

Title (en)

REFERENCE SOURCE FOR FET INTEGRATED CIRCUITS AND METHOD USING SUCH A REFERENCE SOURCE

Publication

EP 0010149 B1 19820512 (DE)

Application

EP 79103255 A 19790903

Priority

DE 2842546 A 19780929

Abstract (en)

[origin: US4357571A] The exemplary embodiments concern reference sources for A/D and D/A converters, for example of a PCM telephone exchange system. Two separated stages which are supplied however from the same direct current supply source, contain in each case the series circuiting of at least one IG-FET and at least one load resistor. Between the taps of the stages, a differential voltage appears, which is used itself directly as a reference voltage, or indirectly is used for the setting of the value of a reference voltage, or of a reference current, for example by a voltage divider. The value of the reference voltage, or of the reference current, is also exactly adjustable after production of integrated modules, because in at least one of the two stages, at least one of the IG-FETs contains a memory gate which is at least partially applied between the controllable control gate and the channel area, is on all sides surrounded by an insulator, and thus is floating in the electrical sense.

IPC 1-7

G05F 3/20; **H01L 27/08**; **H01L 29/60**

IPC 8 full level

H03M 1/12 (2006.01); **G05F 3/20** (2006.01); **G05F 3/24** (2006.01); **H01L 27/08** (2006.01); **H01L 27/088** (2006.01)

CPC (source: EP US)

G05F 3/242 (2013.01 - EP US)

Designated contracting state (EPC)

AT CH FR GB IT NL SE

DOCDB simple family (publication)

EP 0010149 A1 19800430; **EP 0010149 B1 19820512**; AT E1034 T1 19820515; JP S5546694 A 19800401; US 4357571 A 19821102

DOCDB simple family (application)

EP 79103255 A 19790903; AT 79103255 T 19790903; JP 12425779 A 19790928; US 6821679 A 19790820