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[Continued on next page]

(54) Title: SYSTEMS AND METHODS FOR IMPLEMENTING REDUCED POWER STATES

(57) Abstract: In some embodiments, provided is a way for devices to request S0ix (or the like) entry and exit.

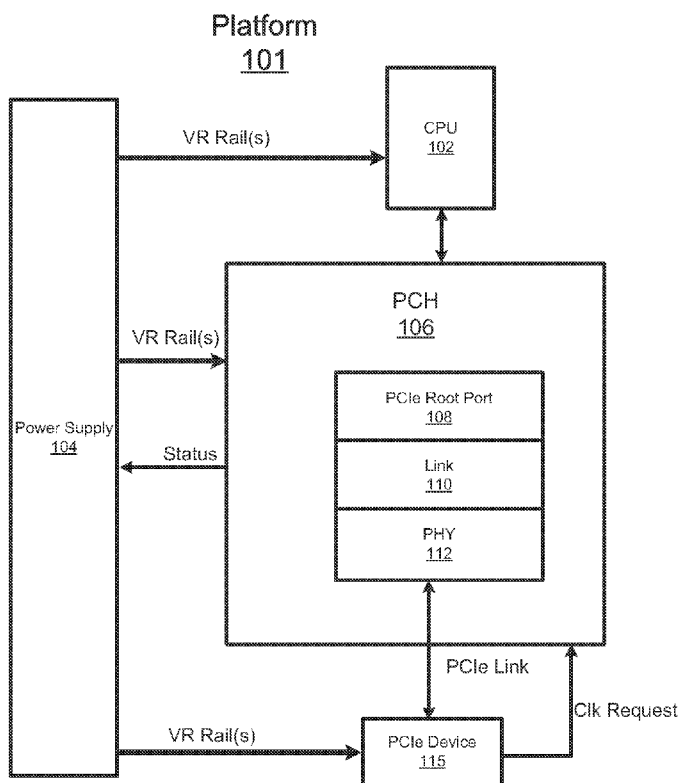


FIG. 1

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MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK,
SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

— *with information concerning incorporation by reference
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A. CLASSIFICATION OF SUBJECT MATTER**G06F 1/32(2006.01)i, G06F 13/14(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)

G06F 1/32; G06F 1/26; G06K 7/06; G06F 13/00

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: PCI express port, clock request node, reduced power mode, CPU, power supply, assert/de-assert clock request node

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2008-0288798 A1 (COOPER BARNES et al.) 20 November 2008 See paras.[0013]-[0021],[0041],[0044]-[0049], and figs.3,5,6.	1-12
A	US 7325733 B2 (HENRY WURZBURG et al.) 05 February 2008 See col.4 line 42-col.6 line 46, and figs.2-3.	1-12
A	US 2006-0149977 A1 (BARNES COOPER) 06 July 2006 See paras.[0023]-[0039], and figs.1-2.	1-12
A	US 2009-0327774 A1 (JEYASEELAN JAYA L. et al.) 31 December 2009 See paras.[0041]-[0042], and fig.3.	1-12

 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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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 2008-0288798 A1	20.11.2008	US 2011-276816 A1 US 7984314 B2	10.11.2011 19.07.2011
US 7325733 B2	05.02.2008	JP 2005-209204 A TW I301245A TW I301245B US 2005-0156038 A1 US 2007-0023499 A1 US 7159766 B2	04.08.2005 21.09.2008 21.09.2008 21.07.2005 01.02.2007 09.01.2007
US 2006-0149977 A1	06.07.2006	CN 101095096 A0 DE 112005003279 T5 WO 2006-074006 A2 WO 2006-074006 A3	26.12.2007 22.11.2007 13.07.2006 08.02.2007
US 2009-0327774 A1	31.12.2009	CN 101615067 A CN 101615067 B DE 102009030544 A1 TW 201015289 A	30.12.2009 05.10.2011 07.01.2010 16.04.2010