

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**