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(71) Applicant (for all designated States except US): MICRON TECHNOLOGY INC. [US/US]; 8000 South Federal Way, Boise, ID 83716-9632 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): CHOI, Joo, S. [KR/US]; 3779 East Immigrant Pass Court, Boise, ID 83716 (US).

(74) Agents: ENG, Kimton et al.; Dorsey & Whitney, LLP, 1420 Fifth Avenue, Suite 3400, Seattle, WA 98101 (US).

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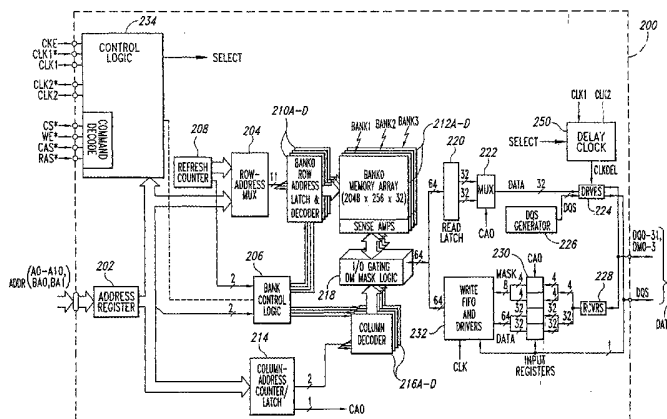
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(54) Title: MULTI-FREQUENCY SYNCHRONIZING CLOCK SIGNAL GENERATOR



(57) Abstract: An apparatus (Fig.2) and method for generating a plurality of synchronizing signals for synchronizing operation of the device in which the apparatus is located, such as in semiconductor memory devices. The apparatus can generate a plurality of synchronizing signals (CLKSYNC) based on a corresponding plurality of input clock signals (CLK ) and select one of the synchronizing signals to be provided as the synchronizing clock signal (CLK DEL). Alternatively, the apparatus can generate a plurality of internal clock signals (CLK1, CLK2). based on an input clock signal (CLK), and generate a corresponding plurality of synchronizing signals from the plurality of internal clock signals. One of the synchronizing signals is selected by the apparatus as the synchronizing clock signal. Alternatively, the apparatus can receive a clock signal, generate a synchronized clock signal therefrom, and generate a synchronizing pulse in response to number of periods of the synchronized clock signal, the number based on a selection signal provided to the apparatus.

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INTERNATIONAL SEARCH REPORT

International application No.

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**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) : G11C 8/00

US CL : 365/194, 233; 327/298, 407

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)

U.S. : 365/194, 233; 327/298, 407

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EAST

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,254,888 A (LEE et al.) 19 October 1993 (19.10.1993), figures 1-2 and related text.	1-2, 17-18, 35-37 and 40

Further documents are listed in the continuation of Box C.

See patent family annex.

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Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US  
Commissioner for Patents  
P.O. Box 1450  
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Facsimile No. (703) 305-3230

Authorized officer

Son L. Mai

Telephone No. 571-272-1626

