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(54) Title: SWITCHABLE ANTENNA ELEMENTS FOR A WIRELESS COMMUNICATIONS DEVICE

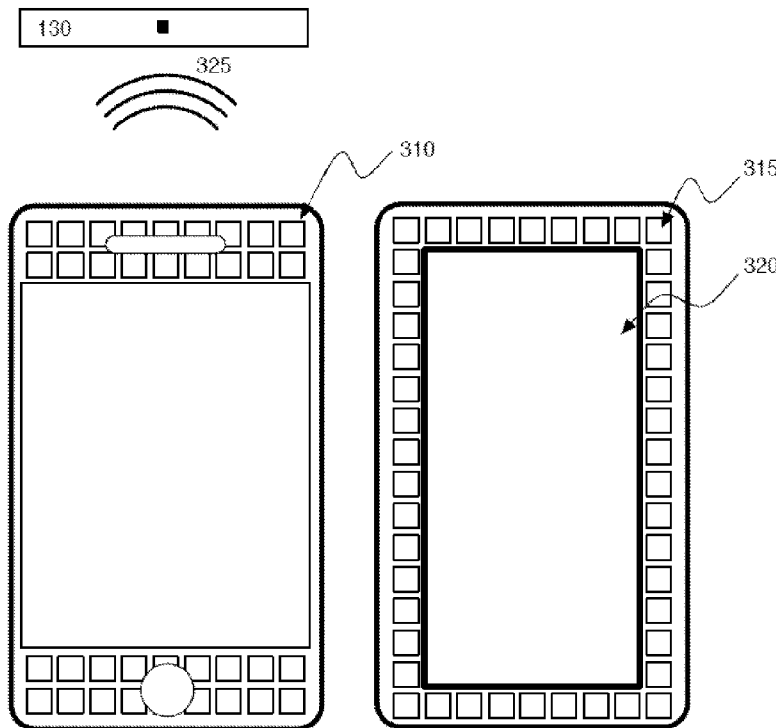


FIG. 3

(57) Abstract: A wireless communications device includes multiple switchable antenna elements that may be used to improve interfacing of the wireless communications device with other devices, such as for interfacing of an RFID-equipped mobile communications device with other RFID devices (e.g., to better ensure power delivery to and/or communication with such other RFID devices) and/or may be used to characterize various aspects of the environment around the wireless communications device, such as for proximity-based functionality.

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A. CLASSIFICATION OF SUBJECT MATTER***H04B 1/40(2006.01)i, H01Q 21/06(2006.01)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)

H04B 1/40; H01Q 3/24; H01F 38/14; G06K 17/00; H04B 5/02

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: RF, antenna, plurality

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|---|-----------------------|
| A | JP 2009-169602 A (NEC TOKIN CORP) 30 July 2009 See abstract, figure 1-6 and paragraphs 24-43. | 1-30 |
| A | US 2011-0109169 A1 (SHIMAMOTO GAKU et al.) 12 May 2011 See abstract, figure 1-6 and paragraphs 20-35. | 1-30 |
| A | JP 2007-305004 A (MITSUBISHI MATERIALS CORP) 22 November 2007 See abstract, figure 1-7 and paragraphs 14-33. | 1-30 |
| A | US 2007-0182660 A1 (WU CHE-MING et al.) 09 August 2007 See abstract, figure 1-3 and paragraphs 19-31. | 1-30 |

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

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Information on patent family members

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| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
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