth, and, at the mobile station, turning off the operation of the Bluetooth at the start point of a WiMAX uplink subframe. Accordingly, it is possible to solve fragmentation by minimizing the interruption of the WiMAX transmission/reception and to improve WiMAX downlink throughput by restricting Bluetooth data transmission/reception according to the WiMAX channel quality.

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**B. FIELDS SEARCHED**

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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)

eKIPASS(KIPO internal), IEEEExplore, "bluetooth", "coexistence", "quality"

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2006/0084383 A1 (Ibrahim et al.) 20 Apr. 2006 See the Abstract; Figs. 1-6; paragraphs [0046] - [0054]; Claims 1-35.	1-9
A	US 2007/0232358 A1 (Sherman) 04 Oct. 2007 See the Abstract; paragraphs [0018] - [0028]; Claims 1-21.	1-9
A	US 2005/0276241 A1 (Kamerman et al.) 15 Dec. 2005 See the Abstract; paragraphs [0049] - [0050]; Claims 1-13.	1-9
A	KR 2004-0064823 A (LG ELECTRONICS INC.) 21 Jul. 2004 See the Abstract; Figs. 1-5; Claims 1-3.	1-9

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

\* Special categories of cited documents:

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Information on patent family members

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**PCT/KR2009/000879**

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2006/0084383 A1	20.04.2006	EP 1626541 A2 EP 1626541 A3 US 2006/0030266 A1	15.02.2006 26.07.2006 09.02.2006
US 2007/0232358 A1	04.10.2007	None	
US 2005/0276241 A1	15.12.2005	None	
KR 2004-0064823 A	21.07.2004	None	