

Title (en)
OPTIMIZATION OF IMPEDANCE SIGNALS FOR CLOSED LOOP PROGRAMMING OF CARDIAC RESYNCHRONIZATION THERAPY DEVICES

Title (de)
OPTIMIERUNG VON IMPEDANZSIGNALEN FÜR DIE GESCHLOSSENKREISLAUF-PROGRAMMIERUNG VON HERZSYNCHRONISATIONS-THERAPIEVORRICHTUNGEN

Title (fr)
OPTIMISATION DES SIGNAUX D'IMPEDANCE POUR LA PROGRAMMATION EN BOUCLE FERMEE DES DISPOSITIFS DE THERAPIE DE RESYNCHRONISATION CARDIAQUE

Publication
EP 1660176 A4 20131127 (EN)

Application
EP 04781963 A 20040820

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Abstract (en)
[origin: WO2005018570A2] The present invention is related to implantable cardiac devices such as pacemakers and defibrillators that deliver cardiac resynchronization therapy (CRT), and to a method of optimizing acquisition of impedance signals between electrodes present on implanted lead systems. This system then automatically determines which electrodes or electrode combinations acquire impedance waveforms that have the best signal to noise ratio (highest fidelity) and characterize data most representative of dysynchronous electro-mechanical events. Using closed loop algorithms which provide electrograms and a variety of impedance data reflective of the patient's clinical status, the system autonomously modifies interval timing within the CRT device.

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A61N 1/00 (2006.01); **G06K 9/00** (2006.01)

IPC 8 main group level
A61K (2006.01)

CPC (source: EP)
A61N 1/00 (2013.01); **G06F 18/00** (2023.01); **G06F 2218/00** (2023.01)

Citation (search report)
• [X] WO 9952591 A1 19991021 - INTERMEDICS INC [US]
• [X] US 2003013977 A1 20030116 - DAUM DOUGLAS [US]
• [X] EP 0338363 A2 19891025 - SIEMENS ELEMA AB [SE], et al
• [X] EP 0449401 A2 19911002 - CARDIAC PACEMAKERS INC [US]
• See references of WO 2005018570A2

Citation (examination)
• GABRIEL GREGORATOS ET AL: "ACC/AHA/NASPE 2002 Guideline Update for Implantation of Cardiac Pacemakers and Antiarrhythmia Devices- Summary Article", JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY., vol. 40, no. 9, 1 November 2002 (2002-11-01), US, pages 1703 - 1719, XP055227467, ISSN: 0735-1097, DOI: 10.1016/S0735-1097(02)02528-7
• WILLIAM T. ABRAHAM ET AL: "Cardiac Resynchronization in Chronic Heart Failure", NEW ENGLAND JOURNAL OF MEDICINE, vol. 346, no. 24, 13 June 2002 (2002-06-13), pages 1845 - 1853, XP055227469, ISSN: 0028-4793, DOI: 10.1056/NEJMoa013168

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