

Title (en)

Voltage regulator and method of regulating voltage

Title (de)

Spannungsregler und Verfahren zur Spannungsregelung

Title (fr)

Régulateur de tension et méthode pour la régulation de tension

Publication

EP 0971280 A1 20000112 (EN)

Application

EP 98401714 A 19980707

Priority

EP 98401714 A 19980707

Abstract (en)

A voltage regulator (100) for a power amplifier of a portable communications device, comprises an operational amplifier (110) and a power transistor (20) connected together so as to perform a voltage regulation function with the output (113) of the operational amplifier connected to a control terminal (21) of the power transistor (20), wherein the power transistor has an associated capacitance Cgs such that the initial biasing of the power transistor requires a start-up current to be supplied to its control terminal to charge the associated capacitance. The voltage regulator (100) additionally comprises start-up current generation means (200) having a current node (300) connected to the control terminal of the power transistor for supplying additional current to the control terminal of the power transistor during start-up of the regulator whereby the initial biasing of the power transistor (20) is aided by the start-up current generation means (200). <IMAGE>

IPC 1-7

G05F 1/575; **G05F 1/565**

IPC 8 full level

G05F 1/565 (2006.01); **G05F 1/575** (2006.01)

CPC (source: EP)

G05F 1/565 (2013.01); **G05F 1/575** (2013.01)

Citation (search report)

- [XY] EP 0731553 A2 19960911 - SIEMENS AG [DE]
- [XA] EP 0749059 A2 19961218 - PHILIPS PATENTVERWALTUNG [DE], et al
- [YA] KMETZ G L: "SOFT-START REGULATOR STARTS AT OV", EDN ELECTRICAL DESIGN NEWS, vol. 41, no. 12, 6 June 1996 (1996-06-06), pages 104, 106, XP000622006

Cited by

FR2872305A1; EP1186983A3; EP1231529A1; FR2820904A1; EP1148405A1; FR2807847A1; US6388433B2; WO2005078932A1; US6650175B2; US7453249B2; JP2007518179A

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

EP 0971280 A1 20000112

DOCDB simple family (application)

EP 98401714 A 19980707