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(54) Title: RFID SWITCH TAG

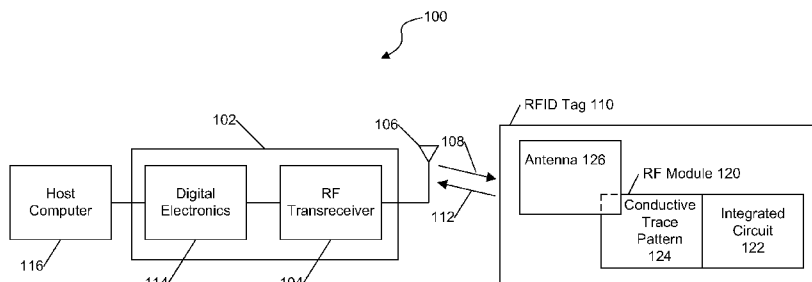


FIG. 1

(57) Abstract: Various embodiments of RFID switch devices are disclosed herein. Such RFID switch devices advantageously enable manual activation/deactivation of the RF module. The RFID switch device may include a RF module with an integrated circuit adapted to ohmically connect to a substantially coplanar conductive trace pattern, as well as booster antenna for extending the operational range of the RFID device. The operational range of the RFID switch device may be extended when a region of the booster antenna overlaps a region of the conductive trace pattern on the RF module via inductive or capacitive coupling. The RFID switch device may further include a visual indicator displaying a first color if the RFID switch device is in an active state and/or a second color if the RFID switch device is in an inactive state.



A. CLASSIFICATION OF SUBJECT MATTER**G06K 19/077(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)

G06K 19/077; G06K 7/01; G08B 13/181; G06K 19/00; G06K 19/06; H04Q 5/22

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: RFID, conductive trace, switch

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2009-0096611 A1 (JONES DONALD EDWARD) 16 April 2009 See abstract, paragraphs [40]-[43] and figures 3-5.	1-32,34-40
A	US 2010-0302012 A1 (ROESNER BRUCE B.) 02 December 2010 See abstract, paragraphs [23],[29] and figures 5A,5B,9.	1-32,34-40
A	US 2003-0132301 A1 (EDWIN JOSEPH SELKER) 17 July 2003 See abstract, paragraphs [16]-[26] and figures 1-6.	1-32,34-40
A	US 2007-0109101 A1 (STEVEN COLBY) 17 May 2007 See abstract, paragraph [92] and figure 4A,4B.	1-32,34-40

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

* Special categories of cited documents:

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* Note: For the claim 13(1), the claim was renumbered by this authority because the claim 13 was found twice.

Claim 13(1) points to a second claim 13.

Claim 13(1) is too unclear to make meaningful search possible because the claim does not meet the requirements of PCT Article 6 as follows: Claim 13(1) is worded in reference to a first and a second booster antennas of claim 7. However, said a first booster antenna and a second booster antenna have not been worded in claim 7.

Claim 33 is missing in this application.

INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2009-0096611 A1	16.04.2009	WO 2009-051639 A1	23.04.2009
US 2010-0302012 A1	02.12.2010	EP 2438551 A1 WO 2010-141451 A1	11.04.2012 09.12.2010
US 2003-0132301 A1	17.07.2003	US 2004-0124248 A1 US 6863220 B2 US 7100835 B2	01.07.2004 08.03.2005 05.09.2006
US 2007-0109101 A1	17.05.2007	US 2006-0187061 A1 US 2006-0250138 A1 US 2006-0267737 A1 US 2007-0200679 A1 US 2007-0200680 A1 US 2007-0200681 A1 US 2007-0200682 A1 US 2007-0200683 A1 US 2007-0200684 A1 US 2008-0217526 A1 US 2010-0026466 A1 US 7196525 B2 US 7719425 B2 US 7924156 B2 WO 2006-107397 A2 WO 2006-107397 A3 WO 2006-122120 A2 WO 2006-122120 A3 WO 2006-122121 A2 WO 2006-122121 A3	24.08.2006 09.11.2006 30.11.2006 30.08.2007 30.08.2007 30.08.2007 30.08.2007 30.08.2007 30.08.2007 30.08.2007 11.09.2008 04.02.2010 27.03.2007 18.05.2010 12.04.2011 12.10.2006 12.10.2006 16.11.2006 16.11.2006 16.11.2006 16.11.2006