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CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO,
DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN,
HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR,
KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME,
MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ,
OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD,
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SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) **Title:** DUAL MODE SERIAL/PARALLEL INTERFACE AND USE THEREOF IN IMPROVED WIRELESS DEVICES AND SWITCHING COMPONENTS

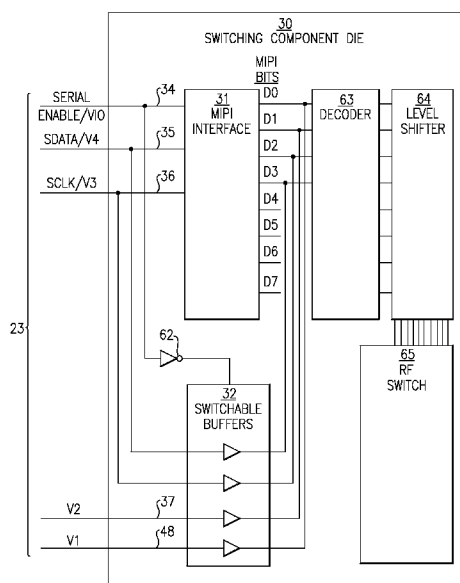


FIG.4

(57) **Abstract:** Systems, methods, and devices for communicating with a serial/parallel interface are described herein. In an aspect, a wireless device includes a transceiver configured to output a plurality of transmission paths, and an antenna configured to output a signal corresponding to at least one of the transmission paths. The wireless device further includes a wireless switching component including a radio-frequency switch configured to selectively connect the antenna to one of the transmission paths, a plurality of signal pins, a serial interface including a plurality of serial inputs electrically coupled to at least one pin of the plurality of signal pins, a parallel interface including a plurality of parallel inputs electrically coupled to at least one pin of the plurality of signal pins, a decoder, and a level shifter configured to control the radio-frequency switch, the at least one pin electrically coupled to both a serial input and a parallel input.



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— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

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A. CLASSIFICATION OF SUBJECT MATTER***H04L 29/10(2006.01)i, H04L 29/12(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)

H04L 29/10; G11C 7/10; G06F 1300; H04B 1/04; G06F 13/12

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: dual interface, serial, parallel, shared pin, decoder, level shifter, antenna, switching component, path, transceiver

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 7533202 B2 (T. NEWMAN) 12 May 2009	1-15
Y	See column 4, line 23, column 6, line 1 - column 9, line 2; claims 1, 12; and figures 1, 2.	16-21
Y	US 7283794 B2 (A. C. MOLNAR et al.) 16 October 2007	16-21
A	See column 7, line 40, column 11, line 66; and figure 3.	1-15
A	US 6845420 B2 (R. A. RESNICK) 18 January 2005	1-21
	See column 2, line 67 - column 3, line 13, column 4, line 22 - column 5, line 12; claims 1, 5; and figures 1-3.	
A	US 7397717 B2 (H. S. CHEN et al.) 8 July 2008	1-21
	See column 4, line 2 - column 5, line 15; claims 1, 6; and figures 4, 5.	



Further documents are listed in the continuation of Box C.



See patent family annex.

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"&" document member of the same patent family

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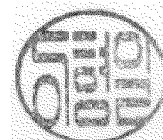
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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 7533202 B2	12.05.2009	AT 379811 T AU 2003-274999 A1 DE 60317816 D1 EP 1552403 A1 EP 1552403 B1 US 2005-0198405 A1 WO 2004-036439 A1	15.12.2007 04.05.2004 10.01.2008 13.07.2005 28.11.2007 08.09.2005 29.04.2004
US 7283794 B2	16.10.2007	EP 1374420 A1 US 2002-0142741 A1 WO 02-080383 A1	02.01.2004 03.10.2002 10.10.2002
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