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(54) Title: APPARATUS, SYSTEM, AND METHOD FOR TIMING RECOVERY

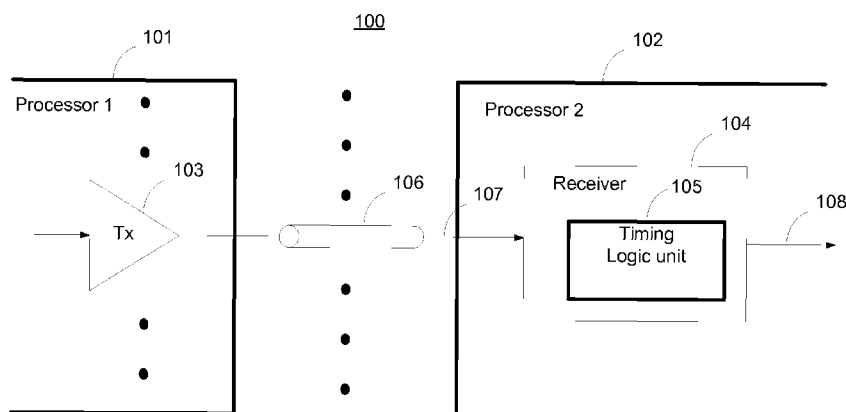


Fig. 1

(57) Abstract: Described herein are an apparatus, system and method for timing recovery in processors by means of a simplified receiver architecture that consumes less power consumption, has lower bit error rate (BER), and higher jitter tolerance. The apparatus comprises a phase interpolator to generate a clock signal; a first integrator to integrate a first portion of a data signal over a duration of a phase of the clock signal; a first sampler to sample the first integrated portion by means of the clock signal; a first circuit to store a first edge sample of the data signal; a second sampler to sample the stored first edge sample by means of the clock signal; and a clock data recovery unit to update the phase interpolator based at least on the sampled first integrated portion and sampled stored first edge sample of the data signal.

A. CLASSIFICATION OF SUBJECT MATTER**G06F 1/04(2006.01)i, G06F 13/14(2006.01)i, G06F 13/38(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 1/04; H03L 7/00; G06K 5/00; G06K 5/04; G06F 13/14; H03L 7/081; G06F 13/36

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: "CLOCK", "SAMPLE", "SIGNAL", "INTEGRATE"

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	KR 10-2007-0026498 A (미크론 테크놀로지, 인코포레이티드) 08 March 2007 See abstract, page 2 line 39 - page 6 line 3 and figure 2	1-20
A	US 7681091 B2 (HAFED MOHAMED M.) 16 March 2010 See abstract, column 5 line 60 - column 13 line 49 and figure 6	1-20
A	US 7721036 B2 (POPLACK MITCHELL G. et al.) 18 May 2010 See abstract, column 2 line 66 - column 15 line 2 and figure 5	1-20
A	US 7747890 B2 (LEE SEONGHOON) 29 June 2010 See abstract, column 4 line 49 - column 7 line 61 and figure 3	1-20



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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Information on patent family members

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