

Title (en)

Multi-input four quadrant multiplier.

Title (de)

Multieingangs-Vier-Quadranten-Multiplizierer.

Title (fr)

Multiplicateur quatre quadrants à entrées multiples.

Publication

EP 0356556 B1 19931027 (DE)

Application

EP 88114225 A 19880831

Priority

EP 88114225 A 19880831

Abstract (en)

[origin: EP0356556A1] For multiplying a plurality of signals with a further identical signal, a four quadrant multiplier on the basis of the Gilbert cell is employed, the transistors of the two coupled differential amplifier pairs of the one input, driven in the manner of the Gilbert cell via a diode-transistor path, of the inner multiplier are designed as multi-emitter transistors and in each case one emitter pair of the right and of the left multiplier branch can be driven counter to one another in each case via a controllable current source or the series circuit of a transistor and a current source. As a controllable current source, a switchable current source, which can be driven in particular by I<2>L gates, is proposed for processing square-wave signals. <IMAGE>

IPC 1-7

G06G 7/163; **G06J 1/00**

IPC 8 full level

G06G 7/163 (2006.01); **G06J 1/00** (2006.01); **H03C 1/54** (2006.01); **H03D 1/22** (2006.01); **H03D 3/06** (2006.01); **H03D 13/00** (2006.01)

CPC (source: EP US)

G06G 7/163 (2013.01 - EP US); **G06J 1/00** (2013.01 - EP US)

Cited by

EP0395894A3; EP0467387A3; EP0736966A1; EP0616423A1; US5514950A

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DOCDB simple family (publication)

EP 0356556 A1 19900307; **EP 0356556 B1 19931027**; AT E96558 T1 19931115; DE 3885280 D1 19931202; DK 426489 A 19900301; DK 426489 D0 19890830; ES 2045047 T3 19940116; FI 894071 A0 19890830; FI 894071 A 19900301; JP H02113382 A 19900425; PT 91582 A 19900308; PT 91582 B 19950718; US 5115409 A 19920519

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