Title (en)
TIMING-INSENSITIVE GLITCH-FREE LOGIC SYSTEM AND METHOD

Title (de)
ZEITSTEUERUNGSUNKRITISCHES GLITCH-FREIES LOGIKSYSTEM UND -VERFAHREN

Title (fr)
SYSTEME LOGIQUE INSENSIBLE AUX DEFAILLANCES ET AUX PROBLEMES DE SYNCHRONISATION ET PROCEDE ASSOCIE

Publication
EP 1417605 A4 20090715 (EN)

Application
EP 01967980 A 20010814

Priority
US 0125546 W 20010814

Abstract (en)
[origin: CA2420022A1] A timing insensitive glitch-free (TIGF) logic device which can take the form of any latch or edge triggered flip-flop. In one embodiment, a trigger signa l is provided to update the TIGF logic device. The trigger signal is provided during a short trigger period that occurs at adjacent times from the evaluation period (figure 59). In latch form, the TIGF latch includes a flip - flop that holds the current state of the TIGF latch until a trigger signal i s received (figure 59). A multiplexer is also provided to receive the new inpu t value and the old stored value. The enable signal functions as the selector signal for the multiplexer. In flip-flop form, the TIGF flip-flop includes a first flip-flop that holds the new input value, a second flip-flop that hold s the current stored value, and a clock edge detector. Hold time violations ar e avoided because one dedicated flip-flop stores the new input value which effectively blocks input changes during evaluation.

IPC 1-7
G06F 17/50

IPC 8 full level
G06F 11/22 (2006.01); **G06F 17/50** (2006.01)

IPC 8 main group level
G06F (2006.01)

CPC (source: EP KR)
G06F 1/04 (2013.01 - KR); **G06F 30/327** (2020.01 - EP); **G06F 30/331** (2020.01 - EP)

Citation (search report)
- [XY] US 5831866 A 19981103 - BURGUN LUC [FR], et al
- [X] US 5748911 A 19980505 - MAGUIRE DAVID J [US], et al
- [Y] US 6134516 A 20001017 - WANG STEVEN [US], et al
- See references of WO 03017148A1

Cited by
CN112328701A; CN112269728A; CN112445743A

Designated contracting state (EPC)
AT DE FI GB

DOCDB simple family (publication)
CA 2420022 A1 20030227; CN 100578510 C 20100106; CN 1491394 A 20040421; EP 1417605 A1 20040512; EP 1417605 A4 20090715; IL 154480 A0 20030917; IL 154480 A 20081126; JP 2005500625 A 20050106; JP 4125675 B2 20080730; KR 20040028599 A 20040403

DOCDB simple family (application)
CA 2420022 A 20010814; CN 01822790 A 20010814; EP 01967980 A 20010814; IL 15448001 A 20010814; IL 15448003 A 20030216; JP 2003521985 A 20010814; KR 20037002219 A 20030214