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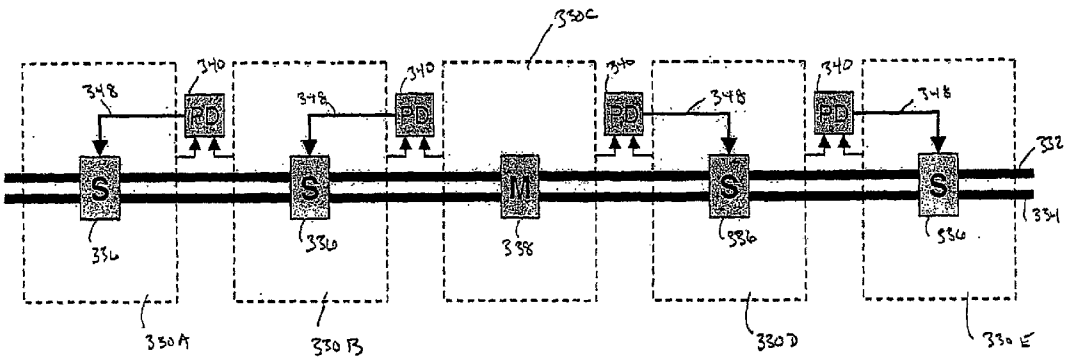
(54) Title: DC TECHNIQUE FOR ELIMINATING PHASE AMBIGUITY IN CLOCKING SIGNALS



(57) Abstract: An integrated circuit including: a clock signal distribution network for carrying two global clock signals traveling in opposite directions; a plurality of local clocking regions arranged along the network, each of which includes a local clock signal generation circuit that generates a local clock signal based upon the two global clock signals; and a plurality of phase detectors each of which is associated with a different one of the local clocking regions and is configured to compare the local clock signal for that local clocking region with the local clock signal for a neighboring local clocking region, wherein in each of at least some of the local clocking regions the local clock signal generation circuit is configured to align the local clock signal for that region with the local clock signal of the neighboring region when the phase detector for that local clocking region indicates a nonalignment condition exists.

WO 2007/067606 A3

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 06/46528

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - H03D 3/24 (2007.01)
USPC - 375/375
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)
IPC(8) - H03D 3/24 (2007.01)
USPC - 375/375

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
USPC - 375/371-376; 713/400, 401, 500-503, 600, 601 (text search - see terms below)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
PubWEST(PGPB,USPT,USOC,EPAB,JPAB); Google Scholar; IEEE Xplore
Search Terms: clock, global and local, phase, detect, 180 degree, skew, deskew, multiple or plural clocks

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X -- Y	US 6,943,610 B2 (Saint-Laurent) 13 September 2005 (13.09.2005), entire document, especially FIG. 3 & 4	1-5, 7, 8 and 10-12 --- 6, 9 and 13-17
Y	US 6,754,841 B2 (Yang) 22 June 2004 (22.06.2004), abstract	6
Y	US 5,394,490 A (Kato et al.) 28 February 1995 (28.02.1995), abstract and FIG. 1 & 2	9 and 14-17
Y	US 2001/0033630 A1 (Hassoun et al.) 25 October 2001 (25.10.2001), para. [0016]	13

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
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"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
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