

Title (en)

An integrated circuit with an external reference resistor network

Title (de)

Integrierte Schaltung mit einem externen Referenzwiderstandsnetzwerk

Title (fr)

Circuit intégré avec un réseau de résistances de références externes

Publication

EP 2701028 B1 20170405 (EN)

Application

EP 12175926 A 20120711

Priority

EP 12175926 A 20120711

Abstract (en)

[origin: EP2701028A1] An integrated circuit, IC, (1) comprising an integrated reference current generation circuit (2) adapted to generate a reference current (I ref) for said integrated circuit (1) and having reference voltage sources (1, 9) each supplying a reference voltage via a first and second integrated switch (SW1, SW2) to a corresponding amplifier (10, 12) that is adapted to regulate a control voltage of an integrated transistor (11, 13) connected to the respective amplifier such that the generated reference current (I ref) is a weighted sum of external currents (I 1 , I 2) each flowing through one of said integrated transistors (11, 13) via network connection pins (4-1, 4-2) of said integrated circuit (1) to an external reference resistor network (5) connected to said integrated circuit, IC (1); wherein said network connection pins (4-1, 4-2) are connectable to each other by means of a third integrated switch (SW3) and to a reference potential (GND) by means of said first and second switch (SW1, SW2); and an integrated control circuit (1) adapted to detect a failure in said external reference resistor network (5) on the basis of the monitored external currents (I 1 , I 2) and to control said integrated switches (SW1, SW2, SW3) such that the reference current (I ref) generated by said integrated reference current generation circuit (2) is maintained constant if a failure occurs in said external reference resistor network (5).

IPC 8 full level

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CPC (source: EP)

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Cited by

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