



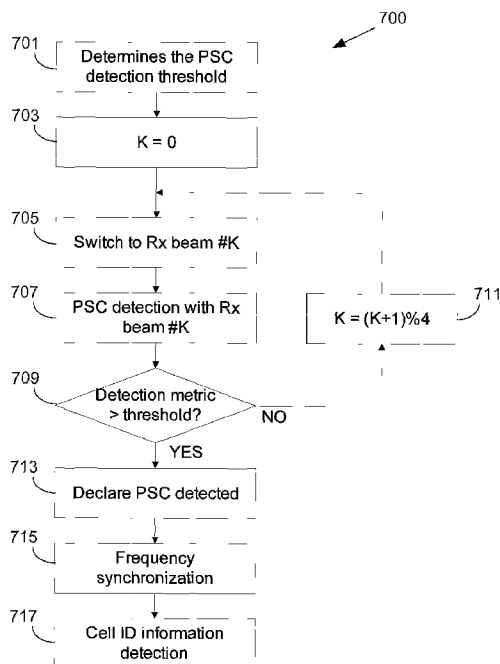
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(54) Title: METHODS AND APPARATUS TO TRANSMIT AND RECEIVE SYNCHRONIZATION SIGNAL AND SYSTEM INFORMATION IN A WIRELESS COMMUNICATION SYSTEM





(57) Abstract: A base station transmits a plurality of primary synchronization channel (PSC) symbols to a mobile station in a slot of a subframe of a frame-based wireless communication system. The base station also transmits a plurality of secondary synchronization channel (SSC) symbols to the mobile station in the slot of the subframe. The mobile station determines a preferred receiver beam based on the plurality of received consecutive PSC symbols.

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| A. CLASSIFICATION OF SUBJECT MATTER | | |
|--|---|--|
| <i>H04J 11/00(2006.01)i, H04B 7/26(2006.01)i</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) H04J 11/00; H04B 7/26 | | |
| 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 Japanese utility models and applications for utility models | | |
| Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) eKOMPASS(KIPO internal) & Keywords: synchronization signal, system information, primary synchronization channel (PSC), secondary synchronization channel (SSC), broadcast control channel (BCH) | | |
| C. DOCUMENTS CONSIDERED TO BE RELEVANT | | |
| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
| A | US 2011-0090860 A1 (IHM, BIN CHUL et al.) 21 April 2011 See the abstract; paragraphs [173]-[193]; figures 21-23. | 1-15 |
| A | US 2010-0110873 A1 (HAN, SEUNG HEE et al.) 06 May 2010 See the abstract; paragraphs [52]-[82]; figures 2-6. | 1-15 |
| A | US 2010-0135257 A1 (HIGUCHI, KENICHI et al.) 03 June 2010 See the abstract; paragraphs [13]-[17]; figures 8-19. | 1-15 |
| A | US 2010-0099408 A1 (HAN, SEUNG HEE et al.) 22 April 2010 See the abstract; claims 16-39; figures 1-19. | 1-15 |
| <input type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex. | | |
| * Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family | | |
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