

Title (en)

CMOS DELAY CIRCUIT USING SUBSTRATE BIASING

Title (de)

CMOS VERZÖGERUNGSSCHALTUNG UNTER VERWENDUNG VON SUBSTRATVORSPANNUNG

Title (fr)

CIRCUIT CMOS A RETARD UTILISANT LA POLARISATION PAR SUBSTRAT

Publication

EP 1016212 A1 20000705 (EN)

Application

EP 99931253 A 19990702

Priority

- EP 99931253 A 19990702
- EP 9904708 W 19990702
- EP 98202357 A 19980714

Abstract (en)

[origin: WO0004638A1] A delay element (DL), for delaying a signal which propagates through the delay element (DL) by a delay, comprises a field effect transistor ($T>1<$) having a source, a drain, a gate, and a back-gate (BG). The back-gate (BG) is arranged to receive a control voltage ($V>cntrl<$). The control voltage ($V>cntrl<$) controls a current through the field effect transistor ($T>1<$). As a consequence, the delay is also controlled by the control voltage ($V>cntrl<$).

IPC 1-7

H03K 5/13

IPC 8 full level

H03K 3/354 (2006.01); **H03K 5/13** (2006.01); **H03L 7/099** (2006.01)

CPC (source: EP KR)

H03K 5/133 (2013.01 - EP); **H03K 5/134** (2014.07 - KR)

Citation (search report)

See references of WO 0004638A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

WO 0004638 A1 20000127; EP 1016212 A1 20000705; JP 2002520979 A 20020709; KR 20010030591 A 20010416

DOCDB simple family (application)

EP 9904708 W 19990702; EP 99931253 A 19990702; JP 2000560661 A 19990702; KR 20007002633 A 20000313