

Title (en)

PRECISION GRADIENT AMPLIFIER WITH MULTIPLE OUTPUT VOLTAGE LEVELS

Title (de)

PRÄZISIONSGRADIENTENVERSTÄRKER MIT MEHREREN AUSGANGSSPANNUNGSPEGELN

Title (fr)

AMPLIFICATEUR DE GRADIENT IRM DE PRECISION PRÉSENTANT PLUSIEURS NIVEAUX DE TENSION DE SORTIE

Publication

EP 1595159 A1 20051116 (EN)

Application

EP 04704295 A 20040122

Priority

- IB 2004000180 W 20040122
- US 44455803 P 20030203

Abstract (en)

[origin: WO2004070411A1] A controlled power supply (201, 222) drives a magnetic field gradient coil (161) of a magnetic resonance imaging apparatus (10). A gradient amplifier (201) includes a plurality of switching power regulators (50, 52, 54, 56) which are electrically connected in series. A bipolar circuit (70) receives power from the series connected switching power regulators (50, 52, 54, 56) and delivers the power at a selected polarity to the gradient coil (161). A control circuit (221) delivers phase staggered pulse width modulated control signals (A, B, C, D) to the switching power regulators (50, 52, 54, 56).

IPC 1-7

G01R 33/385

IPC 8 full level

G01R 33/385 (2006.01)

CPC (source: EP)

G01R 33/3852 (2013.01)

Citation (search report)

See references of WO 2004070411A1

Cited by

US9551767B2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2004070411 A1 20040819; CN 1745315 A 20060308; EP 1595159 A1 20051116; JP 2006516439 A 20060706

DOCDB simple family (application)

IB 2004000180 W 20040122; CN 200480003381 A 20040122; EP 04704295 A 20040122; JP 2006502365 A 20040122