

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
6 December 2001 (06.12.2001)

PCT

(10) International Publication Number
WO 01/93409 A2

(51) International Patent Classification⁷: **H02M**
(21) International Application Number: PCT/US01/12907
(22) International Filing Date: 20 April 2001 (20.04.2001)
(25) Filing Language: English
(26) Publication Language: English
(30) Priority Data:
09/586,664 1 June 2000 (01.06.2000) US
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(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

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Declaration under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for all designations*

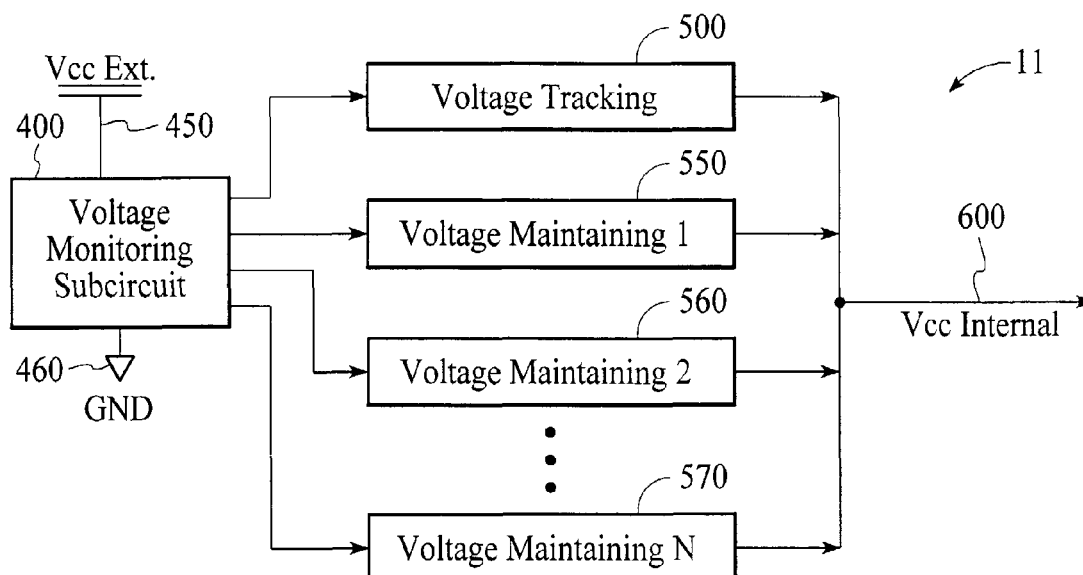
Published:

— *without international search report and to be republished upon receipt of that report*

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[Continued on next page]

(54) Title: LOW POWER VOLTAGE REGULATOR CIRCUIT FOR USE IN AN INTEGRATED CIRCUIT DEVICE



(57) Abstract: A voltage regulator circuit (11) that receives an input signal (450) and provides an output signal (600) that is clamped at a specified voltage desired for an internal circuit. The disclosed voltage regulator circuit includes a plurality of subcircuits including a voltage tracking subcircuit (500) in which the output voltage tracks the input voltage with no voltage drop when the input voltage starts to rise from zero volts. In the input voltage increases to a desired voltage level for the internal circuit, the voltage tracking subcircuit (500) clamps the output voltage to remain at that voltage. If the input voltage further increases to a higher voltage, the voltage tracking subcircuit (500) is disabled and one of a plurality of voltage maintaining subcircuits (550, 560, 570) takes control so that the output voltage remains at the desired voltage for the internal circuit.



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