

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
28 February 2002 (28.02.2002)

PCT

(10) International Publication Number
WO 02/017323 A3

(51) International Patent Classification⁷: **G11C 7/10**,
G06F 13/28, G11C 7/22

(21) International Application Number: PCT/US01/25957

(22) International Filing Date: 21 August 2001 (21.08.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
09/641,516 21 August 2000 (21.08.2000) US

(71) Applicant: **MICRON TECHNOLOGY, INC.** [US/US];
8000 S. Federal Way, Boise, ID 83707-0006 (US).

(72) Inventors: **KEETH, Brent**; 5077 N. Fifeshire Place,
Boise, ID 83713 (US). **JOHNSON, Brian**; 5977 E.
Gateway Dr., Boise, ID 83716 (US).

(74) Agent: **MINUTOLI, Gianni**; Dickstein Shapiro Morin &
Oshinsky LLP, 2101 L Street NW, Washington, DC 20037-
1526 (US).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

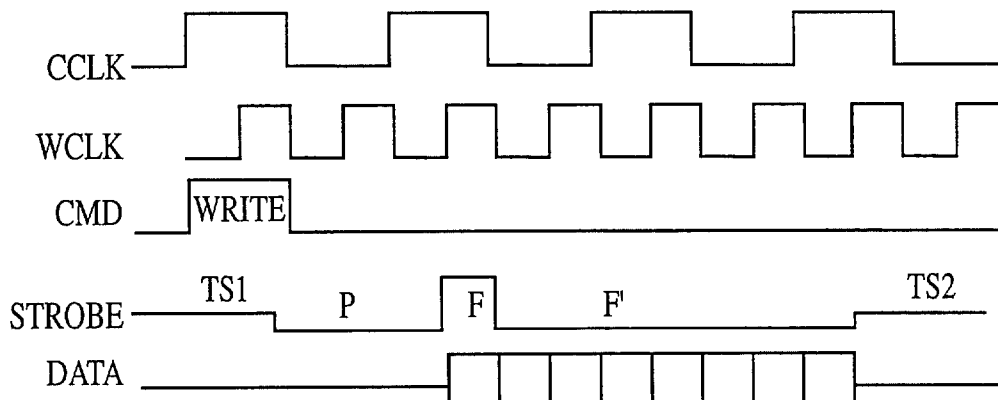
Published:

— with international search report

(88) Date of publication of the international search report:
30 January 2003

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: SYNCHRONIZED WRITE DATA ON A HIGH SPEED MEMORY BUS



(57) **Abstract:** Some synchronous semiconductor memory devices accept a command clock which is buffered and a write clock which is unbuffered. Write command are synchronized to the command clock while the associated write data is synchronized to the write clock. Due to the use of the buffer, an arbitrary phase shift can exist between the command and write clocks. The presence of the phase shift between the two clocks makes it difficult to determine when a memory device should accept write data associated a write command. A synchronous memory device in accordance with the present invention utilizes the unbuffered strobe signal which is normally tristated during writes as a flag to mark the start of write data. A preamble signal may be asserted on the strobe signal line prior to asserting the flag signal in order to simplify flag detection.



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