

Title (en)

CIRCUIT SYSTEM FOR REGULATING THE OPERATING POINT OF A POWER AMPLIFIER

Title (de)

SCHALTUNGSANORDNUNG ZUR REGELUNG DES ARBEITSPUNKTS EINES LEISTUNGSVERSTÄRKERS

Title (fr)

MONTAGE PERMETTANT DE REGLER LE POINT DE FONCTIONNEMENT D'UN AMPLIFICATEUR DE PUISSANCE

Publication

**EP 1133824 A1 20010919 (DE)**

Application

**EP 00960554 A 20000830**

Priority

- DE 19945709 A 19990923
- EP 0008458 W 20000830

Abstract (en)

[origin: WO0122573A1] The invention relates to a circuit system for controlling the transistor of a power amplifier. The aim of the invention is to provide a circuit system that has a minimum power consumption while allowing varying output power values. The inventive circuit is especially suitable for amplifiers in mobile telephones. The invention specifically relates to a circuit system that controls at least two different operating points for at least two different output ranges. At a first operating point the bias current in the transistor of the power amplifier is controlled by means of a first current level with a temperature-compensating active feedback circuit. At a second operating point the bias current in the transistor of the power amplifier is controlled by means of a second current level with a second feedback circuit. A third operating range is operated in the saturation mode and guarantees the maximum output efficiency at a maximum output power, the amplification being only partially linear.

IPC 1-7

**H03F 1/30**

IPC 8 full level

**H03F 1/02** (2006.01); **H03F 1/30** (2006.01)

CPC (source: EP US)

**H03F 1/302** (2013.01 - EP US); **H03F 2200/372** (2013.01 - EP US)

Citation (search report)

See references of WO 0122573A1

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

**WO 0122573 A1 20010329**; DE 19945709 A1 20010426; DE 19945709 C2 20020620; EP 1133824 A1 20010919; JP 2003510875 A 20030318; JP 3523638 B2 20040426; TW 461175 B 20011021; US 2001048347 A1 20011206; US 6529065 B2 20030304

DOCDB simple family (application)

**EP 0008458 W 20000830**; DE 19945709 A 19990923; EP 00960554 A 20000830; JP 2001525834 A 20000830; TW 89117626 A 20001017; US 86395501 A 20010523