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Karlquist

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(54) **CIRCUIT AND METHOD FOR ADJUSTING THE CLOCK SKEW IN A COMMUNICATIONS SYSTEM**

5,608,343 A * 3/1997 Ojima et al. 326/93
6,687,844 B1 * 2/2004 Zhang 713/503
2003/0065988 A1 * 4/2003 Karlquist 714/700

(75) Inventor: **Richard K. Karlquist**, Cupertino, CA (US)

FOREIGN PATENT DOCUMENTS

(73) Assignee: **Agilent Technologies, Inc.**, Palo Alto, CA (US)

EP 001298443 A2 * 4/2003 G01R/31/319
JP 2003-198521 * 7/2003 G06F/1/10

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* cited by examiner

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(57) **ABSTRACT**

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A circuit and method are disclosed for adjusting the clock skew in a synchronous system. The circuit and method include initially applying an offset voltage to a data input of a device in the system. Next, the clock skew between a device and a data source providing data thereto is adjusted to approximately 180 degrees, by selecting the clock skew resulting in an approximately maximum DC offset appearing at the output of the device. Thereafter, the clock skew is shifted from approximately 180 degrees to the desired clock skew amount.

(65) **Prior Publication Data**

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(52) **U.S. Cl.** **713/500; 713/503; 713/400**

(58) **Field of Search** 713/400, 401, 713/500, 501, 502, 503, 600, 601

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,546,269 A * 10/1985 Johnson 713/503

43 Claims, 4 Drawing Sheets

